



## GOVERNANCE AND MANAGEMENT



**Chancellor**  
Dr. K.M. Birla



**Pro-Chancellor**  
Smt. Shobhana Bhartia



**Vice-Chancellor**  
Prof. B.N. Jain

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Prof. K.E. Raman  
*Director (Acting), K.K. Birla Goa Campus*

Prof. V.S. Rao  
*Director, Hyderabad Campus*

Prof. Ranendra N. Saha  
*Director, Dubai Campus*

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*Director, Special Projects*

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*Chief Financial Officer (on-deputation)*

Prof. Sanjay Kumar Verma  
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*Dean, Work Integrated Learning Programmes*

Prof. Suman Kapur  
*Dean, International Programmes and  
Collaboration*

## A.1 HIGHLIGHTS OF ACHIEVEMENTS DURING THE YEAR 2013

The university made rapid strides during the year 2013 in its march to become one of the top research led technical universities in the country and in Asia. Some of the highlights are:

1. Convocation ceremony was held at the Pilani campus on 4th August 2013. Padma Bhushan Dr. K. Srinath Reddy, President of Public Health Foundation of India (PHFI) graced the occasion as the Chief Guest. 828 graduating students of first degree, 301 higher degree and 47 Ph.D. programmes were awarded degrees on the occasion. Convocation at the Dubai campus was held on 8th September 2013.



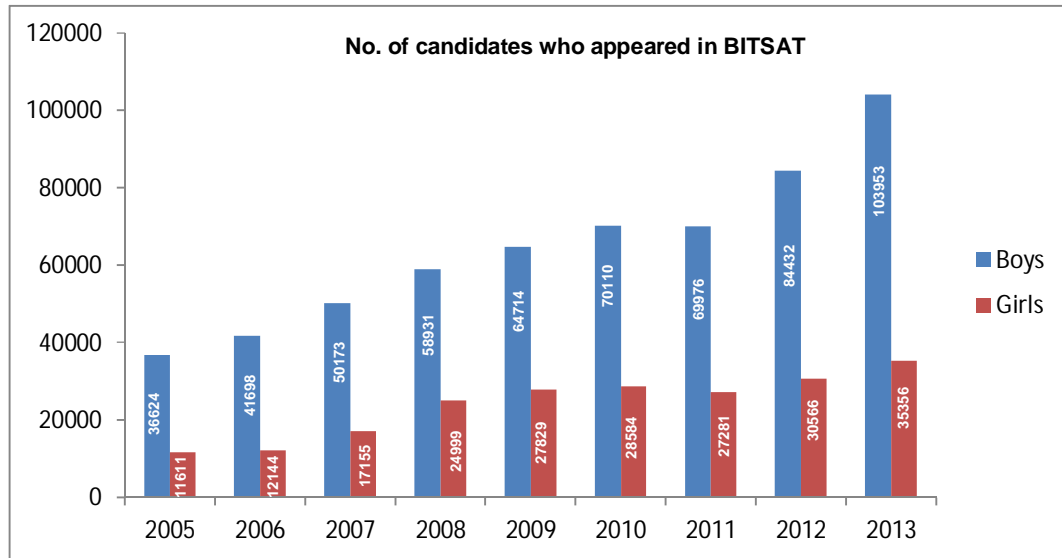
358 graduating students of Dubai Campus received their degrees in the presence of senior government officials of the UAE, dignitaries, parents, friends and teachers. The Chief Guest on the occasion was Padmashri Kiran Karnik, Member of the Scientific Advisory Council to the Prime Minister of India. Convocation of the K.K. Birla Goa Campus was held on 11th August, 2013. Shri Rahul Dravid was the Chief Guest. 687 students were awarded the degrees. In Hyderabad campus, convocation was held on 21<sup>st</sup> July 2013. Chief Guest was Dr (Smt) D. Purandeswari, Hon'ble Minister of State for Commerce and Industry, Government of India. Degrees were awarded to 613 students who have qualified in second Semester 2012-13.

2. On 9th January 2013, BITS Pilani along with BITSAA, its global alumni association, launched a first of its kind multi-million dollar cross-campus technology initiative named BITS Connect 2.0. Pioneering a unique model of multi-campus education in India, the initiative comprises Immersive Telepresence, High-definition Video conferencing and Live Streaming technologies, that are set to transform the learning experience by connecting all campuses at an unprecedented scale. This University-Alumni initiative was launched simultaneously at Pilani, Goa and Hyderabad campuses, while being connected to Cisco's offices in San Jose and Boston. His Excellency the Governor of Goa, Shri Bharat Vir Wanchoo and Shri J Satyanarayana, Secretary, Department of IT, Government of India. Vice Chancellor, Prof. B.N. Jain, Director and senior faculty graced the occasion.



3. On the occasion of the Convocation 2013 at Pilani, the following five illustrious alumni of BITS were conferred Distinguished Alumnus Awards : Mr. Pankaj Patel (Exec VP, Cisco Systems) for Professional management of businesses, Mr. Rajesh Hukku (VP, Oracle) for Entrepreneurship, Prof. S. P. Kothari (Deputy Dean, Sloan School, (MIT) for Academic Teaching and/or Research, Mr. Ramesh Ramanathan , (Founder, Janaagraha) for Public Life and Social Entrepreneurship and Dr. Vijay Chandru (Founder, Strand Life Sciences) for Entrepreneurship. Dr Vijay Chandru received the award in person.
4. Padmashri (Dr.) G.N. Rao, Founder and Chairman, L V Prasad Eye Institute (LVPEI), Hyderabad delivered the 6th V. Lakshminarayanan Oration Lecture on Friday, 11th January 2013 at the Pilani campus. The topic of the oration was ' Research, education and public good', Dr Rao spoke about the researches undertaken by the LVPEI and how they have helped in building a structural and functional architecture supported evidence based medicine.
5. BITS Pilani and its campuses fared very well in all media ranking of engineering colleges during 2013. The following are the rankings this year : In **India Today** ranking of Top Engineering Colleges, BITS was placed at the top 6<sup>th</sup> position (Ref : India Today, June 24, 2013). **The Week** – Best Engineering Colleges, puts BITS in the top 7<sup>th</sup> position (Ref: The Week, dated June 9, 2013). **Outlook** – India's Top Engineering Colleges, puts BITS in the top 7<sup>th</sup> position. (Ref: Outlook, dated July 1, 2013). Further, in all the above rankings, BITS occupies the topmost position among all private colleges of the country.

6. Number of candidates who wrote the BITSAT admission test increased from 114998 in 2012 for 2127 seats to 139309 in 2013 for 2113 seats. The number of girl candidates writing the BITSAT increased from



30566 in 2012 to 35356 in 2013. Simultaneously, the number of BITSAT centers increased from 32 centers in 2012 to 40 centers in 2013.

7. 20 Board toppers joined the BITS in 2013.
8. Number of students registered for different programs in the university during 2013 was: 21556 in Second Semester 2012-13 and 22075 in First Semester 2013-14.
9. Total number of courses offered in the university was: 622 in Second Semester 2012-13 and 627 in First Semester 2013-14.
10. The university signed MOUs with 4 globally reputed organizations during the year. They are listed in Section A.7 of the Quick Glance Section.
11. Project Parivartan announced by Chancellor Dr. Kumar Mangalam Birla in November 2011 made significant progress during the year. A new boys hostel, Srinivas Ramanujan Bhavan was opened for students in July 2013. Work on the new academic block, students hostel, faculty residence complex, workshop at Pilani made rapid progress during the year and are about to be completed.
12. During the year 2013, Pilani Innovation and Entrepreneurship Development Society has been registered as a society under the Rajasthan Societies Act, 1958 for promoting innovation and entrepreneurship.
13. At Hyderabad campus, an auditorium with a seating capacity of 2500 spread out in 1,44,444 sft is in its advanced stage of completion.
14. A TBI was launched in Goa campus on 2nd March 2013 with the aim of promoting innovation and entrepreneurship. Supported by Department of Information Technology, Government of India under the TIDE program, some areas of active work in the TBI are : Interactive Learning, Financial Analysis and Biotechnology. Start ups, with total funding nearing a crore, are incubating in the TBI. One of the incubates, Cubito.in, has graduated successfully from the incubator and is doing good business in Bangalore.
15. TBI was inaugurated in Hyderabad campus on 15th August 2013. TBI was supported by Department of Science and Technology (DST) with a grant of Rs 5 Cr and a supporting grant of Rs 2.5 cr. by BITS.
16. Nine families of 1960-65 batch made a re-union visit to the Pilani campus on 18 February 2013. Also, 170 alumni members of 1984-88 batch and their families made a Silver Jubilee reunion visit to Pilani campus on 18-20 October 2013.





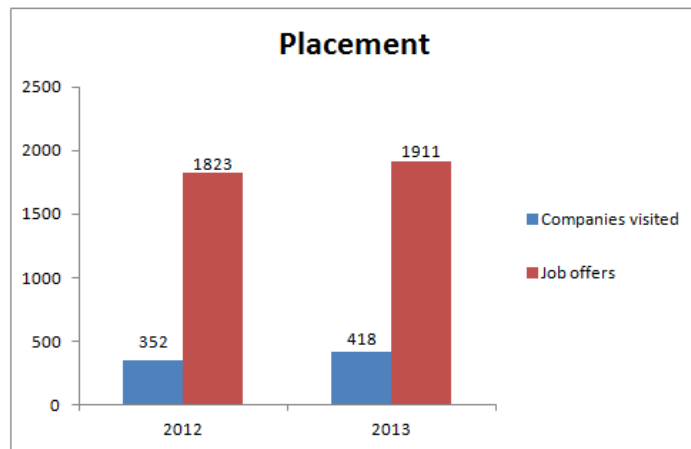
17. Two newly built state of the art basket ball courts with 8 layered Latex synthetic flooring system, padded umbrella poles with dunking ring facility, electronic score displays, new lighting system and new pavilions were gifted to the Institute by Mr. M.P. Sharma, an alumnus of 1967 batch.



18. Interactions with alumni members were organized in all the campuses. That included the interaction with the following alumni at Pilani: on 20th May 2013: with Prof Narendra Ahuja, an alumnus of 1972 batch and at present, Professor in the Department of Electrical and Computer Engineering at University of Illinois– Urbana Champaign; on 3<sup>rd</sup> August 2013 with Dr Vijay Chandru, Distinguished Alumnus Awardee; on 9th August 2013: with Prof Autar Kaw, a BITS alumnus (1981 batch) and presently Professor of Mechanical Engineering and Jerome Krivanek Distinguished Teacher at the University of South Florida. Alumni members also delivered several Embryo lectures both in Pilani and Goa campuses during the year.

19. 81 faculty members joined while 54 faculty members left the different campuses during the year for reasons such as resigned, term expired or retired.

20. Campus placement improved during the year. Four campuses put together, number of companies visiting our campuses for recruitment rose from 352 in 2012 to 418 in 2013. And the number of job offers rose from 1823 in 2012 to 1911 in 2013.



21. Three students of Pilani campus got job offers with salary package of US \$ 225 thousand (INR1.22 Cr) by Google during the year.

22. 28 courses were conducted through Telepresence classrooms, set up through BITSCONnect 2.0.

23. The year witnesses several conferences, seminars and workshops organized in different campuses of BITS. They include: *National Workshop on Modeling and Computation* at Pilani on 23-24 February 2013; *Workshop on Analytical Instruments for Chemical and Environmental Engineers*, Pilani, March 22-23, 2013; *International Conference on Advanced Electronic Systems*, Pilani, 21-23 September 2013; *Workshop on Control System design using MATLAB for NTPC Engineers*, Pilani, October 21-26, 2013; *Workshop on Texas Instruments C 2000 & MSP 430 Microcontroller*, Pilani, 22-26 October 2013; *Indo-German Workshop on Green Manufacturing*, Pilani, 7 November 2013; *Interactive session on "What corporates expect from a young graduate engineer"*, Dubai, 22 April 2013; *Interactive session on "Collaborative Processes of Institute, Students and Alumni for Industry readiness"*, Dubai, 17 September 2013; *Interactive Session on "Entrepreneurship as a career option for young men and women"*, Dubai, 28 November 2013; *Interactive Session on "Data mining and its applications"*, Dubai, 18 December 2013; *Workshop on Improving Classroom Effectiveness*, Dubai, 23 December 2013; *Workshop on Computational Fluid Dynamics*, Goa, 2-5 January 2013; *Research Promotion Workshop on "Introduction to Graph and Geometric Algorithms"*, Goa, 17-19 January 2013; *HIGGSTOP 2013*, Goa, 25-27 February 2013; *International Conference on Emerging Technologies: Micro to Nano*, Goa, 23-24 February 2013; *International Workshop on Data Analytics & Applications*, Goa, 26 February - 1 March 2013; *Workshop on Negotiations and Negotiating*, Goa, 8-9 March 2013; *Introductory Workshop on Mathematica*, Goa, 24-25 July 2013; *National Workshop on Innovative Pedagogies for Enhancing the Employability Skills of Students*, Goa, 4-6 September 2013; *Faculty Development Program on "ACAD based engineering drawing course"*, Goa, 24-25 October 2013; *3rd Annual Conference of the Toxicological Society of India & 1st International Conference on Biology of Natural Toxins*, Goa, 19-21 December 2013; *Advanced Workshop on "Mathematical Foundation of Advanced Finite Element Methods"*, Goa, 26 December 2013; *Workshop on "Indian trade and banking"*, Hyderabad, 16 April 2013; *Workshop on "SPSS Hands on Experience"*, Hyderabad, 27 April 2013; *Workshop on "Engineering the eye"*, Hyderabad, 7-13 July 2013; *Workshop on Research Methods for first degree and higher degree thesis students*, Hyderabad, 14 September 2013; *Workshop on "Basics & Operational aspects of stock(market) trading"*, Hyderabad, 16 September 2013; *National Conference on "Rethinking the Role of Humanities in Technical Education"*, Hyderabad, 18-19 October 2013.

24. Prof. R N Saha of Pilani campus was awarded 'Pharmaceutical Professional of the Year 2013' by Indian Association of Pharmaceutical Scientists and Technologists (IAPST).
25. Prof R P Pareek of Pilani campus was awarded "Fellow of Indian College of Physicians (FICP) during the year. Also he won the 'Distinguished Senior Physician Award' for outstanding contribution in the field of medicine at the 24th Annual Conference of Association of Physicians of India, Rajasthan Chapter.
26. In Goa campus, the funding of R&D projects approved by various agencies has grown from Rs 726.6 lakhs in 2012 to Rs. 901 lakh in 2013. Notable among them are DST (Rs 284.58 lakhs), ICAR (Rs. 237.00 lakhs), CSIR (Rs. 119.02 lakhs), BRNS (Rs. 59.02 lakhs) and DBT (22.83 lakhs).
27. In Goa campus, a total of eight patents (including 2 international patents) have been filed in various areas such as Biosensor (4), Biotechnology (2), Humanities (1) and Advanced Graph Theory and Gravitational wave data analysis (1). Of these, two have been published and 1 granted.
28. In Hyderabad campus, for the academic year 2012-2013, 25 research projects were sanctioned for an amount of Rs.5.6 crores. Some more projects have been approved and the grants are expected to be released shortly by the funding agencies.
29. Prof D. Sriram and Prof Amit Kumar Gupta of Hyderabad campus received UGC Researcher award for their outstanding contribution in area of Pharmaceutical Science and Mechanical Engineering respectively.
30. Prof P. Yogeeshwari of Hyderabad campus received the 'Shakuntala Amir Chand Prize" from ICMR in August 2013.
31. Prof. Suman Kapur of Hyderabad campus developed a point-of-care device for measuring blood glucose sensing. The device is based on a finger prick with a micro-needle, after which red blood cells from the blood are trapped in a specially designed plug and the plasma is allowed to pass through. The end product is development of a color corresponding to plasma glucose levels. The major advancement is on ease of use without any loss in sensitivity. Additional advancement is that smaller drop volumes enables "alternate site testing" - pricking the forearms or other less sensitive areas instead of the fingertips in case of diabetic people who need to monitor plasma glucose every time before taking insulin shots - at least two or more times a day!
32. On 23rd April 2013, the students of Dubai campus won many prizes in the First UAE Undergraduate Research Competition conducted by Abu Dhabi University. Deepan Kishore Kumar won the First Prize (10000 AED Cash) under "Natural & Health Sciences Category" . Deepan Kishore Kumar and Anomita Benerjee won the Second Prize ( 7000 AED Cash) under "Engineering Sciences" category and Sayed Aaqub Hazari, Anirudh Valluri and Arjun Arya won the Third Prize (5000 AED Cash) under "Engineering Sciences" Category. Niyati Parameswaran won the Third Prize (5000 AED Cash) under "Information Technology" Category.
33. On 4th May 2013, Ben Anthony, Jerin Philip, Samson Varghese and Deol Adhithia of Dubai campus won the best Idea Prize in prototype competition for their work on "Conversion of Waste Vegetable Oil into Biodiesel" in the Engineering Students Renewable Energy Competition 2013 (ESREC 2013) at UAE University.
34. The paper, "Social media security strategy architecture for online reputation management" by Nilay Kumar Kiran Sangani, Vijayakumar B and Madijagan M, of Dubai campus won the best Paper Award at the International Conference on Innovative Technologies, IN-TECH 2013 held at Budapest, Hungary on 10-13 September 2013.
35. Mr Adarsh Venkatraman of Dubai campus was selected as a finalist in the 2013 ASME Young Engineers' Paper (YEP) Contest. He was invited to present his paper in the YEP Session of the ASME International Mechanical Engineering Congress (IMECE 2013) held at San Diego, US on 5-12 November 2013.
36. On 7th December 2013, Dubai campus students, Harsh Hirani, Vineet Parekh, Rushabh Gosar, Zaidali Khoja and Sagar Walia won the IIE Dubai International Business Plan Competition for the work titled, "Business pain-Zink".
37. In March 2013, **Mission 2015**, the next milestone in the journey towards Vision 2020, was formally launched. The Mission 2015, expected to bring a quantum jump in the aspirations of the objectives set forth, entails focusing on 7 imperatives: Faculty & Staff Development, Industry Engagement, Inter-Disciplinary Research, Internationalization, Innovation & Entrepreneurship, Quality Assurance & Assessments and Technology Enablement. One team per imperative has been identified and the teams have already started working on refining and actioning the goals.

## A.2 ADMINISTRATIVE APPOINTMENTS

The following administrative appointments were made during the year:

- A. Prof. Sanjeev Kumar Aggarwal, has been appointed as Senior Professor w.e.f. 30-07-2013 and taken over charge as Director, BITS, Pilani - K.K. Birla Goa Campus w.e.f. 12-08-2013.
- B. Prof. Ajit Pratap Singh was appointed as Dean of Admissions (University Wide) with effect from 20<sup>th</sup> December 2013 upto 15-06-2015.
- C. Following have been appointed as Professor In-charges of the Division mentioned against their names.

S.No.	Name	Divisions	w.e.f.
(a)	<u>Pilani Campus:</u>		
1.	Prof. Sanjeev Kumar	Sponsored Research and Consulting	03-09-2013
2.	Prof. Srikanta Routroy	Instruction	05-11-2013
3.	Prof. Bijay Kumar Rout	Academic Registration & Counselling	05-11-2013
(b)	<u>Hyderabad Campus:</u>		
4.	Prof. Srinivasa Prakash Regalla	Faculty Affairs	01-08-2013

- D. The following were appointed as Head of Departments at BITS, Pilani - K.K. Birla Goa Campus mentioned against their names for a term of two years with effect 21-11-2013.

S.No.	Name	Department
1.	Dr Shibu Clement	Mechanical Engineering
2.	Prof. M. K. Deshmukh	Electrical & Electronics Engineering, Electronics & Instrumentation
3.	Dr. Srinivas Krishnaswamy	Chemical Engineering
4.	Dr. Bharat M. Deshpande	Computer Science and Information Systems
5.	Dr. Gaurav Dar	Physics
6.	Dr. Raghu Nath Behera	Chemistry
7.	Dr. Meenal Kowshik	Biological Sciences
8.	Dr. Prasanna Kumar N.	Mathematics
9.	Prof. Meenakshi Raman	Humanities and Social Sciences
10.	Dr. Debasis Patnaik	Economics

- E. Following have been appointed as Chief of the Unit mentioned against his name for the residual term ending on 31-08-2014.

S.No.	Name	Unit	w.e.f.
<u>Pilani Campus:</u>			
1.	Prof. N.V. Muralidhar Rao	Centralized Purchases	04-12-2013

- F. Dr. Champak Baran Das was appointed as Chief Warden with effect from 3<sup>rd</sup> September 2013.
- G. The following faculty members have been appointed as Resident Wardens of the hostels noted against their names with effect from 1<sup>st</sup> August 2013.

S.No.	Name	Hostel
1.	Prof. Sanjiv Kumar Choudhary	Krishna Bhawan
2.	Prof. Hari Om Bansal	Gandhi Bhawan
3.	Prof. Srikanta Routroy	Shankar Bhawan
4.	Prof. Sai Jagan Mohan	Vyas Bhawan
5.	Prof. Kumar Neeraj Sachdev	Budh Bhawan & Malviya Bhawan-D Block
6.	Dr. Rajesh Prasad Mishra	Ashok Bhawan & Bhagirath Bhawan
7.	Mr. Jitendra Singh Rathore	Vishwakarma Bhawan

S.No.	Name	Hostel
8.	Prof. Hitesh Datt Mathur	Srinivasa Ramanujan Bhawan
9.	Dr. R Raghunathan	Rana Pratap Bhawan
10.	Prof. Surekha Bhanot	Meera Bhawan
11.	Prof. Kusum Lata	Meera Bhawan
12.	Prof. Champak Baran Das	Malviya Bhawan – A, B & C Blocks

The names and designations of senior officers of different campuses are given in Annexures (Pilani Campus, Annexure B1-16; K.K. Birla Goa Campus, Annexure B2-1; Hyderabad Campus, Annexure B3-1 and Dubai Campus, Annexure B4-1).

## A.3 ADMINISTRATIVE BODIES

### General Body

The General Body of the Institute held its 52<sup>nd</sup> Meeting on 20th March 2013 under the Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute. Details are given in Annexure A-1.

### Board of Governors

The Board of Governors of the Institute held its 66<sup>th</sup> Meeting on 20th March 2013 under the Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute. Details are given in Annexure A-2.

### Finance Committee

The Finance Committee of the Institute held its 52<sup>nd</sup> Meeting on 20th March 2013 under the Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute.

### Senate

The Senate of the Institute met two times during the year. It held its 165<sup>th</sup> and 166<sup>th</sup> meetings on 13<sup>th</sup> March 2013 and 18<sup>th</sup> July, 2013 respectively.

### Examination Committee

The Examination Committee met 12 times during the year for analysis and declaration of grades; approval of Ph.D. Thesis Reports; approval of the award of degrees/medals for the eligible students; deciding cases of scrutiny, unfair means and related matters

## A.4 ADMISSIONS

### BITSAT 2013

A total of 139309 candidates, including 35356 girls, from all over the country took the BITSAT 2013 test. The candidates had the option of choosing their own centers, date and time for the test, which was conducted during 14<sup>th</sup> May – 30<sup>th</sup> May, 2013.

#### BITSAT 2013 Highlights are

- Computer-based objective type online test, conducted from 14 May 2013 to 30 May 2013 in 40 centers across India and in Dubai.
- 139309 candidates appeared in BITSAT-2013 for 2113 Seats.
- Use of Secure High-end Technology.
- Choice of Date, Time and Center for Candidates, and immediate Result on Computer Screen.
- Eligibility criteria for admission to Integrated First degree programmes: A Minimum 75% aggregate marks in Maths, Physics & Chemistry with a minimum of 60% in each (in 10+2 stream). In addition, Direct Admission offers were made to Board Toppers irrespective of their BITSAT score. 20 board toppers joined BITS in 2013.

The results of admissions to BITS were made available on Internet. Candidates applying for admission to BITS could find the latest information on the status of their application at <http://www.bitsadmission.com/>. Information on waiting list status, fee payment status etc. was made available and thousands of applicants used this instant access for information.



The number of admissions made to various programmes of the Institute in the year 2013 are given in the table below. The numbers in brackets indicate number of female students. The details such as programme-wise cut-off scores etc. are given in *Annexure A-3*. A comparison of the cut-off marks/scores for admissions to BITS since 1966 are given in *Annexure A-4*.

	II Semester 2012-2013	I Semester 2013-2014
<b>1. BITS Pilani – Pilani Campus</b>		
Integrated First Degree Programmes	-	846(122)
Higher Degree Programmes	-	265( 74)
Doctoral Programmes	38(14)	43( 19)
<b>Total</b>	<b>38(14)</b>	<b>1154(215)</b>
<b>2. BITS Pilani – K.K. Birla Goa Campus</b>		
Integrated First Degree Programmes	-	604(74)
Higher Degree Programmes	-	58(16)
Doctoral Programmes	8(3)	24(13)
<b>Total</b>	<b>8(3)</b>	<b>686(103)</b>
<b>3. BITS Pilani – Hyderabad Campus</b>		
Integrated First Degree Programmes	-	698(139)
Higher Degree Programmes	-	61( 16)
Higher Degree (3 year Integrated Programmes)	-	10( 01)
Doctoral Programmes	20(07)	35( 09)
<b>Total</b>	<b>20(07)</b>	<b>804(165)</b>
<b>4. BITS Pilani – Dubai Campus</b>		
Integrated First Degree Programmes	1(01)	378(114)
Higher Degree Programmes	42(13)	-
Doctoral Programmes	2(01)	7( 06)
<b>Total</b>	<b>45(15)</b>	<b>385(120)</b>
<b>5. Work-Integrated Learning Programmes</b>		
Integrated First Degree Programmes	443(0064)	928(103)
Higher Degree Programmes	5771(2751)	2353(557)
<b>Total</b>	<b>6214(2815)</b>	<b>3281(660)</b>
<b>GRAND TOTAL</b>	<b>6325(2854)</b>	<b>6310(1263)</b>

## A.5 FLEXIBILITIES: DUAL DEGREE ADMISSIONS

During the Academic year 2013-2014, 547 students (220 at Pilani, 170 at Goa and 155 at Hyderabad and 2 at Dubai) were permitted to work concurrently for two first degrees under Dual Degree scheme. Details are given in Annexure A-5.

## A.6 AWARD OF DEGREES AND MEDALS

### (a) Award of Degrees

During the year, a total of 8259(2038) degrees awarded. The details on the award of degrees are given below. The numbers in brackets indicate number of female students.

	Number of degrees awarded				
	Pilani Campus	Goa Campus	Hyderabad Campus	Dubai Campus	WILP
72 <sup>nd</sup> Award (vide Board of Governors meeting held on 20.03.2013)	161(38)	87(10)	37(7)	53(10)	3007(895)
73 <sup>rd</sup> Award (vide Board of Governors approval on 19.07.2013)	1225(224)	749(142)	727(187)	310(103)	1903(422)
<b>Total</b>	<b>1386(262)</b>	<b>836(152)</b>	<b>764(194)</b>	<b>363(113)</b>	<b>4910(1317)</b>

74 <sup>th</sup> Award (subject to approval of Board of Governors in the next meeting)	78(21)	54(4)	62(9)	48(09)	2444(596)
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### (b) Award of Medals for Academic Year 2012-2013

#### BITS Pilani - Pilani Campus

The list of students who were awarded various medals, for the students graduated at the end of First Semester, Second Semester and Summer Term of the academic year 2012-2013 has been given in the following table:

S.No.	ID.No.	Name	Sex	CGPA Obtained	Position Obtained	Type of Medal to be Awarded
Integrated First Degree Programmes (No. of students: 823)						
1.	2009A3PS028P	Swapnil Dineshchandra Haria	M	10.00	FIRST	GOLD
2.	2009A7PS285P	Roney Michael	M	9.85	SECOND	SILVER
3.	2009A3PS068P	Neha Mittal	F	9.84	THIRD	BRONZE

### **BITS Pilani - K.K. Birla Goa Campus**

<b>S.No.</b>	<b>ID.No.</b>	<b>Name</b>	<b>Sex</b>	<b>CGPA Obtained</b>	<b>Position Obtained</b>	<b>Type of Medal to be Awarded</b>
Integrated First Degree Programmes (No. of students: 558)						
1.	2009A7PS011G	TUSHAR MANDAR	M	9.79	FIRST	GOLD
2.	2009A3PS083G	JOSHI ABHIJIT MOHAN	M	9.56	SECOND	SILVER
3.	2009A3PS001G	CHITHRA	F	9.53	THIRD	BRONZE

### **BITS Pilani - Hyderabad Campus**

<b>S.No.</b>	<b>ID.No.</b>	<b>Name</b>	<b>Sex</b>	<b>CGPA Obtained</b>	<b>Position Obtained</b>	<b>Type of Medal to be Awarded</b>
Integrated First Degree Programmes (No. of students: 570)						
1.	2009A7PS009H	DIVYA RAVI	F	9.84	FIRST	GOLD
2.	2009AAPS013H	CHETLUR RAVI VISHNU VARDHAN	M	9.82	SECOND	SILVER
3.	2009AATS008H	CHALLA SAMYUKTHA	F	9.71	THIRD	BRONZE

### **BITS Pilani - Dubai Campus**

<b>S.No.</b>	<b>ID.No.</b>	<b>Name</b>	<b>Sex</b>	<b>CGPA Obtained</b>	<b>Position Obtained</b>	<b>Type of Medal to be Awarded</b>
Integrated First Degree Programmes (No. of students: 330)						
1.	2009A7PS079U	DEEPTI S PRAKASH	F	10.00	FIRST	GOLD
2.	2009AAPS060U	ASMA FATHIMA	F	9.93	SECOND	SILVER
3.	2009A4PS278U	SIDDHANT MAHESHWARI	M	9.85	THIRD	BRONZE

## **A.7 MoUs**

The Institute has signed the Memoranda of Understanding with the following reputed organizations during 2013:

1. "n+i" Networks of Engineering Institutes called "n+i", France.
2. Vedanta Aluminium Limited, Jharsuguda
3. TATA Technology Limited, Pune
4. ETA Network of Education & Training, Dubai, UAE.

## A.8 NUMBER OF STUDENTS REGISTERED

	No. of Students Registered					Total
	Pilani Campus	Goa Campus	Hyderabad Campus	Dubai Campus	Work-Integrated Learning Programs	
Second Semester 2012-2013	4309	2746	2922	1457	21556	32990
First Semester 2013-2014	4463	2810	3142	1516	22075	34006
Summer Term 2012-2013	866	606	634	427	-	2533
<b>GRAND TOTAL</b>						<b>69529</b>

The above table includes students registered in First Degree, Higher Degree and Ph.D. Programmes.

During Second Semester 2012-2013, a total of 626 Ph.D. students were on-rolls, while a total of 692 Ph.D. students were on-rolls during First Semester 2013-2014.

### Category-wise Distribution of Ph.D. Students

S.No.	CATEGORY	NO. OF Ph.D. STUDENTS ON ROLLS							
		II Sem 2012-2013				I Sem 2013-2014			
		Pilani	Goa	Hyderabad	Dubai	Pilani	Goa	Hyderabad	Dubai
1	Research scholars	168	61	104	5	211	79	141	5
2	Staff	91	29	22	10	82	31	24	10
3	Ph D Aspirants	135	1	0	0	108	1	0	0
<b>TOTAL</b>		<b>394</b>	<b>91</b>	<b>126</b>	<b>15</b>	<b>401</b>	<b>111</b>	<b>165</b>	<b>15</b>
<b>GRAND TOTAL</b>		<b>626</b>				<b>692</b>			

## A.9 COURSES OFFERED

Semester/ Summer Term	Pilani Campus	Goa Campus	Hyderabad Campus	Dubai Campus	Work-Integrated Learning Programmes
II Semester 2012-2013	448	258	259	163	622
I Semester 2013-2014	570	344	403	191	627
Summer Term 2012-2013	8	3	01	32	-



## A.10 DEGREES OFFERED AT DIFFERENT CAMPUSES

### Pilani Campus

A. Integrated First Degree Programmes	B. Higher Degree Programmes
<p><b>B.E. (Hons.)</b>            Chemical            Civil            Electrical &amp; Electronics Engg.            Mechanical            Computer Science            Electronics &amp; Instrumentation            Manufacturing Engineering</p> <p><b>B.Pharm.(Hons.)</b></p> <p><b>M.Sc.(Hons.)</b>            Bio. Sciences            Chemistry            Economics            Mathematics            Physics</p> <p><b>M.Sc.(Tech.)</b>            General Studies</p>	<p><b>M.E.</b>            Chemical            Civil with Specialisation in Structural Engg.            Computer Science            Mechanical            Software Systems            Microelectronics            Embedded Systems            Design Engineering            Biotechnology            Civil with Specialisation in Transportation Engg.            Chemical with Specialisation in Petroleum Engg.            Civil with Specialisation in Infrastructure Engg.            Manufacturing Systems Engg.            Communication Engineering</p> <p><b>M.Pharm.</b>  <b>M.Pharm.</b> (with Specialization in Pharmaceutics)  <b>M.Pharm.</b> (with Specialization in Pharmaceutical Chemistry)</p> <p><b>Master of Business Administration (M.B.A.)</b></p>
<p><b>C. Ph.D.</b></p>	

### K.K. Birla Goa Campus

A. Integrated First Degree Programmes	B. Higher Degree Programmes
<p><b>B.E. (Hons.)</b>            Chemical            Computer Science            Electrical &amp; Electronics Engg.            Electronics &amp; Instrumentation            Mechanical</p> <p><b>M.Sc.(Hons.)</b>            Biological Sciences            Chemistry            Economics            Mathematics            Physics</p>	<p><b>M.E.</b>            Biotechnology            Chemical Engineering            Design Engineering            Embedded Systems            Microelectronics            Software Systems</p>
<p><b>C. Ph.D.</b></p>	

## Hyderabad Campus

<b>A. Integrated First Degree Programmes</b>	<b>B. Higher Degree Programmes</b>
<b>B.E. (Hons.)</b> Chemical Civil Computer Science EEE Electronics & Communication Electronics & Instrumentation Mechanical Manufacturing Engineering <b>B. Pharm. (Hons.)</b> <b>M.Sc.(Hons.)</b> Biological Sciences Chemistry Economics Mathematics Physics	<b>M.E.</b> Biotechnology Civil with specialisation in Structural Engg. Computer Science Computer Science (with specialization in Information Security) Design Engineering Embedded Systems Mechanical with Specialization in Thermal Engg. <b>M.Pharm. (with Specialization in Pharmaceutics)</b> <b>M.Pharm. (with Specialization in Pharmaceutical Chemistry)</b>
<b>C. Ph.D.</b>	

## Dubai Campus

<b>A. Integrated First Degree Programmes</b>	<b>B. Higher Degree Programmes</b>
<b>B.E. (Hons.)</b> Biotechnology Chemical Computer Science Electrical and Electronics Electronics and Communication Electronics and Instrumentation Mechanical	<b>M.E.</b> Biotechnology Design Engineering Microelectronics Software Systems <b>Master of Business Administration (M.B.A.)</b>
<b>C. Ph. D.</b>	

## A.11 PLACEMENT

	Pilani	Goa	Hyderabad	Dubai
Number of companies which conducted campus interviews	156	104	107	58
Number of offers made	902	432	461	104

## A.12 FACULTY DATA

As on January 1, 2014, the number of faculty members of each of the campuses are given below:

Designation	Pilani	Goa	Hyderabad	Dubai	Total
Professors, Senior Professors	40	10	7	10	53
Associate Professors	36	21	8	21	61
Assistant Professors	130	84	86	20	321
Lecturers	81	43	24	10	173
Other (Visiting Faculty, Teaching Assistants etc.)	23	6	9	25	74
<b>Total</b>	<b>310</b>	<b>164</b>	<b>134</b>	<b>86</b>	<b>682</b>

During the year 2013, 81 new faculty (26 in Pilani, 28 in Goa and 27 in Hyderabad) joined. 54 faculty (27 in Pilani, 12 in Goa, 13 in Hyderabad and 2 in Dubai) left the Institute for reasons such as resigned, term expired or retired. Details are given in *Annexure A-6*.

## A.13 PRACTICE SCHOOL STATISTICS

### *Pilani, Goa and Hyderabad Campuses:*

During the calendar year 2013 the Practice School programme was operated at 497 stations, with 12 stations hosting both Practice School-I (PS-I) and Practice School-II (PS-II), accommodating 4355 students and 137 faculty members. Categorization of PS stations is given below:

S.No.	Categories of Organizations	No. of Organization in	
		PS-II & PS for Higher Degree	PS-I
1.	Banks and other Financial Institutions	20( 18)	3( 3)
2.	Design, Development, Consultancy and Software Organization.	203 (219)	26( 24)
3.	National Research Laboratories and other Research centers	36( 42)	26( 28)
4.	Production, Manufacturing and Public Work Units	70( 53)	118(124)
5.	Publishing Houses, News Agencies and Museums	2( 8)	5( 4)
	<b>Total</b>	<b>331(340)</b>	<b>178(183)</b>

In 2013, an integrated practice school allotment for 4355 students was carried out across Pilani, Goa and Hyderabad campuses. The statistical details of the centre-wise distribution of students and faculty at PS-I stations are given in Annexure '7' followed by the details of the Operational Statistics of PS-II and PS for higher degree in Annexure '8'. Growth statistics of PS-I, PS-II and PS for higher degree are given in Annexure '9', while facilities available at various PS-II stations are given in Annexure '10'.

Following is the break up of students who were registered in PS-I, PS-II & PS for Higher Degree:

PS-I	Summer Term 2012-2013	(2036)	2081
PS-II	II Semester 2012-2013	(857)	931
	I Semester 2013-2014	(1118)	1125
PS for Higher Degree			
	II Semester 2012-2013	(230)	216
	I Semester 2013-2014	(72)	02
Total		(4313)	4355

Note: The figures shown in brackets relate to the year 2012.

### Dubai Campus

During the calendar year 2013, the Practice School Programme was operated at 120 stations, with 23 stations hosting both Practice School – I (PS-I) and Practice School – II (PS-II), accommodating 611 students and 52 faculty members. Categorization of PS stations is given below:

S.No.	Category of Organizations	No. of Organizations	
		PS-II	PS-I
1.	Banks & other financial Institutions.	00 (01)	00 (00)
2.	Design, Development, Consultancy and Software Organization.	22 (46)	29 (28)
3	Trading	08 (05)	04 (06)
4	Production, Manufacturing and Maintenance	24 (29)	45 (34)
5	Other	00 (05)	11 (08)
<b>Total</b>		<b>54(81)</b>	<b>89 (76)</b>

With the present annual PS intake of 611 students, the PS programme covers almost entire eligible student population of the Institute. It is worthy to note that the Practice School operation at the Dubai Campus has been conducted successfully since 2002. The statistical details of the distribution of students and faculty at PS-I stations are given in Annexure B4-15 followed by the details of the Statistics of PS-II are given in Annexure B4-16. The Growth statistics of PS-I, PS-II are given in Annexure B4-17, while facilities available at various PS-II stations are given in Annexure B4-18.

Following is the breakup of students who were registered in PS-I, PS-II. (Note: The data pertaining to the calendar year 2012 is given in parenthesis.)

PS-I	Summer Term 2012-2013	(294)	325
PS-II	II Semester 2012-2013	(242)	152
	I Semester 2013-2014	(144)	134
Total		<b>(680)</b>	<b>611</b>



## A.14 WORK INTEGRATED LEARNING PROGRAMMES (WILP)

Since 1979, the Institute has been participating in the human resource development needs of the industries. The Institute has evolved several degree programmes by integrating the working environment of the employees with the learning environment required by the Institute. These programmes were first started as M.E. (Collaborative) programmes in 1979. Later, from 1988, the Institute ventured into Off-campus Work-Integrated Learning Programmes in Science and Technology areas. These programmes:

- (a) are targeted to meet the needs of continuing education of employed professionals;
- (b) are based on Science & Technology approach and operate disciplines that are non-conventional and Science & Technology oriented;
- (c) are designed for the purposeful acquisition of scientific methods, modern skills and involvement in open-ended experiments;
- (d) judiciously combine the flexibility and ingenuity of the off-campus system with all the regular features of the on-campus system; and
- (e) allow the employed professionals to pursue a meaningful and relevant university degree with minimum dislocation from their work environment.

### Salient Features

All programmes offered under the Work-Integrated Learning Programmes are characterized by a person - centered approach where the rigour and standard are maintained as in the institute's on-campus programmes. While a number of on-campus programmes are also available under off-campus, the Institute interacts with various organizations like industries, hospitals and national laboratories with a view to design and offer specialized programmes. Many organizations sponsor their employees for various programmes, in order to prepare their human resources to meet the challenges posed by the growth of industries and rapid advancement of technology in India and abroad.

### DEGREES OFFERED

A. Integrated First Degree Programmes	B. Higher Degree Programmes
<p><b>B.S.</b>                      Engineering Design                      Engineering Technology                      Information Systems                      Manufacturing Engineering                      Marine Engineering                      Nautical Technology                      Optometry                      Physician Assistant                      Power Engineering                      Process Engineering</p>	<p><b>M.S.</b>                      Automotive Engineering                      Consultancy Management                      Design Engineering                      Embedded Systems                      Engineering Management                      Manufacturing Management                      Medical Laboratory Technology                      Microelectronics                      Pharmaceutical Operations &amp; Management                      Project Engineering &amp; Management                      Quality Management                      Science Communication                      Software Engineering                      Software Systems                      Systems Engineering                      Telecommunications &amp; Software Engineering</p> <p><b>M.Phil.</b>                      Hospital &amp; Health Systems Management                      Optometry</p>

## ADMISSIONS

	II Semester 2012-13	I Semester 2013-14
Integrated First Degree Programmes	443(0064)	890(094)
Higher Degree Programmes	5771(2751)	2353(557)
<b>Total</b>	<b>6214(2815)</b>	<b>3243(651)</b>

## NUMBER OF STUDENTS REGISTERED

Semester	Number of students registered
Second Semester 2012-2013	21556
First Semester 2012-2013	22075

## COURSES OFFERED

The number of courses, offered during the year 2013 is as follows:

Semester	Number of Courses offered
Second Semester 2012-2013	622
First Semester 2013-2014	627

## AWARD OF DEGREES

Award	72 <sup>nd</sup>	73 <sup>rd</sup>	Total
Integrated First Degrees	816(70)	358(48)	1174(118)
Higher Degrees	2191(825)	1545(374)	3736(1199)
<b>Total</b>	<b>3007(895)</b>	<b>1903(422)</b>	<b>4910(1317)</b>

## A.15 BITS ALUMNI AFFAIRS DIVISION (BAAD) ACTIVITIES

### BITS Alumni Affairs Division (BAAD) Activities

#### Distinguished Alumnus Awards 2013

BITS Pilani conferred "BITS Pilani Distinguished Alumnus Award 2013" to the following alumni:

- Mr. Ramesh Ramanathan, Founder, Janaagraha Centre for Citizenship and Democracy, Bangalore, India, for Public Life and Social Entrepreneurship;
- Dr. Vijay Chandru, Founder and Chairman, Strand Life Sciences, Bangalore, India, for Entrepreneurship;
- Mr. Pankaj Patel, Executive Vice President and Chief Development Officer, Cisco Systems Inc., San Jose, CA, USA, for Professional management of businesses;
- Prof. S P Kothari, Deputy Dean and Gordon Y Billard Professor of Management, MIT Sloan School of Management, Massachusetts, USA for Academic Teaching and/or Research ; and
- Mr. Rajesh Hukku, Former Chairman and CEO, i-Flex Solutions, CA, USA, for Entrepreneurship.

This is in recognition of their significant and outstanding contributions to Professional management of businesses, entrepreneurship or academic teaching and/or research. The awards were presented during the Convocation 2013 at Pilani, on August 4, 2013.

### **BITS Connect 2.0 launched**

On 9th January 2013, BITS Pilani along with BITSAA, its global alumni association, launched a first of its kind multi-million dollar cross-campus technology initiative named BITS Connect 2.0. Pioneering a unique model of multi-campus education in India, the initiative comprises Immersive Telepresence, High-definition Video conferencing and Live Streaming technologies, that are set to transform the learning experience by connecting all campuses at an unprecedented scale. This University-Alumni initiative was launched simultaneously at Pilani, Goa and Hyderabad campuses, while being connected to Cisco's offices in San Jose and Boston, jointly by Prof B. N. Jain, Vice Chancellor, BITS Pilani and Shri Raju Reddy, Chairman, BITSAA, in the presence of His Excellency the Governor of Goa, Shri Bharat VirWanchoo and Shri J Satyanarayana, Secretary, Department of IT, Government of India.

### **Basket Ball courts gifted by alumnus of 1967 batch**

Two newly built state of the art basket ball courts with 8 layered Latex synthetic flooring system, padded umbrella poles with dunking ring facility, electronic score displays, new lighting system and new pavilions were gifted to the Institute by Mr M. P. Sharma, an alumnus of 1967 batch and Founder of Techmart retail chain which has presence in 16 countries of Middle East and Asia. The new basket ball courts built on the Gymnasium grounds were dedicated by Mr M P Sharma in memory of his loving father on 18 September 2013.

### **BITSians Day**

While BITS celebrates its Golden Jubilee year, BITSAA International had given a call to BITSians across the globe to celebrate what really makes BITS what it is - its alumni. Events across the globe were organized to celebrate the first ever 'BITSians Day' - the day when the world would witness the BITSian pride and what it means to be a BITSian! \_

### **Alumni Affairs Cell, Pilani campus**

During the year, a number of Alumni related events were organized by and that included Silver Jubilee Reunion, Golden Jubilee Reunion, Farewell parties to passing out graduates and visit by a batch that celebrated its 40<sup>th</sup> year of passing out in Pilani. Nine families of 1960 -65 Batch of Alumni visited the campus on 18<sup>th</sup> February 2013. More than 170 Alumni of 1984-88 batch with a total number of more than 220 participants including family members participated in a Silver Jubilee Reunion organized between 18<sup>th</sup> and 20<sup>th</sup> October 2013.

Alumni Cell organized interaction with Prof Autar Kaw, a BITS alumnus (1981 batch) and presently Professor of Mechanical Engineering and Jerome Krivanek Distinguished Teacher at the University of South Florida, US on 9<sup>th</sup> August 2013. An interaction with Dr Vijay Chandru, Distinguished Alumnus Awardee 2013 was organized on 3<sup>rd</sup> August 2013.

Another interaction with Prof Narendra Ahuja, an alumnus of 1972 batch from BITS Pilani and at present, Professor in the Department of Electrical and Computer Engineering at University of Illinois – Urbana Champaign was arranged 20<sup>th</sup> May 2013. Similar interactions with some other prominent Alumni were organized during the year. A series of talks by leading academicians and entrepreneurs were organized under Embryo talks for the benefit of students. More than 20 Alumni were deeply involved in guiding mentoring and taking sessions in the course titled New Venture Creation wherein team of students worked on fine tuning their ideas to take it the next stage of launching or incubation.

### **Allumni Affairs Cell, K.K. Birla Goa Campus**

Alumni Affairs Cell, K.K. Birla Goa Campus organized 7 Embryo lectures by the following prominent people: Dr Tarun Khanna, Dr Kiran Bedi, Srivarsha Rajshekhar, Adwait Gandhe, Mr. Gaurav Tekriwal, Shivakumar Ganeshan, Siddharth Ramesh, Karthikeyan Krishnamurthy, Anupama T V and Rajroshan Sawhney.

## A.16 FINANCE AND FUND SUPPORT

The accounts of the Institute for the financial year 2012-2013 have been audited by M/s. S.R. Batliboi and Co., New Delhi, who are the Statutory Auditors of the Institute. M/S Brij Kishore & Co., Chartered Accountants, Jhunjhunu are the Internal Auditors.

### Finance and Funds during 2012-2013

#### Investments

As on 31 October 2013, the investment in shares & Units of Mutual Funds (out of Corpus fund) stood at Rs. 3668.43 lakhs. The total fixed deposits with banks stood at Rs. 6267.02 lakhs.

#### Expenditure

The excess of expenditure over income as per Income & Expenditure Account was Rs.2.09 lakhs.

#### Pension to Staff

As on 31 October 2013, fifty members of the staff were receiving pension. During the financial year 2012-2013, the Institute spent Rs. 31.13 lakhs on pension.

#### Gratuity to Staff

Institute has paid Rs. 61.36 lacs to 17 staff members who left the institute.

#### Medical Facilities

During the financial year 2012-2013, the Institute spent Rs. 96.98 lakhs net for providing medical facilities to the students and staff of the Institute. The expenditure included contribution to Birla Sarvajanik Hospital, Mahadev Singhi Eye Hospital, medical reimbursement and amount spent on visits of dental surgeon.

#### Financial Assistance to Students

The Institute spent Rs. 350.63 lakhs on scholarships to staff children/spouse/self to cover the fees for education at the Institute and local schools. Further, 1133 students received financial assistance of Rs. 620.27 lakhs from different sources, details of which are given below:

S.No.	Particulars	No. of Students	Amount in Rs.
1.	UGC PG Scholarship	111	5791500
2.	Students Aid Fund	56	411250
3.	Other States Scholarship	45	1862605
4.	Institute Merit Scholarship	102	9310500
5.	Institute Merit-cum-Need Scholarship	819	44650956
<b>Total</b>		<b>1133</b>	<b>62026811</b>

### A. SAP-DRS

UGC has selected four groups of the Institute under Special Assistance Programme (SAP) at the level of Departmental Research Scheme (DRS)

S.No.	Name of Department	Period	Amount Sanctioned (Rs. in Lakhs)	Amount Released (Rs. in Lakhs)
1.	Pharmacy phase II	5 Years	71.50	63.33
2.	Biological Science	5 Years	31.50	27.02
3.	Chemistry	5 Years	35.00	30.05
4.	Mechanical Engineering	5 Years	38.00	36.64
5.	Mathematics	5 Years	51.50	23.70
6.	Physics	5 years	51.50	46.50
7.	Chemical Engineering	5 Years	48.00	38.67
8.	Civil	5 Years	67.30	54.36



S.No.	Name of Department	Period	Amount Sanctioned (Rs. in Lakhs)	Amount Released (Rs. in Lakhs)
9.	Biological Science Phase II	5 Years	70.75	5.65
10.	Chemistry Phase II	5 Years	70.00	0
<b>Total</b>			<b>535.05</b>	<b>325.92</b>

#### B. UGC Infrastructure Development Grant

S.No.	Department	Period in Years	Amount Sanctioned (Rs. in Lakhs)	Amount Released (Rs. in Lakhs)
1.	Mathematics	1 Year	20.00	20.00
2.	Physics	1 Year	20.00	20.00
3.	Civil	1 Year	20.00	20.00
<b>Total</b>			<b>60.00</b>	<b>60.00</b>

#### C. UGC Innovative Program (UGC Master Programme in Public Health)

UGC has granted a project for establishing a Public Health Program under the scheme of UGC Innovative Programmes.

Period	Amount Sanctioned (Rs. in Lakhs)	Amount Released (Rs. in Lakhs)
5 Years	Non Recurring 18.00; Recurring: 11.00 <b>Total: 29.00</b>	<b>22.81</b>

#### D. UGC Funded Centre for Women Studies

UGC has granted a project for establishing a Centre for Women Studies under the scheme of Development of Women's Studies in Indian Universities and Colleges.

Period	Amount Sanctioned (Rs. In Lakhs)	Amount Released (Rs. in Lakhs)
5 Years	Non Recurring 20.00; Recurring: 21.00; Others (3.00 p.a.): 9.00 <b>Total: 50.00</b>	<b>35.08</b>

### Financial Details of Department of Science & Technology Grants:

#### A. DST Funded Technology Business Incubator

DST has granted a project for establishing Technology Business Incubator at BITS, Pilani.

S.No.	Co-coordinator & Name of Group	Period	Amount Sanctioned (Rs. in Lakhs)	Amount Released (Rs. in Lakhs)
1.	Dr. Arya Kumar and Dr. Anu Gupta	6 Years	Non Recurring: 138.35 Recurring: 53.00 for 5 years <b>Total: 191.35</b>	140.32

#### B. Grants under DST- FIST:

S. No.	Department	Period	Amount Sanctioned (Rs. in Lakhs)	Amount Released (Rs. in Lakhs)
1	Physics	5	58.00	18.50
2.	Chemical Engineering	5	80.50	33.75
3.	Civil Engineering	5	80.00	32.00

S. No.	Department	Period	Amount Sanctioned (Rs. in Lakhs)	Amount Released (Rs. in Lakhs)
4.	Pharmacy	5	135.00	62.50
5.	Chemistry	5	87.00	35.5
6.	Computer Science	5	53.00	24.00
7.	Mathematics	5	95.00	0.0
8.	EEE & I	5	138.00	0.0
9.	Mechanical Engineering	5	163.00	0.0
10	Biological Science	5	55.00	0.0
<b>Total</b>			<b>944.50</b>	<b>206.25</b>

### Financial Details of Department of Electronics and Information Technology:

#### TIDE Scheme

S.No.	Co-coordinator & Name of Group	Period	Amount Sanctioned (Rs. in Lakhs)	Amount Released (Rs. in Lakhs)
1.	Dr. Arya Kumar and Dr. Anu Gupta	3 Years	155.00	50.00

### BITS Pilani, Dubai Campus

#### Financial Assistance to Students

549 students received financial assistance of AED 34,07,323/- under different categories for the Academic Year 2012-13, the details of which are given below:

S. No.	Particulars	Students Nos.	Amount (in AED)
1	Institute Merit Scholarship	457	23,33,563
2	Higher Degree and Doctoral Scholarship	45	5,76,010
3	Need-based Scholarship (Physically challenged, Bereaved family discount)	3	35,625
4	Others (Staff, Siblings, Sports, Special Concessions)	44	4,62,125
Total		<b>549</b>	<b>34,07,323</b>

**Note:** The complete annual report (Part A and Part B) along with the annexures is given in separate CD.

## GENERAL BODY

The General Body of the Institute held its 52nd Meeting on 20th March 2013 under the Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute.

The General Body paid homage to its late members Shri S.M. Agarwal and Dr. K. Anji Reddy who expired on 3rd August, 2012 and 15th March, 2013, respectively.

The Chancellor heartily welcomed the members and thanked them for attending the meeting and informed that BITS Pilani continues to be on its path to academic excellence. It will commence its Golden Jubilee celebrations this year and is looking at future with renewed confidence.

He envisioned that BITS launched project Vision 2020 and Mission 2012 in 2009. Mission 2012 was concluded in Nov 2012. Significant progress has been made in several areas including Curricula re-design; Promotion of academic and sponsored research; and Faculty induction and appraisal. Some areas of Mission 2012 will continue to be our priorities including WILP, Placements and Renovation and expansion of physical infrastructure. He mentioned that having brought Mission 2012 to a successful close, we have now identified 7 key imperatives for Mission 2015 that must be taken up in the coming months so that BITS' vision may be realized. These include (a) quality assurance and assessment, (b) industry engagement, (c) internationalization, (d) innovation and entrepreneurship, (e) faculty and staff development, (f) inter-disciplinary research and (g) technology enablement.

The Chancellor also mentioned that in March 2012, an agreement was signed with ETA group in Dubai for BITS (a) to take charge of the assets of BITS' Dubai campus and (b) to assume full responsibility as an infrastructure provider (in addition to BITS' role as the academic provider). The transaction has been successfully concluded on Feb 14, 2013.

He appraised the members that while the number of students seeking to take BITSAT has remained steady during 2010 to 2012 at around 130,000, and in the year 2013, 166,000 students are expected to take BITSAT test for admissions to our First degree programmes and the number of BITSAT centers will increase to over 35, from 20 in 2010.

Besides it, he told that 85% to 90% of our students in the 3 Indian campuses were placed through campus interviews in earlier years, given the general state of industry and drop in hiring across the board, nearly 80% have been placed till March 2013. While this remains a major concern for all of us, we are taking several initiatives to improve on campus placements.

On Research, innovation and entrepreneurship, the Chancellor appraised that as a result of measures adopted earlier, the number of full-time students registered in our PhD programmes has increased from 464 at the end of academic year 2010-11 to 628 in 2012-13. The number of those admitted has also increased significantly in the last few years (from 74 in academic year 2010-11 to 142 in 2012-13).

As a result of initiatives undertaken to encourage faculty to seek and execute research grants, the volume of R&D funding has increased from Rs. 6.27 Cr (in FY 2010-11) to Rs. 19.14 (in Apr 2012 to Feb 2013).

BITS proposes to start a virtual "Centre of Research Excellence in Water, Waste and Energy Management" cutting across its three campuses in India. This will recognize the importance of research that cuts across disciplines and will help the faculty across its four campuses to collaborate. This area of water, waste and energy addresses three national priorities.

The Chancellor mentioned that in last 18 months, 3 rounds of faculty selections have been completed. As a result, 198 offers (from a pool that exceeds 10,000 applicants) have been made. Of those offered, 80% had a PhD, 21% obtained their PhD abroad, and 47% obtained their PhD from IIT/IISc/IIM/IICT etc., and 32% had post-doctoral experience abroad. Of those offered, 133 have joined, while 35 are expected to join soon.

He told that the Project "Parivartan", launched in late 2011, to modernize and expand the physical infrastructure in Pilani is likely to complete in FY 2016-17. Phase 1 of the project, consisting of a new academic building, a new hostel of capacity 200 rooms, a workshop, and faculty housing for 120+ faculty, will be completed by Dec 2013. Phase 2, consisting of renovating every hostel, faculty house and all academic spaces, will start shortly.

The Chancellor informed that in the past year Institute has begun operating Work Integrated Learning Programmes (WILP) with eight new industry partners. There is an increase in the number of students admitted this year. In order to understand from industries their need for continuing technical education and to

help expand the reach of the programmes, we have conducted a series of three HR conclaves jointly with the leading business daily, MINT.

He also informed that BITS-Connect 2.0, involved the implementation of TelePresence network across the 3 Indian campuses. This provides high quality audio/video conferencing across desk-tops, conference rooms and classrooms spread across these campuses. It allows us to simultaneously conduct classes for 14 courses across these campuses, frequent cross-campus meetings, and for effective collaboration between faculty, staff and students on a real-time basis. The project has received significant inputs, both intellectual and financial (US\$ 600,000) from alumni.

He appraised the members that the year under Review, 2012-13 was another eventful year for BITS, Pilani with high income and less expenses. However, to fund our expansion in all the campuses, we would take additional term loans of Rs. 150 Cr in year 2013-14. Loan repayment due in 2013-14 is Rs. 36 Cr. It is envisaged that we would also liquidate Mutual Funds of Rs. 42 Cr (current market value). Debt at the end of year is estimated at Rs. 195 Cr. The cash position at the end of the year, after meeting our CAPEX commitments, will be at Rs. 54.4 crores.

Members unanimously appreciated the same.

Later, Prof. Bijendra Nath Jain, Vice-Chancellor of the Institute also apprised members of the other initiatives being taken by the Institute.

1. He told that going forward, we have decided to explore and experiment with technology-enabled online delivery of courses with a view to (a) enhance quality of courses delivered under our on-campus and off-campus programmes, and (b) reach out to industry professionals and teachers in colleges and polytechnics. Such experience will allow us to offer short term (non-degree) programmes to working professionals across India and elsewhere. We expect to make significant investments to create the required platform and course content. This programme will have participation of faculty from Dubai campus as well.
2. He also informed that Institute has proposed to establish 75 OPERA awards to recognize new faculty who have "Outstanding Potential for Excellence in Research and Academics", and to attract and retain them. It is expected that another 75 to 100 such awards will be established in the coming 3 years using funds from alumni and well-wishers.

The General Body noted the actions of the Chancellor approving the following:

- (a) Incorporation of some necessary changes in revenue expenditure in the Budget Estimates 2012-2013.
- (b) Resolution for formation of Company limited by guarantee under Section 25 of the Companies Act, 1956 and authorization of officials as signatories.
- (c) Resolution for establishment of "BITS Pilani FZ-LLC" for acquiring the entire share capital of BITS, Pilani ETA-Network of Educational Training, Dubai and authorization of officials as lawful attorneys.
- (d) Donation of AED 25 Million (or up to Rs. 40 crores) to Birla Institute of Technology and Science Company.

The General Body received and recorded the report on the Research Activities of the Institute and collaboration with various Institutions/organizations both within India and abroad.

The General Body adopted the Report of the Board of Governors as to the state and condition of the Institute for the period from 1<sup>st</sup> January 2012 to 31<sup>st</sup> December 2012. While adopting the report, the members of the General Body expressed their happiness and satisfaction over the functioning of the Institute. The General Body also adopted the Balance Sheet and Income & Expenditure Account for the year ended on 31<sup>st</sup> March 2012 and approved the Budget Estimates of the Institute for the financial year 2013-2014 as recommended by the Finance Committee and Board of Governors.

The General Body authorized the Chancellor to nominate Alumni Term Members for a term of four years in consultation with the Vice-Chancellor.

The General Body unanimously reelected Dr. Kumar Mangalam Birla as Chancellor of the Institute for another term of five years with effect from 14<sup>th</sup> September 2013. *The members congratulated Dr. Kumar Mangalam Birla on his unanimous election. They were appreciative that under his dynamic leadership, the Institute is progressing in all directions and wished that under his continued leadership, the Institute will further grow, excel and reach greater heights. The members also assured him hole-hearted cooperation and support.*

The General Body also unanimously reappointed Smt. Shobhana Bhartia as Pro-Chancellor of the Institute for another term of five years with effect from 14<sup>th</sup> September 2013.

## BOARD OF GOVERNORS

The Board of Governors of the Institute held its 66<sup>th</sup> Meeting on 20th March 2013 under the Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute.

The Chancellor heartily welcomed the members and thanked them for attending the meeting and informed that BITS Pilani continues to be on its path to academic excellence. It will commence its Golden Jubilee celebrations this year and is looking at future with renewed confidence.

He envisioned that BITS launched project Vision 2020 and Mission 2012 in 2009. Mission 2012 was concluded in Nov 2012. Significant progress has been made in several areas including Curricula re-design; Promotion of academic and sponsored research; and Faculty induction and appraisal. Some areas of Mission 2012 will continue to be our priorities including WILP, Placements and Renovation and expansion of physical infrastructure. He mentioned that having brought Mission 2012 to a successful close, we have now identified 7 key imperatives for Mission 2015 that must be taken up in the coming months so that BITS' vision may be realized. These include (a) quality assurance and assessment, (b) industry engagement, (c) internationalization, (d) innovation and entrepreneurship, (e) faculty and staff development, (f) inter-disciplinary research and (g) technology enablement.

The Chancellor also mentioned that in March 2012, an agreement was signed with ETA group in Dubai for BITS (a) to take charge of the assets of BITS' Dubai campus and (b) to assume full responsibility as an infrastructure provider (in addition to BITS' role as the academic provider). The transaction has been successfully concluded on Feb 14, 2013.

He appraised the members that while the number of students seeking to take BITSAT has remained steady during 2010 to 2012 at around 130,000, and in the year 2013, 166,000 students are expected to take BITSAT test for admissions to our First degree programmes and the number of BITSAT centers will increase to over 35, from 20 in 2010.

Besides it, he told that 85% to 90% of our students in the 3 Indian campuses were placed through campus interviews in earlier years, given the general state of industry and drop in hiring across the board, nearly 80% have been placed till March 2013. While this remains a major concern for all of us, we are taking several initiatives to improve on campus placements.

On Research, innovation and entrepreneurship, the Chancellor appraised that as a result of measures adopted earlier, the number of full-time students registered in our PhD programmes has increased from 464 at the end of academic year 2010-11 to 628 in 2012-13. The number of those admitted has also increased significantly in the last few years (from 74 in academic year 2010-11 to 142 in 2012-13).

As a result of initiatives undertaken to encourage faculty to seek and execute research grants, the volume of R&D funding has increased from Rs. 6.27 Cr (in FY 2010-11) to Rs. 19.14 (in Apr 2012 to Feb 2013).

BITS proposes to start a virtual "Centre of Research Excellence in Water, Waste and Energy Management" cutting across its three campuses in India. This will recognize the importance of research that cuts across disciplines and will help the faculty across its four campuses to collaborate. This area of water, waste and energy addresses three national priorities.

The Chancellor mentioned that in last 18 months, 3 rounds of faculty selections have been completed. As a result, 198 offers (from a pool that exceeds 10,000 applicants) have been made. Of those offered, 80% had a PhD, 21% obtained their PhD abroad, and 47% obtained their PhD from IIT/IISc/IIM/IICT etc., and 32% had post-doctoral experience abroad. Of those offered, 133 have joined, while 35 are expected to join soon.

He told that the Project "Parivartan", launched in late 2011, to modernize and expand the physical infrastructure in Pilani is likely to complete in FY 2016-17. Phase 1 of the project, consisting of a new academic building, a new hostel of capacity 200 rooms, a workshop, and faculty housing for 120+ faculty, will be completed by Dec 2013. Phase 2, consisting of renovating every hostel, faculty house and all academic spaces, will start shortly.

The Chancellor informed that in the past year Institute has begun operating Work Integrated Learning Programmes (WILP) with eight new industry partners. There is an increase in the number of students admitted this year. In order to understand from industries their need for continuing technical education and to

help expand the reach of the programmes, we have conducted a series of three HR conclaves jointly with the leading business daily, MINT.

He also informed that BITS-Connect 2.0, involved the implementation of TelePresence network across the 3 Indian campuses. This provides high quality audio/video conferencing across desk-tops, conference rooms and classrooms spread across these campuses. It allows us to simultaneously conduct classes for 14 courses across these campuses, frequent cross-campus meetings, and for effective collaboration between faculty, staff and students on a real-time basis. The project has received significant inputs, both intellectual and financial (US\$ 600,000) from alumni.

He apprised the members that the year under Review, 2012-13 was another eventful year for BITS, Pilani with high income and less expenses. However, to fund our expansion in all the campuses, we would take additional term loans of Rs. 150 Cr in year 2013-14. Loan repayment due in 2013-14 is Rs. 36 Cr. It is envisaged that we would also liquidate Mutual Funds of Rs. 42 Cr (current market value). Debt at the end of year is estimated at Rs. 195 Cr. The cash position at the end of the year, after meeting our CAPEX commitments, will be at Rs. 54.4 crores.

Members unanimously appreciated the same.

Later, Prof. Bijendra Nath Jain, Vice-Chancellor of the Institute also apprised members of the other initiatives being taken by the Institute.

1. He told that going forward, we have decided to explore and experiment with technology-enabled online delivery of courses with a view to (a) enhance quality of courses delivered under our on-campus and off-campus programmes, and (b) reach out to industry professionals and teachers in colleges and polytechnics. Such experience will allow us to offer short term (non-degree) programmes to working professionals across India and elsewhere. We expect to make significant investments to create the required platform and course content. This programme will have participation of faculty from Dubai campus as well.
2. He also informed that Institute has proposed to establish 75 OPERA awards to recognize new faculty who have "Outstanding Potential for Excellence in Research and Academics", and to attract and retain them. It is expected that another 75 to 100 such awards will be established in the coming 3 years using funds from alumni and well-wishers.

The Board of Governors noted the actions of the Chancellor approving the following:

1. Resolution for surety bond or a guarantee up to a value of Rs. 5,00,00,000/- (Rupees Five Crores only) as a surety or guarantee towards funds received from a Department or an agency of the Government of India in support of research, development, etc. to be undertaken at the Institute or any of its campuses.
2. Resolution for opening of a separate Savings Bank Account with State Bank of Hyderabad, Hyderabad for project grants.
3. Incorporation of some necessary changes in revenue expenditure in the Budget Estimates 2012-2013.
4. Resolution for opening of a Bank Account with HDFC Bank Limited at Jhunjhunu for honour cheques, promisory notes, and other instruments drawn by and all bills accepted on behalf of the Institute etc.
5. Resolution for formation of Company limited by guarantee under Section 25 of the Companies Act, 1956 and authorization of officials as signatories.
6. Resolution for establishment of "BITS Pilani FZ-LLC" for acquiring the entire share capital of BITS, Pilani ETA-Network of Educational Training, Dubai and authorization of officials as lawful attorneys.
7. Donation of AED 25 Million (or up to Rs. 40 crores) to Birla Institute of Technology and Science Company.
8. Constitution of Faculty Review Committee consisting of the following members to finalize the recommendations of the faculty review and submit the proposal to the Chancellor for approval.
  1. Shri Hemant Kumar, Member, BoG
  2. Shri Kris Ramachandran, Member, BoG
  3. Prof. Bijendra Nath Jain, Vice-Chancellor and Member, BoG

The Directors of all campuses (Pilani, Goa, Hyderabad and Dubai) will be invited to provide their inputs.

9. Recommendations of the Review Committee for faculty members of the Institute.
10. Recommendations of the Review Committee for non-teaching staff members of the Institute.
11. New terms, conditions and benefits for fixed-term, non-tenured faculty.
12. OPERA (Outstanding Potential for Excellence in Research and Academics) awards for new faculty.
13. Proposal to reduce tuition fee paid by PhD students and to increase the stipend paid to them

The Board received and recorded the reports on Research Activities of the Institute and collaboration with various Institutions/organisations both within India and abroad.

The Board adopted the Report of the Board of Governors as to the state and condition of the Institute for the period from 1<sup>st</sup> January 2012 to 31<sup>st</sup> December 2012 and resolved to recommend the same to the General Body for adoption. While adopting the report the members expressed their happiness and satisfaction over the functioning of the Institute. The Board of Governors also approved the Balance Sheet and Income & Expenditure Account for the year ended on 31<sup>st</sup> March 2012 and recommended the same to the General Body for adoption. The Board also recommended to the General Body the Budget Estimates of the Institute for the financial year 2013-2014 for its approval.

The Board, through its Circulatory Resolution dated 19th July, 2012 approved the conferment of 4999 degrees (71st Award) on the students who have graduated since last meeting of the Board and also approved 3345 Degrees (72nd Award) on the students who have graduated since the Circulatory Resolution of 19th July, 2012 and 15 medals to eligible students for the academic year 2011-12 who graduated since 65<sup>th</sup> Meeting of the Board of Governors.



### DETAILS OF ADMISSIONS MADE DURING THE YEAR 2013

**(A) On-Campus Programmes:**

**Second Semester 2012-2013**

**BITS Pilani, Dubai Campus**

PROGRAMMES	No. of students joined
<b>1. Integrated First Degree Programmes:</b>	
B.E. (Hons.)	
Electronics and Communication Engineering	1 (01)
<b>2. Higher Degree Programmes:</b>	
M.E.	
Microelectronics	17 (08)
Design Engineering	06 (00)
Software Systems	11 (02)
Biotechnology	03 (02)
M.B.A	05 (01)
<b>Total</b>	<b>43(14)</b>

**3. Doctoral Programmes (Ph.D.):**

<b>BITS Pilani, Pilani Campus</b>	38(14)
<b>BITS Pilani, K.K. Birla Goa Campus</b>	8(03)
<b>BITS Pilani, Hyderabad Campus</b>	20(07)
<b>BITS Pilani, Dubai Campus</b>	2(01)
<b>Total</b>	<b>68(25)</b>

**First Semester 2013-2014**

PROGRAMMES	No. of students joined	BITSAT Cut-off scores	
		Highest	Lowest

**1. Integrated First Degree Programmes**

**(a) Pilani Campus**

Group A

B.E.(Hons.)

Chemical	67(9)	336	309
Civil	63(7)	336	308
Computer Science	130(14)	418	354

PROGRAMMES	No. of students joined	BITSAT Cut-off scores	
		Highest	Lowest
EEE	95(14)	402	343
Electronics & Instrumentation	65(12)	351	332
Mechanical	85 (2)	388	337
Manufacturing	36(6)	331	300
B. Pharm. (Hons.)	17(0)	288	266
	<b>558(64)</b>		
<u>Group B</u>			
M.Sc.(Hons.)			
Biological Sciences	51(12)	340	284
Chemistry	49(6)	311	295
Economics	66(12)	341	308
Mathematics	56(13)	331	304
Physics	50(11)	341	303
	<b>272(54)</b>		
<u>Group C</u>			
M.Sc.(Tech.)			
Gen. Studies	16(4)		
	<b>16(4)</b>		
Total :	<b>846(122)</b>		

**(b) K.K. Birla Goa Campus:**

<u>Group A</u>			
B.E.(Hons.)			
Chemical	69( 11)	328	279
Computer Science	86(8)	351	323
Electrical & Electronics	86(13)	350	305
Electronics & Instrumentation	84(16)	330	291
Mechanical	80(2)	343	300
	<b>405(50)</b>		
<u>Group B</u>			
M.Sc.(Hons.)			
Biological Sciences	31(5)	281	268
Chemistry	38(8)	282	273
Economics	48(4)	314	282
Mathematics	44(4)	319	279
Physics	38(3)	327	279
	<b>199(24)</b>		
Total :	<b>604(74)</b>		

**(c) Hyderabad Campus:**

Group A

B.E.(Hons.)

Chemical	49(9)	303	280
Civil	47(4)	307	290
Computer Science	116(15)	358	316
EEE	78(21)	335	300
Electronics & Communication	81(19)	345	308
Electronics and Instrumentation	40(8)	330	295
Mechanical	65(7)	359	299
Manufacturing	40(5)	295	277
B. Pharm. (Hons.)	3(1)	275	272
	<b>519(89)</b>		

Group B

M.Sc.(Hons.)

Biological Sciences	30(9)	282	266
Chemistry	29(14)	283	272
Economics	41(9)	306	282
Mathematics	45(13)	302	276
Physics	34(05)	330	276
	<b>179(50)</b>		
<b>Total :</b>	<b>698(139)</b>		

Note: (i) The above list consists of 20 students who are First rank holders from 19 different central/ state boards admitted under 'direct admission of board toppers' scheme.

(ii) The above numbers also include 35 admissions of staff children and of BET school students, made under special dispensation consisting of 3 in Bio Sciences, 2 in Chemistry, 6 in Economics, 5 in Mathematics, 3 in Physics and 16 in General Studies.

**(d) Dubai Campus:**

B.E.(Hons.)

Biotechnology	14 (12)
Chemical Engineering	25 (13)
Electrical and Electronics Engineering	47 (19)
Mechanical Engineering	106 (05)
Electronics and Instrumentation Engineering	13 (02)
Computer Science	108 (34)
Electronics and Communication Engineering	65 (29)
<b>Total</b>	<b>378(114)</b>

## 2. Higher Degree Programmes :

### (a) Pilani Campus

M.E.	
Biotechnology	16(9)
Chemical Engineering	13(3)
Chemical (Petroleum Engineering)	7(2)
Civil (Structural Engineering)	14(4)
Civil (Transportation Engineering)	11(4)
Civil (Infrastructure Engineering)	11(4)
Computer Science	20(3)
Communication Engineering	16(2)
Design Engineering	9
Embedded Systems	7(2)
Manufacturing Systems Engineering	9(1)
Mechanical Engineering	11
Microelectronics	12(4)
Software Systems	29(5)
MBA	9(3)
M.Pharm.	15(7)
M.Pharm. (Pharmaceutics)	6(2)
M.Pharm. (Pharmaceutical Chemistry)	50(19)
<b>Total</b>	<b>265(74)</b>

### (b) Goa Campus

M.E.	
Biotechnology	7(5)
Chemical Engineering	9(5)
Design Engineering	10(1)
Microelectronics	11(2)
Embedded Systems	13(2)
Software Systems	8(1)
<b>Total</b>	<b>58(16)</b>

### (c) Hyderabad Campus

M.E.	
Biotechnology	9(7)
Computer Science	5(1)
Civil (Structural)	10(1)
Embedded Systems	8(3)
Thermal	12(1)
Design	7
M.Pharm (Pharmaceutical Chemistry)	8(3)
M.Pharm. (Pharmaceutics)	2
<b>Total</b>	<b>61(16)</b>
Higher Degree (3 year Integrated) Programme	10(1)
<b>Total</b>	<b>10(1)</b>

### 3. Doctoral Programmes (Ph.D.):

(a) Pilani Campus	43(19)
(b) K.K. Birla Goa Campus	24(13)
(c) Hyderabad Campus	35(09)
(d) Dubai Campus	7(06)
<b>Total</b>	<b>109(47)</b>

### (B) Work-Integrated Learning Programmes:

#### Second Semester 2012-2013

<b>PROGRAMMES</b>	<b>No. of students joined</b>	
1. Integrated First Degree Programmes:		
B.S.		
Engineering Technology	139(02)	
Information Systems	174(62)	
Manufacturing Engineering	28(00)	
Power Engineering	31(00)	
Process Engineering	71(00)	
		<u>443(0064)</u>
2. Higher Degree Programme:		
M.S.		
Design Engineering	44(0010)	
Embedded Systems	38(0010)	
Engineering Management	43(0000)	
Manufacturing Management	177(0005)	
Microelectronics	105(0028)	
Pharmaceutical Operations and Management	37(0000)	
Project Engineering & Management	20(0002)	
Science Communication	15(0004)	
Software Engineering	4651(2514)	
Software Systems	548(0142)	
Systems Engineering	40(0013)	
Telecommunications and Software Engineering	53(0020)	
		<u>5771(2751)</u>
	<b>Total</b>	<u>6214(2815)</u>

**First Semester 2013-2014**

<b>PROGRAMMES</b>	<b>No. of students joined</b>	
1. Integrated First Degree Programmes:		
B.S.		
Engineering Technology	275(04)	
Information Systems	29(01)	
Manufacturing Engineering	79(02)	
Marine Engineering	250(01)	
Nautical Technology	79(00)	
Optometry	104(70)	
Physician Assistant	24(21)	
Process Engineering	88(04)	
		<u>928(103)</u>
2. Higher Degree Programmes:		
M.S.		
Automotive Engineering	33(001)	
Consultancy Management	122(017)	
Engineering Management	20(006)	
Manufacturing Management	419(024)	
Microelectronics	39(006)	
Quality Management	168(032)	
Software Engineering	417(127)	
Software Systems	1033(300)	
Telecommunications & Software Engineering	51(020)	
M.Phil.		
Hospital and Health Systems Management	44(19)	
Optometry	7(05)	
		<u>2353(557)</u>
	<b>Total</b>	<u><b>3281(660)</b></u>

## SUMMARY

		II Semester 2012-2013	I Semester 2013-2014
1.	<b>BITS, Pilani – Pilani Campus</b>		
	Integrated First Degree Programmes	-	846(122)
	Higher Degree Programmes	-	265( 74)
	Doctoral Programmes	38(14)	43( 19)
	<b>Total</b>	<b>38(14)</b>	<b>1154(215)</b>
2.	<b>BITS, Pilani – K.K. Birla Goa Campus</b>		
	Integrated First Degree Programmes	-	604(74)
	Higher Degree Programmes	-	58(16)
	Doctoral Programmes	8(3)	24(13)
	<b>Total</b>	<b>8(3)</b>	<b>686(103)</b>
3.	<b>BITS, Pilani – Hyderabad Campus</b>		
	Integrated First Degree Programmes	-	698(139)
	Higher Degree Programmes	-	61( 16)
	Higher Degree (3 year Integrated Programmes)	-	10( 01)
	Doctoral Programmes	20(07)	35(09)
	<b>Total</b>	<b>20(07)</b>	<b>804(165)</b>
4.	<b>BITS, Pilani – Dubai Campus</b>		
	Integrated First Degree Programmes	1(01)	378(114)
	Higher Degree Programmes	42(13)	-
	Doctoral Programmes	2(01)	7( 06)
	<b>Total</b>	<b>45(15)</b>	<b>385(120)</b>
5.	<b>Work-Integrated Learning Programmes</b>		
	Integrated First Degree Programmes	443(0064)	928(103)
	Higher Degree Programmes	5771(2751)	2353(557)
	<b>Total</b>	<b>6214(2815)</b>	<b>3281(660)</b>
	<b>GRAND TOTAL</b>	<b>6325(2854)</b>	<b>6310(1263)</b>



### ADMISSIONS: QUALITY OF STUDENTS' INPUT

Year of Admission	Percentage of marks in Qualifying Subjects (General PCM)	
	Max.	Min.
1966-67	93.7	38.2
1967-68	91.2	52.0
1968-69	95.0	47.3
1969-70	92.7	51.6
1970-71	96.7	45.0
1971-72	92.3	56.2

Year of Admission	Semester	Normalised aggregate percentage	
		Highest	Lowest
1972-73	I Sem.	94.30	65.22
	II Sem.	88.16	65.22
1973-74	I Sem.	100.00	70.97
	II Sem.	94.41	70.97
1974-75	I Sem.	97.83	73.00
	II Sem.	97.83	80.11
1975-76	I Sem.	97.00	78.61
	II Sem.	96.14	79.76
1976-77	I Sem.	99.73	78.50
	II Sem.	92.30	69.63
1977-78	I Sem.	100.00	79.11
	II Sem.	97.19	82.84
1978-79	I Sem.	100.00	60.00
	II Sem.	98.05	79.67
1979-80	I Sem.	100.00	69.46
	II Sem.	99.87	84.24
1980-81	I Sem.	100.00	78.72
	II Sem.	(No admissions made)	
1981-82	I Sem.	100.00	81.10
	II Sem.	97.15	86.30
1982-83	I Sem.	100.00	84.13
	II Sem.	100.00	86.64
1983-84	I Sem.	100.00	84.68
	II Sem.	99.22	85.35
1984-85	I Sem.	99.89	85.60
	II Sem.	96.67	85.60
1985-86	I Sem.	100.00	85.05
	II Sem.	99.04	85.56

Year of Admission	Semester	Normalised aggregate percentage	
		Highest	Lowest
1986-87	I Sem.	100.00	88.63
	II Sem.	97.61	88.63
1987-88	I Sem.	100.00	88.11
	II Sem.	97.81	88.37
1988-89	I Sem.	100.00	88.86
	II Sem.	100.00	92.63
1989-90	I Sem.	100.00	89.03
	II Sem.	98.96	89.03
1990-91	I Sem.	100.00	90.90
	II Sem.	100.00	93.87
1991-92	I Sem.	100.00	90.96
	II Sem.	100.00	96.11
1992-93	I Sem.	100.00	93.81
	II Sem.	100.00	94.71
1993-94	I Sem.	100.00	93.91
	II Sem.	100.00	95.02
1994-95	I Sem.	100.00	94.53
	II Sem.	99.52	94.99
1995-96	I Sem.	100.00	94.70
	II Sem.	98.66	96.07
1996-97	I Sem.	100.00	95.27
	II Sem.	97.87	95.30
1997-98	I Sem.	100.00	95.31
	II Sem.	99.52	95.32
1998-99	I Sem.	100.00	95.10
	II Sem.	100.00	95.31
1999-2000	I Sem.	100.00	96.09
	II Sem.	98.89	96.70
2000-01	I Sem.	100.00	96.11
	II Sem.	99.79	96.11
2001-02	I Sem.	100.00	97.15
	II Sem.	100.00	97.44
2002-03	I Sem.	100.00	98.069
	II Sem.	100.00	98.069
2003-04	I Sem.	100.00	98.374
	II Sem.	100.00	98.374
2004-05	I Sem.	100.00	97.323
	II Sem.	99.673	97.323

Year of Admission	Semester	BITSAT Test Score	
		Highest	Lowest
2005-06	I Sem.	434	245
	II Sem.	366	267
2006-07	I Sem.	430	283
	II Sem.	300	283
2007-08	I Sem.	411	260
	II Sem.	386	251
2008-09	I Sem.	419	230
2009-10	I Sem.	422	255
	II Sem.	304	251
2010-11	I Sem.	398	258
2011-12	I Sem.	414	211
2012-13	I Sem.	414	258
2013-14	I Sem.	418	266

**STATEMENT SHOWING THE NUMBER OF CANDIDATES WHO HAVE BEEN PERMITTED IN THE ACADEMIC YEAR 2013-2014 TO PURSUE VARIOUS DUAL DEGREE PROGRAMMES UNDER VARIOUS PRIORITIES**

(i) **Pilani Campus:**

**FIRST PRIORITY**

(From Group 'B' to Group 'A' Programmes)

Programmes* From ↓ To →	A1	A2	A3	A4	A5	A7	A8	AB	Total
B1	7	7	6	9	-	9	8	3	49
B2	7	4	5	9	-	8	5	2	40
B3	5	3	10	8	-	11	5	3	45
B4	3	2	8	8	-	11	7	2	41
B5	8	4	10	5	-	4	5	5	41
<b>Total</b>	30	20	40	39	-	43	30	15	216

**OTHER PRIORITIES**

Programmes* From ↓ To →	AB	B1	B3	B4	Total
A3		01			01
A5	01				01
C6				01	01
C7			01		01
<b>Total</b>	01	01	01	01	04

(ii) **K.K. Birla Goa Campus:**

**FIRST PRIORITY**

(From Group 'B' to Group 'A' Programmes)

Programmes* From ↓ To →	A1	A3	A4	A7	A8	Total
B1	8	9	6	7	4	34
B2	6	8	7	6	5	32
B3	5	8	3	8	10	34
B4	1	6	12	9	7	35
B5	3	4	7	5	9	28
Total	23	35	35	35	35	163

**OTHER PRIORITIES**

Programmes* From ↓ To →	A3	A7	B1	B4	B5	Total
A3					01	01
A4	01	01	01		01	04
A7				01		01
B5				01		01
Total	01	01	01	02	02	07

(iii) **Hyderabad Campus:**

**FIRST PRIORITY**

(From Group 'B' to Group 'A' Programmes)

Programmes* From ↓ To →	A1	A2	A3	A4	A7	A8	AA	AB	Total
B1	01	02	04	02	06	02	06	03	26
B2	07	01	04	02	06	01	04	02	27
B3	05	03	08	04	06	02	04	03	35
B4	-	04	04	06	07	04	07	03	35
B5	01	-	05	05	04	04	05	02	26
Total	14	10	25	19	29	13	26	13	149

### OTHER PRIORITIES

Programmes* From ↓ To →	A4	AA	B1	B3	B5	Total
A3				01	01	02
A7	01					01
A8		01				01
AB	01					01
B2			01			01
Total	02	01	01	01	01	06

**(iv) Dubai Campus:**

Programmes* From ↓ To →	A9	A1	TOTAL
A1	1	-	1
A4	-	1	1
TOTAL	1	1	2

**\*Legend :**

- A1 B.E. (Hons.) Chemical
- A2 B.E. (Hons.) Civil
- A3 B.E. (Hons.) Electrical & Electronics
- A4 B.E. (Hons.) Mechanical
- A5 B.Pharm. (Hons.)
- A7 B.E. (Hons.) Computer Science
- A8 B.E. (Hons.) Electronics and Instrumentation
- A9 B.E. (Hons.) Biotechnology
- AA B.E. (Hons.) Electronics & Communication
- AB B.E. (Hons.) Manufacturing Engineering
- B1 M.Sc. (Hons.) Biological Sciences
- B2 M.Sc. (Hons.) Chemistry
- B3 M.Sc. (Hons.) Economics
- B4 M.Sc. (Hons.) Mathematics
- B5 M.Sc. (Hons.) Physics
- C2 M.Sc. (Tech.) General Studies
- C5 M.Sc. (Tech.) Engineering Technology
- C6 M.Sc. (Tech.) Information Systems
- C7 M.Sc. (Tech.) Finance

## FACULTY DATA

### **Pilani Campus**

List of Faculty members who joined between 01-01-2013 to 31-12-2013.

S.No.	Name of Faculty	Desig.	Discipline	Date of Joining
1.	Dr. Paul Atish Tulshiram	ASTP	PHAR	16.01.2013
2.	Dr. Kapil	ASTP	CSIS	08.02.2013
3.	Mr. Aquil Mirza Mohammed	LECT	EEE	15.02.2013
4.	Dr. Sundaresan Raman	ASTP	CSIS	14.03.2013
5.	Dr. Murali Palla	ASTP	ME	01.04.2013
6.	Dr. Shibani Khanra Jha	ASTP	CE	25.04.2013
7.	Dr. Amit Goel	ASTP	CE	21.06.2013
8.	Dr. S. K. Hafizul Islam	ASTP	CSIS	21.06.2013
9.	Dr. Arun Kumar	ASTP	MGTS	25.06.2013
10.	Dr. Anubha Dadhich	ASTP	MGTS	27.06.2013
11.	Dr. Suresh Kumar	ASTP	MATH	01.07.2013
12.	Dr. Sandhya Amol Marathe	ASTP (Contract)	BIO	17.07.2013
13.	Dr. Sudeshna Mukherjee	ASTP (Contract)	BIO	17.07.2013
14.	Dr.(Ms.) Sanchita Bandyopadhyay Ghosh	ASTP (Contract)	ME	18.07.2013
15.	Dr. Benu Gopal Saha	VFAC	CHEM	18.07.2013
16.	Dr. Udayan Chanda	ASTP	MGTS	19.07.2013
17.	Dr. Praveen Goyal	VFAC	MGTS	25.07.2013
18.	Dr. Mangal Roy	ASTP	ME	30.07.2013
19.	Dr. Rikmantra Basu	VFAC	EEE	03.08.2013
20.	Dr. Bibhas Ranjan Sarkar	ASTP	CHEM	12.08.2013
21.	Dr. Praveen Kumar A. V.	ASTP	EEE	02.09.2013
22.	Mr. Kavindra Kandpal	LECT	EEE	07.09.2013
23.	Dr. (Ms) Sonal Mazumder	ASTP	CHEG	17.10.2013
24.	Dr. Srinivas Kota	ASTP	ME	18.10.2013
25.	Dr. Karumbaiah Chappanda Nanaiah	ASTP	EEE	31.10.2013
26.	Dr. (Ms.) Somdatta Bhattacharya	ASTP	HUSS	16.12.2013

List of Faculty members who Left the Institute between 01-01-2013 to 31-12-2013

S.No.	Name of Faculty	Desig.	Date of Leaving	Reason
1.	Shri Kalluri Vinayak	LECT	29.03.2013	Resigned
2.	Shri Madhukar M V	VFAC	31.03.2013	Term Expired
3.	Dr. Samik Chowdhury	ASTP	30.04.2013	Resigned
4.	Dr. (Ms.) Deepmala Agarwal	ASTP	17.05.2013	Resigned
5.	Shri Praveen Ranjan Srivastava	LECT	22.05.2013	Resigned
6.	Dr. Dipaloy Datta	ASTP	29.06.2013	Resigned
7.	Prof. R.P. Khare	VPRO	16.07.2013	Term Expired
8.	Shri D.P. Sharma	ALIB	16.07.2013	Retired



S.No.	Name of Faculty	Desig.	Date of Leaving	Reason
9.	Shri Rajesh Purohit	LECT	16.07.2013	Term Expired
10.	Shri Chhotu Ram Rao	LECT	16.07.2013	Retired
11.	Prof. B.G. Saha	ASOP	16.07.2013	Retired
12.	Prof. M.K. Kashiramka	VPRO	16.07.2013	Term Expired
13.	Dr. (Ms.) Diksha Sharma	VFAC	16.07.2013	Term Expired
14.	Dr. (Ms.) Shashi	VFAC	16.07.2013	Term Expired
15.	Shri Dinesh Kumar Tyagi	LECT	22.07.2013	Resigned
16.	Shri V.R. Rajan	LECT	25.07.2013	Expired
17.	Dr. Vittaldas Prabhu B	ASTP	31.07.2013	Resigned
18.	Shri Mohammad Basheer Ahmed	LECT	28.09.2013	Resigned
19.	Dr. Mangal Roy	ASTP	21.10.2013	Resigned
20.	Dr. Ashish Madhukar Gujrathi	ASTP	02.12.2013	Resigned
21.	Dr. Shrinivas Shrikant Arkatkar	ASTP	05.12.2013	Resigned
22.	Dr. Kapil	ASTP	16.12.2013	Resigned
23.	Dr. (Ms.) Smita Kashiramka	ASTP	26.12.2013	Resigned
24.	Ms. Uma Maheswari Natarajan	VFAC	30.12.2013	Resigned
25.	Shri B.R. Murthy	VFAC	31.12.2013	Term Expired
26.	Prof. A.N. Pant	VFAC	31.12.2013	Term Expired
27.	Shri Nikhil Prakash	LECT	31.12.2013	Resigned

### ***K.K. Birla Goa Campus***

List of Faculty members who joined between 01-01-2013 to 31-12-2013.

S.No.	Name of Faculty	Desig.	Discipline	Date of Joining
1.	Dr. Madhu Kallingal Thodi	ASTP	PHY	02.01.2013
2.	Dr. Subhadeep Banerjee	ASTP	CHEM	03.01.2013
3.	Dr. Sree Raj E.S	ASTP	EEE	07.01.2013
4.	Ms. Shrabani Mukherjee	VFAC	ECON & FIN	15.01.2013
5.	Dr. Nilak Datta	ASTP	HUSS	18.01.2013
6.	Mr. Gavax Joshi	LECT	EEE	22.01.2013
7.	Mr. Dhiraj Bharat	LECT	EEE	22.01.2013
8.	Dr. Indrani Talukdar	ASTP	BIO	01.02.2013
9.	Dr. Arnab Banerjee	ASTP	BIO	05.03.2013
10.	Dr. Pushkar	VASTP	HUSS	06.03.2013
11.	Dr. Swarup Kumar Majee	ASTP	PHY	18.03.2013
12.	Dr. Madhvi Gupta	VASTP	HUSS	19.04.2013
13.	Dr. Kinjal Banerjee	ASTP	PHY	20.05.2013
14.	Dr. Raviprasad Aduri	ASTP	BIO	01.07.2013
15.	Dr. Venkatesan S. Thimmakonda	ASTP	CHEM	01.07.2013
16.	Dr. Rajaram Lakkaraju	ASTP	ME	01.07.2013
17.	Prof. Sanjeev K Aggarwal	SPRO	CSIS	30.07.2013
18.	Dr. Anandalakshmi Ramalingam	ASTP	CHEG	05.08.2013
19.	Ms. Layla Maria Mascarenhas	VFAC	HUSS	01.08.2013
20.	Mr. Atul Kumar	LECT	EEE	14.08.2013
21.	Dr. Trushar B. Gohil	ASTP	ME	30.08.2013
22.	Mr. Amitendu Bhattacharya	VFAC	HUSS	11.09.2013

S.No.	Name of Faculty	Desig.	Discipline	Date of Joining
23.	Dr. Jegatha Nambi Krishnan	ASTP	CHEG	11.09.2013
24.	Dr. Raghendra Gupta	ASTP	CHEG	12.09.2013
25.	Dr. Archana Srivastava	VFAC	ECON	04.10.2013
26.	Dr. Amar Kumar Behera	ASTP	ME	02.12.2013
27.	Prof. Nikolay Kharchenko	VPRO	ME	09.12.2013
28.	Dr. Baskar A.	ASTP	CSIS	17.12.2013

List of Faculty members who Left the Institute between 01-01-2013 to 31-12-2013

S.No.	Name of Faculty	Desig.	Date of Leaving	Reason
1.	Mr. Dhiraj Bharat	LECT	28.02.2013	Resigned
2.	Mr. N. Kubendran	LECT	28.05.2013	Resigned
3.	Mr. C. Phaneendra Kiran	LECT	30.05.2013	Resigned
4.	Dr. (Ms) Saby John K.	ASTP	01.06.2013	Resigned
5.	Mr. Mangesh Bedekar	LECT	15.06.2013	Term End
6.	Dr. Indranil De	ASTP	29.06.2013	Resigned
7.	Prof. B.J.C. Babu	VPRO	17.07.2013	Term End
8.	Dr. P. Venkateswara Rao	ASTP	22.10.2013	Resigned
9.	Dr. Anandalakshmi Ramalingam	ASTP	24.10.2013	Resigned
10.	Dr. Vineet Kumar Singh	ASTP	18.11.2013	Resigned
11.	Mr. Abhijeet Parvatker	LECT	13.12.2013	Resigned
12.	Ms. Sangeeta Jaiswal	VFAC	31.12.2013	Term End

### **Hyderabad Campus**

List of Faculty members who joined between 01-01-2013 to 31-12-2013.

S.No.	Name of Faculty	Desig.	Discipline	Date of Joining
1.	Dr. Sudatta Banerjee	ASTP	ECON & FIN	01.02.2013
2.	Dr. Payal Mehta	VFAC	ECON & FIN	15.02.2013
3.	Mr. S Hanumantha Rao	VFAC	ECON & FIN	01.04.2013
4.	Mr. Sivarama Krishna Kodali	VFAC	ECON & FIN	01.06.2013
5.	Dr. Phaneendra Kiran Chaganti	ASTP	ME	14.06.2013
6.	Dr. Swati Biswas	ASTP	PHAM	27.06.2013
7.	Dr. Jagan Mohan Jonnalagadda	ASTP	MATH	28.06.2013
8.	Dr. Durba Roy	ASTP	CHEM	01.07.2013
9.	Prof. Ashok Kumar Kapoor	VPROF	PHY	01.07.2013
10.	Mr. Sri Kalyana Rama J	LECT	CE	02.07.2013
11.	Mr. Sumit Kumar Vishwakarma	VFAC	MATH	04.07.2013
12.	Prof. S Swaminathan	PROF	BIO	05.07.2013
13.	Dr. Vikranth Kumar Surasani	ASTP	CHEG	15.07.2013
14.	Mr. Khalid Anwar	LECT	ME	18.07.2013
15.	Ms. Lakshmi Sirisha P	LECT	CHEG	05.08.2013
16.	Dr. Balaram Ghosh	ASTP	PHAR	02.09.2013
17.	Dr. Pradip Babanrao Dhamole	ASTP	CHEG	23.09.2013
18.	Dr. Adonis Vasile Lupulescu	ASTP	PHY	01.10.2013

S.No.	Name of Faculty	Desig.	Discipline	Date of Joining
19.	Dr. Kartick Tarafder	ASTP	PHY	21.10.2013
20.	Dr. Onkar Prakash Kulkarni	ASTP	PHAR	02.12.2013
21.	Dr. N Kishore Kumar	ASTP	MATH	12.12.2013
22.	Dr. Amrita Priyadarshini	ASTP	ME	12.12.2013
23.	Mr. KPV Paparao	LECT	ME	02.02.2013
24.	Ms. Vaniki Joshi	LECT	ECON & MGTS	01.08.2013
25.	Mr. Aditya Kolachana	LECT	ECON & FIN	18.06.2013
26.	Mr. Sanjeet Kumar Nayak	LECT	CS&IS	10.07.2013
27.	Mr. Ashish Sharma	LECT	CS&IS	14.09.2013

List of Faculty members who Left the Institute between 01-01-2013 to 31-12-2013

S.No.	Name of Faculty	Desig.	Date of Leaving	Reason
1.	Dr. (Ms) Santhosh Padmanabhan	ASTP	08.01.2013	Resigned
2.	Mr. KPV Paparao	LECT	17.05.2013	Resigned
3.	Dr. (Ms.) Paramita Bhattacharya	ASTP	15.06.2013	Resigned
4.	Dr. Sudipto Muhuri	ASTP	31.05.2013	Resigned
5.	Dr. Joy Anuradha	ASTP	27.06.2013	Resigned
6.	Dr. G Savitha	ASTP	12.07.2013	Resigned
7.	Ms. A V Ramani	LECT	16.07.2013	Resigned
8.	Ms. Vaniki Joshi	LECT	04.09.2013	Resigned
9.	Ms. Meghana Charde	LECT	18.10.2013	Resigned
10.	Dr. MVN Sivakumar	ASTP	12.12.2013	Resigned
11.	Dr. D Jaya Krishna	ASTP	16.12.2013	Resigned
12.	Mr. Sanjeet Kumar Nayak	LECT	27.12.2013	Resigned
13.	Mr. Aditya Kolachana	LECT	31.12.2013	Resigned

### **Dubai Campus**

List of Faculty members who joined between 01-01-2013 to 31-12-2013.

S.No.	Name of Faculty	Desig.	Discipline	Date of Joining
	-	-	-	-

List of Faculty members who Left the Institute between 01-01-2013 to 31-12-2013

S.No.	Name of Faculty	Desig.	Date of Leaving	Reason
1.	Dr. K. Nithyananthan	ASOP	20 <sup>th</sup> June 2013	Personal reasons
2.	Dr. Tanmay Panda	PROF	22 <sup>nd</sup> July 2013	Medical reasons

**DETAILS OF DISTRIBUTION OF PS-I STUDENTS AND FACULTY OVER  
PRACTICE SCHOOL - I STATIONS DURING THE SUMMER 2013**

S.No.	Centre	Station	No. of Students	No. of Faculty
1	AJMER	SHREE CEMENTS LIMITED (BEAWAR)	10	1
2	ANAND	AMUL DAIRY (K.D.C.M.P.U. LTD.	5	1**
		IDMC LTD.	6	1**
3	ANGUL	NALCO (POWER PLANT)	17	1
		NALCO (SMELTER PLANT)	15	1*
4	AURANGABAD	AURANGABAD ELECTRICALS	14	1
5	BADARPUR(DELHI)	NTPC	26	1
6	BANGALORE	AVASARALA TECHNOLOGIES LIMITED	6	1
		CIVIL - AID TECHNOCLINIC PVT. LTD.	10	1*
		HINDUSTAN AERONAUTICS LTD.	15	1*
		KARNATAKA STATE INDUSTRY & INFRASTRUCTURE DEVELOPMENT	9	1
		KIRLOSKAR ELECTRIC COMPANY	5	1*
		NASH INDUSTRIES	4	1*
		NEXTGEN ENERGY AND ENVIRONMENT CO.	5	1
		RAILTEL CORPORATION	7	1*
		TUNE PETROL MEDIA LABS PVT. LTD.	6	1**
		YUKEN INDIA LTD.	5	1*
7	BHADRAVATHI(SHIMOGA)	THE MYSORE PAPER MILLS LTD.	29	1
8	BHILAI	BHILAI STEEL PLANT	120	2**
9	BHOPAL	BHEL	20	1
10	BHUBANESWAR	THE INSTITUTE OF MINERALS AND MATERIALS TECHNOLOGY	15	1
11	BOKARO	BOKARO STEEL PLANT	25	1
12	CHANDRAPUR(MAHARASHATRA)	AWARPUR CEMENT WORKS	9	1
13	CHENNAI	CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE MADRAS CENTRE*	12	1
		CENTRAL LEATHER RESEARCH INSTITUTE*	22	1
		CSIO	6	1**
		INDIAN BANK	10	1
		IP RINGS(MARAIMALAI NAGAR)	4	1*
		MEDICAL RESEARCH FOUNDATION	8	1**
		NATIONAL METALLURGICAL LABORATORY, MADRAS CENTRE	5	1**
		RANE NSK STEERING SYSTEMS LTD.	5	1*
		RANE TRW STEERING SYSTEMS LIMITED	5	1*
		THE MADRAS MEDICAL MISSION	8	1*
		WHEELS INDIA LTD.	10	1*

S.No.	Centre	Station	No. of Students	No. of Faculty
14	CHITTORGARH	HINDUSTAN ZINC LTD.	10	1
15	COIMBATORE	CPC	10	1
16	DALMIAPURAM	DALMIA CEMENT (B) LTD.	10	1
17	DAMANJODI	NALCO	19	1*
18	DEHRADUN	INDIAN INSTITUTE OF REMOTE SENSING	15	1
		WADIA INSTITUTE OF HIMALAYAN GEOLOGY	15	1*
19	DELHI	(\$) CENTER OF EXCELLENCE IN TELECOMMUNICATION	6	1
		505 ARMY BASE WORKSHOP	11	1*
		GMR VARALAKSHMI FOUNDATION	10	1*
		HINDUSTAN PREFAB LIMITED	15	1
		INDIAN RED CROSS SOCIETY BLOOD BANK	20	1*
		MOSER BAER	7	1
		WONE MANAGEMENT SYSTEMS PVT LTD	9	1*
20	FARIDABAD	(\$) SUPERSEALS INDIA LTD.	5	1*
		ESCORTS	10	1*
		ORIENT FANS	5	1*
21	GANDHINAGAR	BHASKARACHARYA INSTITUTE OF SPACE	20	1**
22	GAUHATI	GAUHATI REFINERY	20	1
23	GOA	CARTINI INDIA LTD.	12	1
		CHOWGULE & CO. LTD.	13	1
		ENTERTAINMENT SOCIETY OF GOA	5	1*
		ESS DEE ALUMINIM LTD.	3	1*
		FLEX ART FOIL LTD.	2	1
		FUNSKOOL (INDIA) LTD.	10	1*
		GOA SHIPYARD LTD.	12	1
		NATIONAL CENTRE FOR ANTARTIC AND OCEAN RESEARCH	10	1*
		ORCHID BIO MEDICAL SYSTEMS	20	1
		PENTAIR WATER INDIA PVT. LTD.*	6	1
		POWER ENGINEERING INDIA PVT. LTD.	10	1*
		PUTZMEISTER	5	1*
		SMART LINK NETWORK SYSTEMS	8	1*
ZUARI INDUSTRIES LTD.	7	1*		
24	GOKAK FALLS (KARNATAKA)	GOKAK TEXTILES LTD.	15	1
25	GURGAON	(\$) RITES LTD.	10	1*
		PRECISION TECH ENTERPRISES*	4	1
		TKW FASTENERS	4	1*
26	HOOGLY	ADITYA BIRLA INSULATORS	6	1
27	HYDERABAD	(\$) ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION	23	1
		(\$) HYDERABAD INDUSTRIES LTD.	19	1

S.No.	Centre	Station	No. of Students	No. of Faculty
		AAROgyASRI HEALTH CARE TRUST, JAMBAGH	10	1
		AAROgyASRI HEALTH CARE TRUST, JUBILEE HILLS	10	1*
		BHARAT DYNAMICS LTD.	10	1
		CMC LTD	5	1**
		GMR VARALAKSHMI FOUNDATION	11	1*
		HBL POWER SYSTEMS LTD.	10	1
		HMT BEARINGS LTD.	30	1*
		L.V.PRASAD EYE INSTITUTE	8	1*
		LEXICON INFOTECH LTD	10	1*
		MAUKA TECHNOLOGIES PVT. LTD.	5	1*
		MOLD-TEK TECHNOLOGIES LTD.	8	1*
		NAVANIDHI ELECTRONICS PVT. LTD.	6	1*
		NCCCM	15	1*
		SERVOMAX INDIA PVT. LTD.	20	1*
28	JABALPUR	KEC INTERNATIONAL	10	1**
29	JAFFERABAD	GUJRAT CEMENT WORKS	6	1*
30	JAGGAYAPET	ANJANI CEMENT	10	1
		MADRAS CEMENTS	20	1*
31	JAIPUR	AMOL PHARMACEUTICALS PVT LTD	9	1**
		JAIPUR DEVELOPMENT AUTHORITY	15	1**
32	JALGAON	CROMPTON GREAVES LTD.	14	1
		NOVATEUR ELECTRICAL & DIGITAL SYSTEMS PVT. LTD.	5	1*
		ORIENT CEMENT	9	1*
		RAYMOND LTD.	10	1*
33	JAMNAGAR	ESSAR POWER	20	1
34	JAMSHEDPUR	TATA STEEL	16	1*
35	JHANSI	BHEL	10	1*
36	JODHPUR	BIRLA WHITE CEMENTS	10	1*
37	KALPAKKAM	(\$) MADRAS ATOMIC POWER STATION	20	1
		INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH	25	1*
38	KOCHI	CARBORUNDUM UNIVERSAL LTD.	8	1
		HINDUSTAN PREFAB LTD.	5	1*
39	KOLKATA	DCPL	6	1*
		HEDGE QUANTS	6	1*
		TEGA INDUSTRIES	5	1*
		TEXMACO LTD.	8	1*
40	KOTHAGUDAM	THE SINGARENI COLLIERIES COMPANY LTD.	10	1
41	LUCKNOW	BIOTECH PARK	20	1
42	MAHAN (MADHYA PRADESH)	ESSAR POWER	15	1

S.No.	Centre	Station	No. of Students	No. of Faculty
43	MALKHED (MAHARASHTRA)	RAJSHREE CEMENT	7	1*
44	MANESAR	EIH LIMITED	6	1*
		HONDA MOTORS	15	1*
		TKW AUTO.COM	4	1*
45	MUMBAI	ATOMIC ENERGY REGULATORY BOARD (AERB)	5	1
		BEN LINE AGENCIES (INDIA) PVT. LTD.	6	1*
		BHABHA ATOMIC RESEARCH CENTER	35	1*
		CANOPUS INSTRUMENTS	5	1
		CENTURY RAYON <sup>+</sup>	20	1**
		CMC LTD	10	1**
		FACT VENTURES PTE LTD.	11	1
		HOMI BHABHA CENTRE FOR SCIENCE EDUCATION (TIFR)	10	1
		HPCL	5	1*
		LARSEN & TOUBRO LIMITED	4	1*
		MUKAND LTD.	10	1*
		ORANGE BUSINESS SERVICES	5	1*
		PHYZOK LEARNING SOLUTIONS LLP	8	1*
		PRS PERMACEL PVT LTD	5	1*
		RELIANCE COMMUNICATIONS LTD.	14	1*
		TOY BANK	9	1*
46	MUNDRA (GUJARAT)	( $\$$ ) ADANI POWER	13	1*
47	MUSSOORIE	CENTRAL PUBLIC WORKS DEPARTMENT	10	1*
48	NAGDA	GRASIM CHEMICALS <sup>+</sup>	9	1**
		GRASIM INDUSTRIES <sup>+</sup>	28	1**
49	NAGPUR	GLOBAL LOGIC <sup>+</sup>	5	1*
		METAL FAB HIGH TECH PVT LTD.	10	1*
		NATIONAL ENVIRONMENTAL ENGINEERING RESEARCH INSTITUTE (NEERI)	5	1*
		WINDALSOPERATION	10	1*
50	NASHIK	( $\$$ ) CROMPTON GREAVES LTD.	5	1*
51	NEEMUCH (MADHYA PRADESH)	VIKRAM CEMENT WORKS	13	1*
52	NOIDA	GLOBAL AUTOTECH	12	1*
		HSCC (INDIA) LTD.	10	1*
53	PILANI	BIRLA MUSEUM	11	1
		CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE <sup>+</sup>	26	1**
54	PITHAMPUR	MAHLE ENGINE COMPONENTS INDIA PVT. LTD.	9	1
		NEOCORP INTERNATIONAL LIMITED	10	1*
		VE COMMERCIAL VEHICLES LTD.	8	1*
55	PUNE	BHARAT FORGE LTD., MUNDHWA	5	1**
		CYTEL STATISTICAL SOFTWARE &	6	1



S.No.	Centre	Station	No. of Students	No. of Faculty
		SERVICES PVT. LTD.		
		DIVGI-WARNER LTD.	5	1
		INTER-UNIVERSITY CENTRE FOR ASTRONOMY AND ASTROPHYSICS(IUCAA)	5	1*
		KIRLOSKAR PNEUMATIC COMPANY LIMITED	5	1
		MAPYN	11	1*
		MILITARY INSTITUTE OF TECHNOLOGIES	5	1*
		TATA TECHNOLOGIES <sup>+</sup>	10	1*
		THERMAX	8	1*
56	RAJULA (AMRELI)	( $\$$ ) GUJARAT CEMENT WORKS (FORMERLY NCCL)	12	1
57	RAMAGUNDAM	THE SINGARENI COLLIERIES COMPANY LTD.	10	1
58	RAWAN	RAWAN CEMENT WORKS	6	1*
59	REDDIPALAYAM(TAMIL NADU)	REDDIPALAYAM CEMENT WORKS	15	1*
60	RENUKOOT	HINDALCO	10	1*
61	ROORKEE	( $\$$ ) NATIONAL INSTITUTE OF HYDROLOGY	5	1*
62	ROURKELA	ROURKELA STEEL PLANT	39	2
63	SAHIBABAD	BHUSHAN STEEL LTD	16	1*
64	SIMGA(CHATTISGARH)	HIRMI CEMENT WORKS	15	1
65	SIRPUR KAGHAZNAGAR	THE SIRPUR PAPER MILLS LTD.	24	1*
66	TADPATHRI	ULTRATECH	10	1**
67	TARAPUR	( $\$$ ) TARAPUR ATOMIC POWER STATION	11	1*
68	TRICHY	BHEL	15	1*
69	TRIVANDRAM	CENTRE FOR DEVELOPMENT OF IMAGING TECHNOLOGY	15	1
		HINDUSTAN PREFAB LIMITED	7	1*
70	VIJAYANAGAR	JSW ENERGY	20	1**
		JSW STEEL <sup>+</sup>	20	1**
71	VIJAYAWADA	EFFTRONICS SYSTEMS PVT. LTD.	10	1
		KANAKA DURGA AGRO OIL PRODUCTS LTD	15	1*
		NAVATA ROAD TRANSPORT	9	1*
		178	2081	74

\* Faculty looking after more than one PS-I station

\*\* PS-II Faculty looking after PS-I

+ PS-I organisations hosting PS-II also

### SOME PRACTICE SCHOOL - II STATISTICS

Statistical Details of the Distribution of Students & Faculty over Practice School-II and Practice School (for Higher Degree) Stations during the year 2013

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
<b>Ahmedabad</b>						
1.	Torrent Research Centre	2	1*	-	-	2
<b>Aurangabad</b>						
2.	Skoda Auto India Pvt. Ltd.	8	1*	5	1*	13
<b>Bangalore</b>						
3.	20North Online	2	1*	-	-	2
4.	Aditya Auto products & Engg (I) .P.Ltd.	2	1*	5	2*	2
5.	Altair Engineering India Pvt. Ltd.	6	1*	8	2*	6
6.	Amazon Development Centre	12	1*	17	2*	29
7.	Analog Devices	8	1*	3	2*	11
8.	Apigee	4	1*	-	-	-
9.	ARM	9	1*	6	2*	15
10.	Aruba	5	1*	6	2*	11
11.	Azul Systems	2	1*	2	4*	4
12.	BasicNeeds UK	1	1*	2	1*	3
13.	Bosch	-	-	4	2*	4
14.	Biocon	3	1*	-	-	3
15.	Bionees	2	1*	-	-	2
16.	Broadcom India Pvt Ltd	20	1*	24	2*	44
17.	Cisco Systems (India) Pvt. Ltd.	5	1*	6	2*	11
18.	CIREL Systems	-	-	2	2*	2
19.	Cosmic Circuits Pvt. Ltd.	4	1*	4	2*	8
20.	CSIR-National Aerospace Laboratories	3	1*	5	2*	8
21.	CSR	4	1*	3	2*	7
22.	Cypress Semiconductors Tech India Pvt. Ltd	7	1*	-	-	7
23.	Dassault Systems India Pvt. Ltd.	5	1*	-	-	5
24.	Derrick Petroleum	2	1*	6	2*	8
25.	EBay India Development Centre	6	1*	10	2*	16
26.	EMC	11	1*	6	2*	17
27.	Ernst & Young Pvt. Ltd.	3	1*	4	2*	7
28.	Fiber Link	3	1*	8	2*	11
29.	Fiorano Software Technologies Pvt. Ltd.	5	1*	4	2*	9
30.	Flipkart Online Services Pvt. Ltd	14	1*	11	2*	25
31.	Frost & Sullivan	-	-	3	2*	3
32.	GE India Technology Center Pvt Ltd	4	1*	-	-	4
33.	Genpact Analytics	4	1*	9	2*	13

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
		34.	Global Logic +	-	-	
35.	Goldman Sachs India Pvt. Ltd.	11	1*	9	2*	20
36.	HP India Software Operation Pvt Ltd	1	1*	-	-	1
37.	HP Labs India	7	1*	-	-	7
38.	HSBC Global	3	1*	-	-	3
39.	ILabs	6	1*	5	2*	11
40.	India Drivers Network	2	1*	2	2*	4
41.	Infinera	4	1*	8	2*	12
42.	Informatica Business Solutions Pvt Ltd	4	1*	5	2*	9
43.	InMobi	3	1*	3	2*	6
44.	Infratab	-	-	2	2*	2
45.	Intel India Technology Pvt. Ltd.	19	1*	16	2*	35
46.	iRunway	-	-	2	2*	2
47.	ITW	-	-	3	1*	3
48.	Ixia Technologies	-	-	3	2*	3
49.	J.P. Morgan Chase	2	1*	-	-	2
50.	JDA Software Solutions	6	1*	18	2*	24
51.	Juniper Networks India Pvt. Ltd.	3	1*	-	-	3
52.	Knolskape Solutions Pvt. Ltd.	2	1*	2	2*	4
53.	Lantiq India Pvt. Ltd.	4	1*	3	2*	7
54.	LSI Research & Development Pvt. Ltd.	14	1*	11	2*	25
55.	MaxHeap Technologies Pvt Ltd	3	1*	-	-	3
56.	Media Iq Digital	3	1*	4	2*	7
57.	Mercedes Benz	9	1*	6	2*	15
58.	Mu Sigma Business Solutions	6	1*	10	2*	16
59.	Milaap	-	-	3	2*	3
60.	MyParichay Services Pvt. Ltd.	2	1*	2	2*	4
61.	National Centre for Biological Sciences	5	1*	-	-	5
62.	National Entrepreneurship Network	4	1*	6	2*	10
63.	Nabler Websolutions Pvt Ltd	-	-	2	2*	2
64.	NetApp	16	1*	8	2*	24
65.	NextGen PMS	2	1*	4	1*	6
66.	NetSkope Software India Pvt. Ltd.	-	-	3	2*	3
67.	Nvidia Graphics Pvt. Ltd.	10	1*	13	2*	23
68.	Oracle Financial Services Software Ltd.	4	1*	-	-	4
69.	Optumsoft Research Pvt Ltd	-	-	2	2*	2
70.	Oracle India Pvt. Ltd.	11	1*	4	2*	15
71.	Philips Research Asia	2	1*	-	-	2
72.	Playdom India Pvt. Ltd.	2	1*	-	-	2
73.	Polycom Technology (R&D) Centre Pvt. Ltd.	-	-	4	2*	4
74.	Practo Technologies Pvt. Ltd.	4	1*	2	2*	6
75.	Probe Equity Research Pvt. Ltd.	1	1*	-	-	1
76.	ReaMetrix India Pvt. Ltd.	2	1*	2	1*	4
77.	Raxa Security Services Ltd	-	-	2	2*	2

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
		78.	RedSeer Consulting	2	1*	
79.	Sabre Holdings(Formely Sabre Travels)	21	1*	19	2*	40
80.	SAMSUNG India Software Operations	4	1*	-	-	4
81.	SAP Labs	7	1*	7	2*	14
82.	Shell	4	1*	2	1*	6
83.	Satvva Media & Consulting Pvt Ltd	-	-	2	2*	2
84.	Siemens Corporate Research & Technologies	2	1*	-	-	2
85.	SiRIUS Embedded Software (P) Ltd.	2	1*	2	2*	4
86.	Skoda Auto India Pvt. Ltd.	5	1*	-	-	5
87.	ST Ericsson	7	1*	-	-	7
88.	Symantec Software India Pvt. Ltd.	6	1*	6	2*	12
89.	Symphony	5	1*	-	-	5
90.	Tangoe India Softek Pvt Ltd	-	-	2	2*	2
91.	TAS Analytic Services	4	1*	-	-	4
92.	Tejas Networks	4	1*	2	2*	6
93.	TESCO	7	1*	9	2*	16
94.	Texas Instruments (I) Pvt. Ltd.	12	1*	9	2*	21
95.	Tune Patrol Media Labs Pvt. Ltd.	2	1*	-	-	2
96.	Unilever	4	1*	2	1*	6
97.	Verisign Services (I) Pvt. Ltd.	2	1*	-	-	2
98.	VMware	5	1*	3	2*	8
99.	Walmart Global Technology Services	3	1*	2	2*	5
100.	Wadhani Foundation	-	-	4	2*	4
101.	Weir Engineering Services(India) Ltd.	1	1*	-	-	1
102.	Your Story.in	-	-	2	2*	2
103.	Zinnov Management Consulting Pvt. Ltd.	2	1*	-	-	2
104.	Zynga Game Networks India Pvt. Ltd.	27	1*	-	-	27
<b>Baroda</b>						
105.	L&T Integrated Engineering Services (L&T IES)	2	1*	-	-	2
<b>Chennai</b>						
106.	Amazon Development Center	6	1*	6	1*	12
107.	ARCI's Centre for Fuel Cell Technology	2	1*	1	1*	3
108.	Auro Mira Energy Company Pvt. Ltd.	2	1*	1	1*	3
109.	Behr India Ltd	-	-	1	1*	2
110.	Central Electronics Engineering Research Institute(Chennai Centre)	5	1*	6	1*	11
111.	Central Leather Research Institute <sup>+</sup>	3	1*	8	1*	11
112.	Central Scientific Instruments Organisation	-	-	3	1*	3
113.	Deloitte Consulting India Pvt. Ltd	1	1*	1	1*	2
114.	Ernst & Young Pvt. Ltd.	14	1*	4	2*	18
115.	Frost & Sullivan	6	1*	1	1*	7

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
116.	Healthcare Technology Innovation Centre (HITC)	-	-	4	1*	4
117.	Histogenetics	4	1*	4	1*	8
118.	Institute of Mathematical Science	2	1*	1	1*	3
119.	Karya Technologies	2	1*	2	1*	4
120.	LatentView Analytics	1	1*	-	-	1
121.	Lucas TVS Ltd.	1	1*	-	-	1
122.	M M Imagine Technologies, Pvt. Ltd	2	1*	-	-	2
123.	National Metallurgical Laboratory	-	-	2	1*	2
124.	Paypal	11	1*	3	1*	14
125.	Ramco Systems	21	1*	-	-	21
126.	Sankar Nethralaya	3	1*	3	1*	6
127.	Structural Engineering Research Centre	4	1*	4	2*	8
128.	Takata India Pvt Ltd	-	-	1	1*	1
129.	Venture Intelligence	-	-	2	2*	2
<b>Coimbatore</b>						
130.	ELGI Instruments	-	-	2	1*	2
131.	Janatics	2	1*	2	1*	4
132.	L&T	2	1*	2	1*	4
<b>Dahej (Gujarat)</b>						
133.	Birla Copper	2	1	2	1*	4
134.	Tega Industries SEZ Ltd	3	1*	2	1*	5
<b>Dehradun</b>						
135.	Indian Institute of Petroleum	5	1	4	2*	9
<b>Delhi</b>						
136.	Anaya Labs	3	1*	-	-	3
137.	Central Road Research Institute	2	1*	2	2*	4
138.	Consilium	6	1*	4	2*	10
139.	Deloitte Consulting India Pvt. Ltd	1	1*	1	2*	2
140.	Framebench technologies	-	-	2	2*	2
141.	Grey Orange Robotics Pvt. Ltd.	2	1*	2	2*	4
142.	National Council of Applied Economic Research	2	1*	4	2*	6
143.	National e-Governance Division	4	1*	3	2*	7
144.	National Institute of Science and Tech. Dev. Studies (NISTADS)	2	1*	4	2*	6
145.	Value Edge India	6	1*	6	2*	12
<b>Faridabad</b>						
146.	Rite Infotech Pvt Ltd	-	-	4	2*	4
<b>Goa</b>						
147.	Bosch	2	1	2	1	4
148.	IFB Global	6	1	2	1	8
149.	Lupin Ltd.	2	1	2	1	2
150.	Pentair Water India Pvt. Ltd. +	3	1	3	1*	6

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
151.	Starflex Sealing India Pvt. Ltd	2	1	3	1*	5
<b>Greater Noida</b>						
152.	ST Microelectronics (I) Pvt.Ltd.	19	1*	17	2*	36
<b>Gwalior</b>						
153.	Teva Api India Limited	-	-	1	2*	1
<b>Gurgaon</b>						
154.	Aurum Equity Partners	-	-	2	2*	2
155.	Bharti Soft Bank	-	-	2	2*	2
156.	Ernst & Young Pvt. Ltd.	5	1*	5	2*	10
157.	Jabong	-	-	10	2*	10
158.	Genpact Analytics	1	1*	-	-	1
159.	Glaxosmithkline Consumer Healthcare R&D	4	1*	-	-	5
160.	Hughes System Corporation	5	1*	-	-	5
161.	Mahle Filters India Ltd	-	-	2	2*	2
162.	Mediology Software Pvt. Ltd.	2	1*	-	-	2
163.	Precision Tech Enterprises <sup>+</sup>	5	1*	2	2*	7
164.	Reckitt Benckiser	3	1*	3	2*	6
165.	Sagacious Research	-	-	7	2*	7
166.	Skoda Auto India Pvt. Ltd.	4	1*	-	-	4
167.	SRF Ltd.	2	1*	3	2*	5
168.	WCG Robotics	-	-	2	2*	2
169.	Zapr	-	-	4	2*	4
<b>Halol(Baroda)</b>						
170.	Aditya Birla Insulator	3	1*	-	-	3
<b>Harihar, Karnataka</b>						
171.	Birla Polyfibers, Harihar	2	1*	-	-	2
<b>Hosur</b>						
172.	FTRTIL	-	-	4	1*	4
173.	Gabriel India Ltd	-	-	1	1*	1
174.	Titan Industries Ltd	8	1*	8	1*	16
<b>Hubli</b>						
175.	Weir Engineering Services(India) Ltd.	5	1*	2	2*	7
<b>Hyderabad</b>						
176.	Amazon Development Center	20	1*	19	2*	39
177.	Areca Embedded Sys Pvt. Ltd	2	1*	-	-	2
178.	Andhra Pradesh State Financial Corp.	-	-	4	2*	4
179.	Bharat Dynamics Ltd. (BDL)	4	1*	10	2*	14
180.	Bravo Lucy	3	1*	2	2*	5
181.	Centre for DNA Fingerprinting and Diagnostics	5	1*	4	2*	9
182.	CMC Ltd.	3	1*	2	2*	5
183.	Ducere Technologies Pvt. Ltd.	4	1*	2	2*	6
184.	Divami Software Pvt Ltd	-	-	2	2*	2
185.	EA Games	3	1*	3	2*	6

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
		186.	Fiorano Software Technologies Pvt. Ltd.	2	1*	
187.	FMC Technologies India Pvt. Ltd.	3	1*	-	-	3
188.	Genpact Analytics	2	1*	-	-	2
189.	Global E Procure	2	1*	3	2*	5
190.	Hetero Drugs Ltd.	3	1*	2	2*	5
191.	Hetero Med Solutions Ltd.	1	1*	-	-	1
192.	Hitachi Consulting	2	1*	2	2*	4
193.	IMI Mobile	2	1*	7	2*	9
194.	Indian Institute of Chemical Technology	7	1*	11	2*	18
195.	Informatica Business Solutions Pvt Ltd	2	1*	2	2*	4
196.	ITW India Limited	2	1*	2	2*	4
197.	Integrated Cleanroom Technologies Ltd.	--	-	3	2*	3
198.	JDA Software Solutions	6	1*	8	2*	14
199.	Mylan Labs Ltd. (formerly Matrix Labs Ltd.)	9	1*	13	2*	22
200.	My smart price	-	-	2	2*	2
201.	National Consultancy for Planning & Engineering	2	1*	-	-	2
202.	Novartis	8	1*	6	2*	14
203.	Nuevosol Energy Pvt. Ltd.	3	1*	-	-	3
204.	Nvidia Graphics Pvt. Ltd.	4	1*	6	6*	10
205.	Oracle India Pvt Ltd.	11	1*	8	2*	19
206.	Orvito Inc	2	1*	-	-	2
207.	Polmon	2	1*	2	2*	4
208.	Polycom Technology (R&D) Centre Pvt. Ltd.	3	1*	9	2*	12
209.	Puzzolana Machinery Fabricators Engineering Ltd.	6	1*	2	2*	8
210.	Slave Technologies Pvt. Ltd.	4	1*	-	-	4
211.	Sales Force	-	-	3	2*	3
212.	Sandilya Consulting Engineers	-	-	2	2*	2
213.	Silicon Image R&D Pvt Ltd	-	-	2	2*	2
214.	Steel Wedge Technologies Pvt. Ltd.	-	-	3	2*	3
215.	Solar Integration Systems India Private Limited	2	1*	-	-	2
216.	Thomas & Betts India Pvt. Ltd.	2	1*	3	2*	5
217.	Vasant Chemicals and Organics Ltd.	2	1*	2	2*	4
218.	Vidcentum R & D Pvt. Ltd	-	-	2	2*	2
219.	Xilinx	-	-	3	6*	3
220.	Yardstick	-	-	8	1*	8
<b>Jaipur</b>						
221.	Consulting Engineers Group	4	1*	-	-	4
222.	Jaipur Rugs Company Pvt. Ltd.	2	1*	-	-	2
223.	KEC International <sup>+</sup>	2	1*	-	-	2

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
224.	NBC Bearings	2	1*	2	1*	4
225.	SHArP Edge Learning Pvt. Ltd.	7	1*	5	1*	12
226.	Stellarix Consultancy Services Pvt Ltd.	-	-	3	1*	3
<b>Jodalli (Karnataka)</b>						
227.	Spicer India Ltd.	1	1*	-	-	1
<b>Kalyan (Mumbai)</b>						
228.	Century Rayon +	6	1	6	2*	12
<b>Kolkata</b>						
229.	BOC India Ltd.	4	1*	9	2*	13
230.	Development Consultants Pvt. Ltd. (DCPL)	2	1*	2	2*	4
231.	HSBC Global	1	1*	-	-	1
232.	Tega Industries Ltd.	2	1*	2	1*	4
233.	Texmaco	2	1*	-	-	2
<b>Kota</b>						
234.	Chambal Fertilizers and Chemicals Ltd.	2	1*	6	1*	8
<b>Mumbai</b>						
235.	Aditya Birla Corporate IT	3	1*	-	-	3
236.	Aditya Birla Science & Technology Company Ltd.	3	1*	5	2*	8
237.	Aviva Investors	1	1*	-	-	1
238.	CMC Ltd.	5	1*	5	2*	10
239.	Credit Suisse	10	1*	10	2*	20
240.	Deloitte Consulting India Pvt. Ltd	2	1*	2	2*	4
241.	Development Consultants Pvt. Ltd. (DCPL)	4	1*	4	2*	8
242.	Dolat Capital	5	1*	3	2*	8
243.	Dow Chemical International Pvt Ltd	2	1*	2	2*	4
244.	eClerx	-	-	10	2*	10
245.	Ecoedencity	2	1*	2	2*	4
246.	Enterpriseforce Pvt. Ltd.	-	-	2	3*	2
247.	Ernst & Young	-	-	5	2*	5
248.	Geometric Limited	2	1*	2	1*	4
249.	Healis Sekhsaria Institute for Public Health	1	1*	-	-	1
250.	Hourglass Research	2	1*	2	2*	4
251.	J.P. Morgan Investment Bank	6	1*	-	-	6
252.	J.P. Morgan Services India Pvt. Ltd	-	-	10	2*	10
253.	J.P.Morgan Chase	6	1*	9	2*	15
254.	Morgan Stanley Advantage Services	9	1*	12	2*	21
255.	MSCI Bara Client Services	4	1*	4	2*	8
256.	MSCI Barra, Data Management	4	1*	2	2*	6
257.	MSCI Barra, Quantitative Equity Research	2	1*	3	2*	5
258.	MSCI Institutional Shareholder Services	2	1*	-	-	2



S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
259.	MSCI Financial Planning & Analysis	-	-	1	2*	1
260.	National Stock Exchange of India Ltd.	1	1*	3	2*	4
261.	NOKIA - Location & Commerce (Formerly Navteq)	6	1*	4	2*	10
262.	Oracle Financial Services Software Ltd.	1	1*	-	-	1
263.	Pristine	2	1*	5	2*	7
264.	Sargur Powercon Systems	4	1*	-	-	4
265.	Saavn Media Pvt. Ltd.	-	-	1	2*	1
266.	Skoda Auto India Pvt. Ltd.	2	1*	-	-	2
267.	Tech Mahindra	2	1*	4	2*	6
268.	UltraTech Cement Ltd.	3	1*	-	-	3
<b>Nagda</b>						
269.	Grasim Chemicals <sup>+</sup>	2	1*	2	1*	4
270.	Grasim Industries Ltd.	5	1*	8	1*	13
<b>Nagpur</b>						
271.	Global Logic <sup>+</sup>	3	1*	2	2*	5
272.	KEC International <sup>+</sup>	2	1*	-	-	2
273.	Mahindra & Mahindra Ltd.	2	1*	-	-	2
274.	Skyline Consulting Engrs Pvt. Ltd.	2	1*	2	2*	4
<b>Narketpally</b>						
275.	Oil Country Tubular Ltd.	4	1*	4	2*	8
<b>Noida</b>						
276.	Adobe	3	1*	-	-	3
277.	GEIPER Consulting Ltd.	-	-	7	2*	7
278.	Global Logic	-	-	4	2*	4
279.	Nucleus Software Export Ltd	-	-	7	2*	7
280.	Navyug info Solution	3	1*	-	-	3
281.	Opera Solutions	-	-	3	2*	3
282.	Pyramid IT Consulting	3	1*	3	2*	6
283.	Synopsis	3	1*	-	-	3
<b>Pilani</b>						
284.	BITS Pilani Project Office (Shapoorji & Pallonji Co. Ltd.)	2	1*	2	1	4
285.	Central Electronics Engineering Research Institute <sup>+</sup>	10	1*	6	1*	16
<b>Pune</b>						
286.	Avaya India	3	1*	-	-	3
287.	AutoDesk	-	-	3	1*	3
288.	Behr India Pvt Ltd	-	-	3	1*	3
289.	Bentley Systems	2	1*	-	-	2
290.	Bharat Forge Ltd.	3	1*	4	1*	7
291.	Credit Suisse	29	1*	28	2*	57
292.	Divgi Warner (P) Limited	3	1*	3	1*	6
293.	Eaton Technologies	2	1*	1	1*	3
294.	eClerx	-	-	3	4*	3

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
295.	IDEaS - SAS	-	-	5	2*	5
296.	ITW India Ltd.	2	1*	-	-	2
297.	LOREAL India Pvt. Ltd.	2	1*	-	-	2
298.	LSI Research & Development Pvt. Ltd.	7	1*	5	1*	12
299.	Lupin Research Park	2	1*	-	-	2
300.	Mahle Filters India Ltd	-	-	1	1*	1
301.	Megatech Power Equipments Pvt. Ltd.	2	1*	-	-	2
302.	Nvidia Graphics Pvt. Ltd.	3	1*	2	1*	5
303.	Persistent Systems Limited	3	1*	-	-	3
304.	Reflexis Systems India Pvt Ltd.	6	1*	7	1*	13
305.	SKF India Ltd.	6	1*	6	1*	12
306.	Restructuring of ETKA Supportweb	5	1*	2	1*	7
307.	Solairedirect Energy India Pvt. Ltd.	2	1*	-	-	2
308.	Spicer India Ltd.	3	1*	2	1*	5
309.	Tata Autocomp Systems Ltd.	3	1*	18	1*	21
310.	Tata Motors	2	1*	5	1*	7
311.	Tata Technologies <sup>+</sup>	-	-	5	1*	5
312.	Tensilica	2	1*	-	-	2
313.	True Sparrow	2	1*	3	1*	5
<b>Roorkee</b>						
314.	Central Building Research Institute	2	1	4	2*	6
<b>Satara</b>						
315.	Spicer India Ltd.	1	1*	-	-	1
<b>Simla</b>						
316.	HISP	3	1	-	-	3
<b>Singapore</b>						
317.	Insead Business School	1	1	-	-	1
<b>Sirsi</b>						
318.	Divgi Warner (P) Ltd.	2	1	2	1*	4
<b>Tadipatri</b>						
319.	Ultratech Cement (Andhrapradesh Cement Works)	4	1*	5	2*	9
<b>Trivandrum</b>						
320.	Centre for Development of Imaging Technology (C-DIT)	5	1*	7	1*	12
321.	SunTec Business Solutions Pvt. Ltd.	4	1*	11	1*	15
<b>Tuni</b>						
322.	Deccan Fine Chemicals (I) Pvt. Ltd.	2	1*	3	2*	5
<b>Thailand</b>						
323.	Aditya Birla Chemicals Ltd	-	-	2	1	2

S.No.	Stations	Second Semester 07.01.2013 - 14.06.2013		First Semester 04.07.2013 - 14.12.2013		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
<b>Udaipur</b>						
324.	Hindustan Zinc Limited, Chittorgarh <sup>+</sup>	2	1	8	1*	10
<b>USA</b>						
325.	Cypress Semiconductor, San Jose, California	1	1	-	-	1
326.	DreamWorks Animation, Los Angeles	3	1	2	1*	5
327.	Pocket Gems	2	1	-	-	2
<b>Valsad</b>						
328.	Gadhia-solar	2	1*	-	-	2
329.	Atul Ltd.	-	-	4	2*	4
<b>Vijaynagar</b>						
330.	JSW Steel Ltd., Vijayanagar Works	6	1*	5	2*	11
<b>Veraval</b>						
331	Indian Rayon	-	-	7	2*	7
Total		1147	63	1127	60	2274

+ Stations hosting PS-I also

\* Faculty looking after more than one PS-II Station

## PRACTICE SCHOOL GROWTH STATISTICS

### PRACTICE SCHOOL-I

Session	No. of students who attended PS-I	No. of faculty who supervised PS-I	No. of PS-I stations
Summer 1973	15	04	01
Summer 1974	89	17	09
Summer 1975	244	26	14
Summer 1976	355	33	28
Summer 1977	349	32	38
Summer 1978	335	35	38
Summer 1979	474	45	53
Summer 1980	397	34	42
Summer 1981	372	33	36
Summer 1982	462	39	44
Summer 1983	476	43	49
Summer 1984	491	40	52
Summer 1985	514	42	52
Summer 1986	507	38	49
Summer 1987	497	35	49
Summer 1988	552	42	59
Summer 1989	574	42	58
Summer 1990	572	46	63
Summer 1991	530	43	62
Summer 1992	625	53	78
Summer 1993	648	56	87
Summer 1994	612	55	81
Summer 1995	607	54	80
Summer 1996	648	54	89
Summer 1997	628	53	86
Summer 1998	638	53	87
Summer 1999	568	42	73
Summer 2000	656	52	85
Summer 2001	770	52	100
Summer 2002	807	52	98
Summer 2003	861	60	115
Summer 2004	861	57	95
Summer 2005	840	54	83
Summer 2006	1376	68	129
Summer 2007	1340	79	138
Summer 2008	1399	72	133
Summer 2009	1355	68	121
Summer 2010	1926	95	204
Summer 2011	2065	107	203
Summer 2012	2036	105	183
Summer 2013	2081	74	178

**PRACTICE SCHOOL-II FOR INTEGRATED FIRST DEGREE**

<b>Semesters</b>	<b>No. of students who attended PS-II</b>	<b>No. of faculty who supervised PS-II</b>	<b>No. of PS-II stations</b>
Second Sem. 72-73	10	04	01
First Sem. 73-74	12	04	01
Second Sem. 73-74	12	08	01
First Sem.74-75	36	05	06
Second Sem. 74-75	56	15	09
First Sem.75-76	31	06	05
Second Sem. 75-76	75	12	15
First Sem.76-77	121	18	15
Second Sem. 76-77	110	21	18
First Sem.77-78	151	16	16
Second Sem. 77-78	159	19	20
First Sem.78-79	166	23	20
Second Sem. 78-79	171	23	26
First Sem. 79-80	159	25	23
Second Sem. 79-80	153	25	22
First Sem.80-81	183	27	25
Second Sem. 80-81	195	26	28
First Sem.81-82	181	28	30
Second Sem. 81-82	184	27	31
First Sem.82-83	208	26	32
Second Sem. 82-83	212	23	34
First Sem.83-84	213	30	31
Second Sem. 83-84	200	23	35
First Sem.84-85	217	30	34
Second Sem. 84-85	213	37	41
First Sem. 85-86	239	33	41
Second Sem. 85-86	231	34	46
First Sem.86-87	248	36	47
Second Sem. 86-87	249	40	45
First Sem.87-88	231	40	48
Second Sem. 87-88	232	36	46
First Sem.88-89	274	39	51
Second Sem. 88-89	269	30	51
First Sem.89-90	275	31	49
Second Sem. 89-90	272	32	49
First Sem.90-91	272	30	49
Second Sem. 90-91	274	29	57
First Sem. 91-92	306	32	62
Second Sem. 91-92	297	36	66
First Sem.92-93	297	38	68
Second Sem. 92-93	281	34	69
First Sem.93-94	311	36	69

Second Sem. 93-94	314	38	79
First Sem.94-95	335	36	80
Second Sem. 94-95	344	35	79
First Sem.95-96	330	43	84
Second Sem. 95-96	323	40	91
First Sem.96-97	321	42	92
Second Sem. 96-97	323	43	89
First Sem.97-98	320	42	86
Second Sem. 97-98	330	42	87
First Sem.98-99	317	36	82
Second Sem. 98-99	327	37	89
First Sem. 1999-2000	324	42	84
Second Sem. 1999-2000	335	42	91
First Sem. 2000-2001	347	43	85
Second Sem. 2000-2001	336	44	93
First Sem. 2001-2002	330	43	88
Second Sem. 2001-2002	349	36	84
First Sem. 2002-2003	400	40	99
Second Sem. 2002-2003	406	43	93
First Sem. 2003-2004	427	42	88
Second Sem. 2003-2004	426	43	88
First Sem. 2004-2005	456	44	94
Second Sem. 2004-2005	459	46	101
First Sem. 2005-2006	499	53	110
Second Sem. 2005-2006	470	48	113
First Sem. 2006-2007	458	46	103
Second Sem. 2006-2007	570	53	128
First Sem. 2007-2008	708	53	153
Second Sem. 2007-2008	763	54	165
First Sem. 2008-2009	864	54	174
Second Sem. 2008-2009	730	61	193
First Sem. 2009-2010	862	62	194
Second Sem. 2009-2010	871	66	229
First Sem. 2010-2011	897	62	219
Second Sem. 2010-2011	874	69	261
First Sem. 2011-2012	1085	72	259
Second Sem. 2011-2012	1087	63	273
First Sem. 2012-2013	1190	64	256
Second Sem 2012-2013	1147	63	263
First Sem 2013-2014	1127	60	246

## PRACTICE SCHOOL FOR HIGHER DEGREE

Semesters	No. of students who attended PS	No. of faculty who supervised PS	No. of PS stations where Higher Degree students were also sent
Second Sem. 91-92	18	09	12
First Sem.92-93	39	19	20
Second Sem. 92-93	41	19	21
First Sem.93-94	35	16	17
Second Sem. 93-94	41	11	15
First Sem.94-95	43	18	22
Second Sem. 94-95	45	17	17
First Sem.95-96	53	29	36
Second Sem. 95-96	52	27	35
First Sem.96-97	60	25	36
Second Sem. 96-97	55	25	33
First Sem.97-98	45	21	28
Second Sem. 97-98	56	22	29
First Sem.98-99	38	20	28
Second Sem. 98-99	46	19	24
First Sem. 1999-2000	62	26	34
Second Sem. 1999-2000	63	26	33
First Sem. 2000-2001	39	23	27
Second Sem. 2000-2001	50	26	36
First Sem. 2001-2002	85	23	27
Second Sem. 2001-2002	100	27	39
First Sem. 2002-2003	69	25	35
Second Sem. 2002-2003	46	20	22
First Sem. 2003-2004	02	02	02
Second Sem. 2003-2004	59	22	27
First Sem. 2004-2005	43	11	16
Second Sem. 2004-2005	88	20	32
First Sem. 2005-2006	46	16	19
Second Sem. 2005-2006	95	22	31
First Sem. 2006-2007	50	18	24
Second Sem. 2006-2007	111	30	47
First Sem. 2007-2008	55	23	31
Second Sem. 2007-2008	129	41	67
First Sem. 2008-2009	63	35	53
Second Sem. 2008-2009	174	48	84
First Sem. 2009-2010	38	18	21
Second Sem. 2009-2010	146	40	78
First Sem. 2010-2011	63	29	41
Second Sem. 2010-2011	181	42	96
First Sem. 2011-2012	78	29	44
Second Sem. 2011-2012	230	40	105
First Sem. 2012-2013	72	22	34
Second Sem 2012-2013	216	16	75
First Sem 2013-2014	2	4	2

+ It may be noted that the faculty members and PS stations indicated in this table are common to that of integrated First Degree PS-II Programme and thus numbers shown under the columns 3 and 4 are subsets of the respective columns of table "PRACTICE SCHOOL - II FOR INTEGRATED FIRST DEGREE" given above.

### FACILITIES AVAILABLE AT PS-II STATIONS DURING THE YEAR 2013

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
<b>AHMEDABAD</b>				
1	Torrent Research Centre	Rs. 8,000/- p.m.	No	No
<b>AURANGABAD</b>				
2	Skoda Auto India Pvt. Ltd	Rs.8,000/- p.m.	No	No
<b>BANGALORE</b>				
3	20North Online	Rs.18,000/- p.m. (FD) Rs. 20,000/- p.m. (HD)	No	No
4	Aditya Auto products & Engg (I).P. Ltd.	Rs.10,000/- p.m.	For Both Boys and Girls	No
5	Altair Engineering India Pvt. Ltd.	Rs.15,100/- p.m.	For Both Boys and Girls. Accommodation will be provided for first 15 days, however company should be informed well in advance i.e. immediately after allotment.	No
6	Amazon Development Centre	Rs. 30,000/- p.m.	7 days accommodation	7 days dedicated cab.
7	Analog Devices	Rs. 20,000/- p.m.	No	For Lunch:Sodexo Coupons worth Rs.1100 provided per month First class to and fro train fare.
8	Apigee	Rs.16,850/- p.m.	No	No
9	ARM	Rs.20,000/- p.m.	No	No
10	Aruba	Rs.25,000/- p.m.	No	No
11	Azul Systems	Rs.25,000/- p.m.	No	No
12	BasicNeeds UK	Rs.15,000/- p.m.	No	No
13	Bosch	Rs.15,000/- p.m.	Initial one week accommodation at company guest house free of cost	No
14	Biocon	Rs. 10,000/- p.m.(HD) Rs.8,000/- p.m.(FD)	No	No



S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
15	Bionees	Rs.6,000/- p.m.	No	No
16	Broadcom India Pvt Ltd	Rs.22,000/- p.m.	No	No
17	Cisco Systems (India) Pvt. Ltd.	Rs.28,700/- p.m. (FD) Rs. 35,000/- (HD)	No	No
18	CIREL Systems	Rs.20,000/- p.m.	No	No
19	Cosmic Circuits Pvt. Ltd.	Rs.15,000/- p.m.	No	No
20	CSIR-National Aerospace Laboratories	Rs.5,000/- p.m.	No	No
21	CSR	Rs.22,000/- p.m.	No	No
22	Cypress Semiconductors Tech India Pvt. Ltd	Rs.17,500/- p.m.	No	No
23	Dassault Systems India Pvt. Ltd.	Rs.30,000/- p.m.	No	No
24	Derrick Petroleum	Rs.20,000/- p.m.	No	Performance bonus will be there as per the work performance.
25	EBay India Development Centre	Rs.40,000/- p.m.	Initially one wk. accommodation will be provided.	Can make use of the company transport for their daily pick-up & drop. All the interns can reimburse one way travel expenses (air/train/bus) when they come onboard with Ebay.
26	EMC	Rs.25,000/- p.m.	No	Rs 400 worth food coupons provided by company
27	Ernst & Young Pvt. Ltd.	Rs.15,000/- p.m.	No	No
28	Fiber Link	Rs.27,000/- p.m.	No	No
29	Fiorano Software Technologies Pvt. Ltd.	Rs.20,000/- p.m.	No	No
30	Flipkart Online Services Pvt. Ltd	Rs.25,000/- p.m.	For Both Boys and Girls	No
31	Frost & Sullivan	Rs.7,000/- (Prev. Sem.)	No	No
32	GE India Technology Center Pvt Ltd	Rs.20,000/- p.m.	No	No
33	Genpact Analytics	Rs.12,000/- p.m.	No	No
34	Global Logic +	Rs.15,000/- p.m.	No	No
35	Goldman Sachs India Pvt. Ltd.	Rs.15,500/- p.m.	Outstation candidates will be provided initial 7 days accommodation	No
36	HP India Software Operation Pvt Ltd	Rs.15,500/- p.m.	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
37	HP Labs India	Rs.25,000/- p.m.	No	No
38	HSBC Global	Rs. 22,500/- p.m.	No	No
39	ILabs	Rs.30,000/- p.m.	No	Cafeteria with multiple cuisines is available students have to pay on their own for food.
40	India Drivers Network	Rs.12,000/- p.m.	No	No
41	Infinera	Rs.30,000/- p.m.	No	No
42	Informatica Business Solutions Pvt Ltd	Rs.30,000/- p.m.	Guest House stay for initial 2 weeks	No
43	InMobi	Rs.20,000/- p.m.	No	No
44	Infratab	Rs.18,000 p.m.	No	No
45	Intel India Technology Pvt. Ltd.	Rs. 18,000/- p.m. (FD). Rs. 22,000/- (HD)	No	First class to and fro train fare/ economy class air fare
46	iRunway	Rs. 15,000/- p.m.	No	No
47	ITW	Rs.10,000/- p.m.	No	No
48	Ixia Technologies	Rs.17,000/- p.m.	No	No
49	J.P. Morgan Chase	Rs.15,000/- p.m.	No	No
50	JDA Software Solutions	Rs.18,000/- p.m.	No	No
51	Juniper Networks India Pvt. Ltd.	Rs.25,000/- p.m.	No	No
52	Knolskape Solutions Pvt. Ltd.	Rs.20,000/- p.m.	No	No
53	Lantiq India Pvt. Ltd.	Rs.15,000/- p.m.	No	Food coupons by company
54	LSI Research & Development Pvt. Ltd.	Rs. 22,000/- p.m. (FD) Rs.24,000/- p.m. (HD)	No	No
55	MaxHeap Technologies Pvt Ltd	Rs.12,000/- p.m.	No	No
56	Media Iq Digital	Rs.20,000/- p.m.	No	Rs 1000 Sodexo coupons provided
57	Mercedes Benz	Rs.12000/- p.m.	No	Currently for Breakfast and lunch Rs100 and for to and fro transport Rs 800 p.m.is charged
58	Mu Sigma Business Solutions	Rs.10,000/- p.m.	No	Transport (cabs) is available for girls working after 8 and for boys working after 9
59	Milaap	Rs.15,000/- p.m.	No	No
60	MyParichay Services Pvt. Ltd.	Rs.22,000/- p.m.	No	No
61	National Centre for Biological Sciences	NIL	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
62	National Entrepreneurship Network	Rs.10,000/- p.m.	No	No
63	Nabler Websolutions Pvt Ltd	Rs.15,000/- p.m.	No	No
64	NetApp	Rs.25,000/- p.m.(FD) Rs. 30,000/- (HD)	Accommodation will be provided for only 14 days initially.	Company shuttle will be provided till the nearest conveyance point. To and fro flight fare booked by the authorized Travel partner of the company only.
65	NextGen PMS	Rs.12,000/- p.m.	Accommodation on Field trip Free dormitory	No
66	NetSkope Software India Pvt. Ltd.	Rs.36,000/- p.m.	No	No
67	Nvidia Graphics Pvt. Ltd.	Rs.25,000/- p.m.	For Both Boys and Girls	No
68	Oracle Financial Services Software Ltd.	Rs.25,000/- p.m.	No	No
69	Optumsoft Research Pvt Ltd	Rs.27,000/- p.m.	No	No
70	Oracle India Pvt. Ltd.	Rs.25,000/- p.m.	No	No
71	Philips Research Asia	Rs.18,000/- p.m.	No	One time travel fare reimbursed (air/train).
72	Playdom India Pvt. Ltd.	Rs.30,000/- p.m.	No	No
73	Polycom Technology (R&D) Centre Pvt. Ltd.	Rs.15,000/- p.m.	No	No
74	Practo Technologies Pvt. Ltd.	Rs.20,000/- p.m.	No	No
75	Probe Equity Research Pvt. Ltd.	Rs.15,000/- p.m.	No	No
76	ReaMetrix India Pvt. Ltd.	Rs.8,000/- p.m.	No	No
77	Raxa Security Services Ltd	Rs.15,000/- p.m.	No	No
78	RedSeer Consulting	Rs.10,000/- p.m.	No	No
79	Sabre Holdings(Formely Sabre Travels)	Rs.25,000/- p.m.	For Both Boys and Girls(Accommodation will be provided for the initial 2 weeks only)	Bus passes will be provided to students for commuting to office once onboard.
80	SAMSUNG India Software Operations	Rs.25,000/- p.m.	No	No
81	SAP Labs	Rs.25,000/- p.m.	For Both Boys and Girls	No
82	Shell	Rs.20,000/- p.m.	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
83	Satvva Media & Consulting Pvt Ltd	Rs.10,000/- p.m. (Tentative)	No	No
84	Siemens Corporate Research & Technologies	Rs.20,000/- p.m.	No	No
85	SiRIUS Embedded Software (P) Ltd.	Rs.10,000/- p.m.	No	No
86	Skoda Auto India Pvt. Ltd.	Rs.14,000/- p.m.	No	No
87	ST Ericsson	Rs.16,000/- - 17,000/- p.m.	No	No
88	Symantec Software India Pvt. Ltd.	Rs.18,000/- p.m.	No	Food is as per the company standards
89	Symphony	Rs.22,000/- p.m.	No	No
90	Tangoe India Softek Pvt Ltd	Rs.25,000/- p.m.	No	No
91	TAS Analytic Services	Rs.12,000/- p.m.	No	No
92	Tejas Networks	Rs.18,000/- p.m.	No	No
93	TESCO	Rs.20,000/- p.m.	No	No
94	Texas Instruments (I) Pvt. Ltd.	Rs.23,000/- p.m.	No	No
95	Tune Patrol Media Labs Pvt. Ltd.	Rs.5,000/- p.m.	No	No
96	Unilever	Rs. 8,000/- p.m.	No	No
97	Verisign Services (I) Pvt. Ltd.	Rs.15,100/- p.m.	No	No
98	VMware	Rs.25,000/- p.m.	No	No
99	Walmart Global Technology Services	Rs.30,000/- p.m.	For Both Boys and Girls	No
100	Wadhani Foundation	Rs.10,000/- p.m.	No	No
101	Weir Engineering Services(India) Ltd.	Rs.7,500/- p.m.	No	No
102	Your Story.in	Rs.15,000/- p.m.	No	No
103	Zinnov Management Consulting Pvt. Ltd.	Rs.20,000/- p.m.	No	No
104	Zynga Game Networks India Pvt. Ltd.	Rs.35,000/- p.m.	For Both Boys and Girls(ACCOMMODATION ONLY FOR 7 DAYS during relocating from campus)	3 tier A/C ticket on train will be reimbursed
<b>BARODA</b>				
105	L&T Integrated Engineering Services (L&T IES)	Rs.4,000/- p.m.	No	No
<b>CHENNAI</b>				
106	Amazon Development Center	Rs.30,000/- p.m.	Accommodation provided for initial 7 days.	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
107	ARCl's Centre for Fuel Cell Technology	NIL	No	No
108	Auro Mira Energy Company Pvt. Ltd.	Rs.10,000/- p.m. (Tentative)	No	No
109	Behr India Ltd	Rs.5,000/- p.m.	No	No
110	Central Electronics Engineering Research Institute(Chennai Centre)	Rs.800/- p.m.	No	No
111	Central Leather Research Institute +	NIL	No	No
112	CENTRAL SCIENTIFIC INSTRUMENTS ORGANISATION	NIL	No	No
113	Deloitte Consulting India Pvt. Ltd	Rs.12,000/- p.m.	No	No
114	Ernst & Young Pvt. Ltd.	Rs.15,000/- p.m.	No	No
115	Frost & Sullivan	Rs.8,000/- p.m.	No	No
116	Healthcare Technology Innovation Centre (HITC)	Rs.20,000/- p.m.	No	No
117	Histogenetics	Rs.10,000/- p.m.	No	No
118	Institute of Mathematical Science	Rs. 6,000/- p.m.	No	No
119	Karya Technologies	Rs.12,000/- p.m.	No	No
120	LatentView Analytics	Rs.15,000/- p.m.	No	No
121	Lucas TVS Ltd.	Rs.6,000/- p.m.	No	No
122	M M Imagine Technologies, Pvt. Ltd	Rs.10,000/- p.m.	No	No
123	NATIONAL METALLURGICAL LABORATORY	NIL	No	No
124	Paypal	Rs.40,000/- p.m.	Free acco for initial one week	No
125	Ramco Systems	Rs.15,000/- p.m.	No	No
126	Sankar Nethralaya	Rs.5,000/- p.m.	Limited paid accommodation facility may be available. Students should check with the organization for availability, well in advance.	No
127	Structural Engineering Research Centre	NIL	No	No
128	Takata India Pvt Ltd	Rs.5,000/- p.m.	No	No
129	Venture Intelligence	Rs.10,000/- p.m.	No	No
<b>COIMBATORE</b>				
130	ELGI Instruments	Rs.8,000/- p.m.	No	No
131	Janatics	Rs.8,000/- p.m.	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
132	L&T	Rs.6,000/- p.m.	No	No
<b>DAHEJ (GUJARAT)</b>				
133	Birla Copper	Rs.12,000/- (Previous Sem.)	No	No
134	Tega Industries SEZ Ltd	Rs. 15,000/-p.m.	For Both Boys and Girls	No
<b>DEHRADUN</b>				
135	Indian Institute of Petroleum	Rs. 2,000 (Tentative)	No	No
<b>DELHI</b>				
136	Anaya Labs	Rs.10,000/- p.m.	No	Additional upto Rs. 10000 based on performance
137	Central Road Research Institute		No	
138	Consilium	Rs.25,000/- p.m.	No	Reimbursement of actual fare during the field trips
139	Deloitte Consulting India Pvt. Ltd	Rs.12,000/- p.m.	No	No
140	Frame bench technologies	Rs.15,000/- p.m.	No	Stipend: Rs. 15,000 +/- 50% bonus p.m.
141	Grey Orange Robotics Pvt. Ltd.	Rs.18,000/- p.m.	No	Daily Shuttle To/Fro from Nearest Metro Station
142	National Council of Applied Economic Research	Rs 6,500/- p.m.	No	No
143	National e-Governance Division	Rs.10,000/- p.m.	No	No
144	National Institute of Science and Tech. Dev. Studies (NISTADS)	Rs 3,000/- p.m.	No	No
145	Value Edge India	Rs.15,000/- p.m.	No	No
<b>FARIDABAD</b>				
146	Rite Infotech Pvt Ltd	Rs.14,000/- p.m.	No	No
<b>GOA</b>				
147	Bosch	Rs.10,000/- p.m.	No	No
148	IFB Global	Rs.10,000/- p.m.	No	No
149	Lupin Ltd.	Rs.6,000/- p.m.	No	No
150	Pentair Water India Pvt. Ltd. <sup>+</sup>	Rs.5,000/- p.m.	For Both Boys and Girls	No
151	Starflex Sealing India Pvt. Ltd	Rs.5,000/- p.m.	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
<b>GREATER NOIDA</b>				
152	ST Microelectronics(I) Pvt.Ltd.	Rs.18,000/- p.m. (FD) Rs. 20,000/- p.m. (HD)	No	No
<b>GWALIOR</b>				
153	TEVA API INDIA LIMITED	Rs.5,000/- p.m.	No	No
<b>GURGAON</b>				
154	Aurum Equity Partners	Rs.15,000/- p.m.	No	No
155	Bharti Soft Bank	Rs.25,000/- p.m.	No	No
156	Ernst & Young Pvt. Ltd.	Rs.15,000/- p.m.	No	No
157	Jabong	Rs.20000 (Operations), 25000 (IT)	No	No
158	Genpact Analytics	Rs.12,000/- p.m.	No	No
159	Glaxosmithkline Consumer Healthcare R&D	Rs.10,000/- p.m.	No	No
160	Hughes System Corporation	Rs.8,000/- p.m.	No	No
161	Mahle Filters India Ltd	Rs.5,000/- p.m.	No	No
162	Mediology Software Pvt. Ltd.	Rs.20,000/- p.m.	No	No
163	Precision Tech Enterprises +	Rs.8,000/- p.m.	No	Rs. 5000/- (Variable) The variable component indicated above is the maximum which will be given only on outstanding performance during the internship
164	Reckitt Benckiser	Rs.25,000/- p.m.	No	No
165	Sagacious Research	Rs.8,000/- p.m.	No	No
166	Skoda Auto India Pvt. Ltd.	Rs.14,000/- p.m.	No	No
167	SRF Ltd.	Rs.12,000/- p.m.	No	Students may have to work at plant location at Bhiwadi. Company bus will be available for the purpose..
168	WCG Robotics	Rs.5,000/- p.m.	Accommodation provided if possible	No
169	Zapr	Rs.30,000/- p.m.	No	No
<b>HALOL (Baroda)</b>				
170	Aditya Birla Insulator	Rs.6,800/- p.m.	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
<b>HARIHAR, Karnataka</b>				
171	Birla Polyfibers, Harihar	Rs.5,000/- p.m.	Only For Boys	Club facilities against payment are available.
<b>HOSUR</b>				
172	FTRTIL	Rs.5,000/- p.m.	For Both Boys and Girls	No
173	Gabriel India Ltd	Rs.5,000/- p.m.	No	No
174	Titan Industries Ltd	Rs.10,000/- p.m.	No	No
<b>HUBLI</b>				
175	Weir Engineering Services(India) Ltd.	Rs.7,500/- p.m.	No	No
<b>HYDERABAD</b>				
176	Amazon Development Center	Rs.30,000/- p.m.	acco. provided initial 7 days	No
177	Areca Embedded Sys Pvt. Ltd	Rs.6,000/- p.m.	No	No
178	Andhra Pradesh State Financial Corp.	Rs.5,000/- p.m.	No	No
179	Bharat Dynamics Ltd. (BDL)	Rs.5,000/- p.m.	No	No
180	Bravo Lucy	Rs.30,000/- p.m.	They will provide 2-3 days Guest House facility when the students report.	No
181	Centre for DNA Fingerprinting and Diagnostics	NIL	For Both Boys and Girls	No
182	CMC Ltd.	Rs.8,000/- p.m.	Not Provided	No
183	Ducere Technologies Pvt. Ltd.	Rs.25,000/- p.m.	For Both Boys and Girls	No
184	Divami Software Pvt Ltd	Rs.16,000/- p.m.	No	No
185	EA Games	Rs.16,000/- p.m.	No	No
186	Fiorano Software Technologies Pvt. Ltd.	Rs.20,000/- p.m.	No	No
187	FMC Technologies India Pvt. Ltd.	Rs.10,000/- p.m.	No	No
188	Genpact Analytics	Rs.12,000/- p.m.	No	No
189	Global E Procure	Rs.12,500/- p.m.	No	No
190	Hetero Drugs Ltd.	Rs.5,000/- p.m.	No	No
191	Hetero Med Solutions Ltd.	Rs.5,000/- p.m.	No	No
192	Hitachi Consulting	Rs.9,000/- p.m.	No	No
193	IMI Mobile	Rs.18,000/- p.m.	No	No
194	Indian Institute of Chemical Technology	NIL	For Both Boys and Girls	No



S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
195	Informatica Business Solutions Pvt Ltd	Rs.30,000/- p.m.	No	Guest house stay for initial 2 weeks.Relocation package of up to Rs 25,000/- (subject to Original receipts with Service tax number & Pan number produced within 2 months from the date of joining.
196	ITW India Limited	Rs.10,000/- p.m.	No	No
197	Integrated Cleanroom Technologies Ltd.	Rs.10,000/- p.m.	If students are out of Hyderabad, initially two weeks accommodation at company guest house	No
198	JDA Software Solutions	Rs.18,000/- p.m.	No	No
199	Mylan Labs Ltd. (formerly Matrix Labs Ltd.)	Rs.6,000/- p.m.	No	No
200	My smart price	Rs.20,000/- p.m.	No	No
201	National Consultancy for Planning & Engineering	Rs.5,000/- p.m.	No	No
202	Novartis	Rs.15,000/- p.m.	No	No
203	Nuevosol Energy Pvt. Ltd.	Rs.9,000/- p.m.	No	Performance bonus may be provided.
204	Nvidia Graphics Pvt. Ltd.	Rs.25,000/- p.m.	Acco. provided for both Boys & Girls initial 14 days	No
205	Oracle India Pvt Ltd.	Rs.26,000/- p.m.	No	No
206	Orvito Inc	Rs.8,000/- p.m.	No	No
207	Polmon	Rs.10,000/- p.m.	No	No
208	Polycom Technology (R&D) Centre Pvt. Ltd.	Rs.15,000/- p.m.	No	No
209	Puzzolana Machinery Fabricators Engineering Ltd.	Rs.5,000/- p.m.	No	No
210	Slave Technologies Pvt. Ltd.	Rs.12,000-15000/- p.m.	Only For Boys	No
211	SALES FORCE	Rs.20,000/- p.m.	No	No
212	Sandilya Consulting Engineers	Rs.5,000/- p.m.	No	No
213	Silicon Image R&D Pvt Ltd	Rs.20,000/- p.m.	No	No
214	Steel Wedge Technologies Pvt. Ltd.	Rs.17,000/- p.m.	No	Two way train fare reimbursement
216	Thomas & Betts India Pvt. Ltd.	Rs.8,960/- p.m.	No	No
217	Vasant Chemicals and Organics Ltd.	Rs.3,000/- p.m.	No	No
218	Vidcentum R & D Pvt. Ltd	Rs.10,000/- p.m.	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
219	Xilinx	Rs.20,000/- p.m.	No	No
220	Yardstick	Rs.5,000/- p.m.	No	No
<b>JAIPUR</b>				
221	Consulting Engineers Group	Rs.10,000/- p.m.	No	No
222	Jaipur Rugs Company Pvt. Ltd.	Rs.6,000/- p.m.	No	No
223	KEC International <sup>+</sup>	Rs.6,000/- p.m.	No	No
224	NBC Bearings	Rs.4,000/- p.m.	No	No
225	SHARp Edge Learning Pvt. Ltd.	Rs.10,000/- p.m.	No	No
226	Stellarix Consultancy Services Pvt Ltd	Rs.10,000/- p.m.	No	No
<b>JODALI (KARNATAKA)</b>				
227	Spicer India Ltd	Rs.5,000/- p.m.	No	No
<b>KALYAN (Mumbai)</b>				
228	Century Rayon <sup>+</sup>	Rs.6,000/- p.m.	For Both Boys and Girls	No
<b>KOLKATA</b>				
229	BOC India Ltd.	Rs.6,500/- p.m.	No	No
230	Development Consultants Pvt. Ltd. (DCPL)	Rs.9,000/- p.m.	No	No
231	HSBC Global	Rs.22,500/- p.m.	No	No
232	Tega Industries Ltd.	Rs.15,000/- p.m.	Only For Boys	No
233	Texmaco	Rs.3,000/- p.m.	Only for Boys (furnished accommodation)	No
<b>KOTA</b>				
234	Chambal Fertilizers and Chemicals Ltd.	Rs 6,000/- p.m.	Only For Boys	No
<b>MUMBAI</b>				
235	Aditya Birla Corporate IT	Rs. 11,000/- p.m.	No	No
236	Aditya Birla Science & Technology Company Ltd.	Rs. 8,500/- p.m.	No	No
237	Aviva Investors	Rs.20,000/- p.m.	No	No
238	CMC Ltd.	Rs.8,000/- p.m.	No	No
239	Credit Suisse	Rs.25,000/- p.m.	No	No
240	Deloitte Consulting India Pvt. Ltd	Rs.12,000/- p.m.	No	No
241	Development Consultants Pvt. Ltd. (DCPL)	Rs. 8,500/- p.m.	No	No
242	Dolat Capital	Rs.17,000/- p.m.	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
243	Dow Chemical International Pvt Ltd	Rs.15,000/- p.m.	No	No
244	eClerx	Rs.15,000/- p.m.	No	No
245	Ecoedency	Rs 8,000/- p.m.	Only For Boys	No
246	Enterpriseforce Pvt. Ltd.	NIL	No	Only performance based incentive
247	Ernst & Young	Rs.15,000/- p.m.	No	No
248	Geometric Limited	Rs.12,000/- p.m.	No	No
249	Healis Sekhsaria Institute for Public Health	Rs.10,000/- p.m.	No	No
250	Hourglass Research	Rs.15,000/- p.m.	No	No
251	J.P. Morgan Investment Bank	Rs. 20,000/- p.m.	No	No
252	J.P. Morgan Services India Pvt. Ltd.	Rs.25,000/- p.m.	No	Economy class to and fro air fare or second to and fro train fare
253	J.P.Morgan Chase	Rs.15,000/- p.m.	No	Sodexo card provided to get food from canteen
254	Morgan Stanley Advantage Services	Rs.30,000/- p.m.	For Both Boys and Girls	Only Return air tickets (economy class) are provided.
255	MSCI Bara Client Services	Rs.30,000/- p.m.	No	No
256	MSCI Barra, Data Management	Rs.30,000/- p.m.	No	No
257	MSCI Barra, Quantitative Equity Research	Rs.30,000/- p.m.	No	No
258	MSCI Institutional Shareholder Services	Rs.30,000/- p.m.	No	No
259	MSCI Financial Planning & Analysis	Rs.30,000/- p.m.	No	No
260	National Stock Exchange of India Ltd.	Rs.7,500/- p.m.	No	No
261	NOKIA - Location & Commerce (Formerly Navteq)	Rs.20,000/- p.m.	No	No
262	Oracle Financial Services Software Ltd.	Rs.25,000/- p.m.	No	No
263	Pristine	Rs.25,000/- p.m.	No	No
264	Sargur Powercon Systems	Rs.12,000/- p.m.	No	No
265	Saavn Media Pvt. Ltd.	Rs.30,000-35,000/- p.m.	No	No
266	Skoda Auto India Pvt. Ltd.	Rs.14,000/- p.m.	No	No
267	Tech Mahindra	Rs.5,000/- p.m.	No	No
268	UltraTech Cement Ltd.	Rs.15,000/- p.m.	No	No
<b>NAGDA</b>				
269	Grasim Chemicals <sup>+</sup>	Rs.5,000/- p.m.	Only For Boys	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
270	Grasim Industries Ltd.	Rs.5,000/- p.m.	For Both Boys and Girls	No
<b>NAGPUR</b>				
271	Global Logic <sup>+</sup>	Rs.15,000/- p.m.	No	No
272	KEC International <sup>+</sup>	Rs.6,000/- p.m.	No	No
273	Mahindra & Mahindra Ltd.	Rs.10,000/- p.m.	No	No
274	Skyline Consulting Engrs Pvt. Ltd.	Rs.5,000/- p.m.	No	No
<b>MARKETPALLY</b>				
275	Oil Country Tubular Ltd.	Rs.10,000/- p.m.	No	No
<b>NOIDA</b>				
276	Adobe	Rs.30,000/- p.m.	No	No
277	GEIPER Consulting Ltd.	Rs.12,000/- p.m.	No	No
278	Global Logic	Rs.15,000/- p.m.	No	No
279	Nucleus Software Export Ltd	Rs.10,000/- p.m.	No	No
280	Navyug info Solution	Rs.15,000/- p.m.	No	No
281	Opera Solutions	Rs.30,000/- p.m.	No	No
282	Pyramid IT Consulting	Rs.10,000/- p.m.	No	No
283	Synopsis	Rs.20,000/- p.m.	No	No
<b>PILANI</b>				
284	BITS Pilani Project Office (Shapoorji & Pallonji Co. Ltd.)	Rs.10,000/- p.m.	No	No
285	Central Electronics Engineering Research Institute <sup>+</sup>	Rs. 2,000/- p.m.	No	No
<b>PUNE</b>				
286	Avaya India	Rs.14,000/- p.m.	No	No
287	AutoDesk	Rs.15,000/- p.m.(FD) Rs.20,000/- (HD)	No	No
288	Behr India Pvt Ltd.	Rs.5,000/- p.m.	No	No
289	Bentley Systems	Rs.12,000-15,000/- p.m.	No	No
290	Bharat Forge Ltd.	Rs.5,000/- p.m.	No	No
291	Credit Suisse	Rs.25,000/- p.m.	No	No
292	Divgi Warner (P) Limited	Rs.10,500/- p.m.	No	No
293	Eaton Technologies	Rs.10,500/- p.m.	No	No
294	eClerx	Rs.15,000/- p.m.	No	No
295	IDeaS - SAS	Rs.30,000/- p.m.	No	No
296	ITW India Ltd.	Rs.10,000/- p.m.	No	No
297	LOREAL India Pvt. Ltd.	Rs.12,000/- p.m.	No	No

<b>S.No.</b>	<b>PS-II Station</b>	<b>Out of pocket Allowance (Rs. Per Month)</b>	<b>Accommodation provided</b>	<b>Other</b>
298	LSI Research & Development Pvt. Ltd.	Rs.22,000/- p.m. (FD) Rs 24,000/- p.m. (HD)	No	No
299	Lupin Research Park	Rs.6,500/- p.m.	No	No
300	Mahle Filters India Ltd	Rs.5,000/- p.m.	No	No
301	Megatech Power Equipments Pvt. Ltd.	Rs.12,000/- p.m.	No	No
302	Nvidia Graphics Pvt. Ltd.	Rs.25,000/- p.m.	Acco. provided for both boys and girls initial 14 days.	No
303	Persistent Systems Limited	Rs.7,500/- p.m.	No	No
304	Reflexis Systems India Pvt Ltd.	Rs.20,000/- p.m.	No	No
305	SKF India Ltd.	Rs.6,000/- p.m.	No	No
306	Skoda Auto India Pvt. Ltd.	Rs.12,000/- p.m.	No	No
307	Solairedirect Energy India Pvt. Ltd.	Rs.10,000/- p.m.	No	No
308	Spicer India Ltd.	Rs.5,000/- p.m.	No	No
309	Tata Autocomp Systems Ltd.	Rs.8,000/- p.m.	No	No
310	Tata Motors	Rs.6, 000/- p.m.	No	No
311	Tata Technologies +	Rs.12,000/- p.m.	No	No
312	Tensilica	Rs.15,000/- p.m.	No	For transportation, Rs.1000 per month for each candidate will be given.
313	True Sparrow	Rs.25,000/- p.m.	Return tickets for travel, acco. for initial two weeks	No
<b>ROORKEE</b>				
314	Central Building Research Institute	Rs. 4,000/- p.m.	No	No
<b>SATARA</b>				
315	Spicer India Ltd.	Rs.5,000/- p.m.	No	No
<b>SIMLA</b>				
316	HISP	Rs.10,000/- p.m.	No	No
<b>SINGAPORE</b>				
317	Insead Business School	2,500 (Singapore \$)	No	No
<b>SIRSI</b>				
318	Divgi Warner (P) Ltd	Rs.10,500/-p.m.	No	No

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)	Accommodation provided	Other
<b>TADIPATRI</b>				
319	Ultratech Cement (Andhrapradesh Cement Works)	Rs.6,000/- p.m.	For Both Boys and Girls	No
<b>TRIVANDRUM</b>				
320	Centre for Development of Imaging Technology (C-DIT)	Rs.5,000/- p.m.	No	No
321	SunTec Business Solutions Pvt. Ltd.	Rs.10,000/- p.m.	No	No
<b>TUNI</b>				
322	Deccan Fine Chemicals (I) Pvt. Ltd	Rs.4,000/- p.m.	Only For Boys	No
<b>THAILAND</b>				
323	Aditya Birla Chemicals Ltd	5,000(Thai Bhat)	No	No
<b>UDAIPUR</b>				
324	Hindustan Zinc Limited, Chittorgarh <sup>+</sup>	Rs. 5,000/-p.m.	Only For Boys	No
<b>USA</b>				
325	Cypress Semiconductor, San Jose, California	\$3,000/- p.m.	No	No
326	DreamWorks Animation, Los Angeles	\$3,000/- p.m.	No	No
327	Pocket Gems	\$3,000/- p.m.	No	No
<b>VALSAD</b>				
328	Gadhia-solar	Rs.5,000/- p.m.	Only For Boys	No
329	Atul Ltd.	Rs.8,000/- p.m.	Only For Boys	No
<b>VIJAYANAGAR</b>				
330	JSW Steel Ltd., Vijayanagar Works	Rs.5,000/- p.m.	No	No
<b>VERAVAL</b>				
331	Indian Rayon	Rs.6,500/- p.m.	No	No

<sup>+</sup> Station hosting PS-I also.

<sup>\*</sup> Faculty looking after more than one PS-II Station

## LIST OF PROJECT ASSIGNMENTS FOR SECOND SEMESTER 2012-2013

1. **IDEA CELLULAR LTD, AHMEDABAD**
  1. CGI REPORT AUTOMATION
2. **TORRENT RESEARCH CENTRE, AHMEDABAD**
  2. QUALITY BY DESIGN OF COSMACEUTICAL (FACEWASH GEL)
  3. FORMULATION AND EVALUATION OF SOLID LIPID NANOPARTICLE FOR NDD 009
3. **SKODA AUTO INDIA PVT. LTD, AURANGABAD**
  4. ERGONOMIC IMPROVEMENT OF LOGISTICAL PROCESS : WHEEL RIM & BATTERY SUPPLY
  5. MULTI MODEL LINE BALANCING
4. **[24-7]/ I-LABS, BANGALORE**
  6. PXOE: VALIDATION & VERIFICATION
  7. AUTOMATED SOFTWARE TESTING OF [24]7ASSIST
  8. WEB APPLICATION
  9. COBROWSING FEATURE INTEGRATION IN [24]7 ASSIST
  10. [24]7ASSIST DESIGN & DEVELOPMENT
  11. PREDICTION OF WEB DEMOGRAPHICS FROM WEB JOURNEY
5. **20NORTH ONLINE, BANGALORE**
  12. AUTOMATION OF VARIOUS DATASETS
  13. IMPORTANCE OF WEB-ANALYTICS, MARKETING-ANALYTICS & ONLINE KPIS FOR AN E-COMMERCE COMPANY LIKE ZANSAAR
6. **ADITYA AUTO PRODUCTS & ENGG (I) .P.LTD, BANGALORE**
  14. RESEARCH ON PERMANENT MAGNET DC MOTORS & SWITCHED RELUCTANCE MOTORS
7. **ALTAIR ENGINEERING INDIA PVT. LTD, BANGALORE**
  15. IMPLEMENTATION OF PARAMETERIZATION IN HYPERSTUDY AND DEVELOPMENT OF FIELD MAP TOOL IN HYPERMESH
  16. DEVELOPMENT OF INTERFACE FOR PAMCRASH UNDER CRASH USER PROFILE AND UPGRADATION OF LS-DYNA IN HYPERMESH
  17. DOCUMENTATION AND MIGRATION OF POST-PROCESSING TOOLS
  18. PROCESS MAPPING OF PEDESTRIAN CRASH TESTING SIMULATION USING CAE SOLVER RADIOSS.
  19. CUSTOM LICENSING SOLUTION PACKAGING, AND PRIME SHIP HULL GEOMETRY READER
8. **AMAZON DEVELOPMENT CENTRE, BANGALORE**
  20. PRESENTATION LAYER FOR APPSTORE ANALYTICS USING ORACLE BUSINESS INTELLIGENCE
  21. HATS SERVICE DEVELOPMENT
  22. CAMPAIGN CREATOR AND BLOCK LIST MANAGER
  23. ENGINEERING IMPROVEMENTS AND PERSONALIZATION
  24. APP TESTING PLATFORM
  25. DEVELOPMENT OF SELF-SERVICE TOOLS IN CATEGORY CONFIGURATION MANAGER
  26. TECH SPEC FEATURE MIGRATION TO DPX
  27. BINS RE-ARCHITECTURE
  28. IMPROVE RETAIL BUSINESS SERVICES NEW ITEM SETUP WORK ALLOCATION APPLICATION TO ELIMINATE MANUAL TRACKER FOR ASSIGNING WORK TO ASSOCIATES
  29. AUDIT TRIAL PROJECT
  30. TRANSACTION RISK MANAGEMENT
  31. SELLERSERVICESIN WEBSITE AND CRAWLER AUTOCONFIG TOOL
  32. OPERATIONAL CONSOLE FOR USL RECONCILIATION SYSTEM AND BALANCE TRACKER SELF SERVICE
  33. AUTO GENERATION PLUGIN
  34. TWISTER FEATURE AND RELATED SERVICES
  35. PRICING ATTRIBUTE PREDICTION SERVICE

9. **ANALOG DEVICES, BANGALORE**
  36. DESIGN VERIFICATION OF GENERAL PURPOSE DIGITAL SIGNAL PROCESSORS
  37. PERFORMANCE ANALYSIS OF GENERAL PURPOSE SYSTEM ON CHIP
  38. DESIGN VERIFICATION OF SHARC DIGITAL SIGNAL PROCESSOR
  39. DIGITAL EMBEDDED SOLUTION TO CAR PARKING ASSISTANCE
  40. DESIGN & ELECTROMIGRATION ANALYSIS OF I/O PADS
  41. DESIGN OF A 14 BIT CYCLIC ANALOG TO DIGITAL CONVERTER
  42. DESIGN VERIFICATION OF GENERAL PURPOSE DIGITAL SIGNAL PROCESSORS
  43. CONTINUOUS TIME DELTA SIGMA ADC WITH MULTI-BIT QUANTIZER
  44. PERFORMANCE ANALYSIS OF DSP ALGORITHMS ON ARM PROCESSORS
10. **APIGEE, BANGALORE**
  45. ONLINE EXAMINATION TOOL & MIGRATION FROM LEGACY SYSTEM TO 4G
  46. ONLINE EXAMINATION TOOL & FEATURE ADDITION TO APIGEE API CONSOLE TO-GO
  47. ONLINE EXAMINATION IS AN INTERNET BASED QUESTIONNAIRE.
  48. JMETER TESTING AND VALIDATION OF JSON APIs, JMETER PLUGIN DEVELOPMENT FOR FILE REPLAY
11. **ARM, BANGALORE**
  49. ANALYSING QUALITY OF VERILOG AND ATPG LIBRARY VIEW VALIDATION
  50. MEMORY FLOW
  51. PHYSICAL VLSI DESIGN
  52. GENERIC REGRESSION FLOW
  53. A REPORT ON BENCHMARKING OF ANDROID BASED DEVICES
  54. PORTING THE LEGACY ARCHITECTURE VALIDATION SUITE (AVS) FOR BIG-END ONLY ARM PROCESSOR
  55. AUTOMATION OF ADVANCED MICROPROCESSOR VALIDATION FLOW
  56. POWER ANALYSIS OF IP (INTELLECTUAL PROPERTY) CORE
  57. AUTOMATION FOR SYSTEM VALIDATION FRAMEWORK
12. **ARUBA, BANGALORE**
  58. SMOKE TESTING ON ARUBAOS
  59. OEM REBRANDING OF ARUBA CLEARPASS APPLICATIONS
  60. USABILITY IMPROVEMENTS IN APSIM (ACCESS POINT SIMULATOR)
  61. AUTOMATION OF SYSTEM SOLUTION TEST-BED
  62. AUTOMATION OF UI TESTING OF CLEARPASS POLICY MANAGER
13. **AZUL SYSTEMS, BANGALORE**
  63. JAVA VIRTUAL MACHINE VALIDATION ENGINEERING
  64. JVM VALIDATION ENGINEERING
14. **BASICNEEDS UK, BANGALORE**
  65. DEVELOPMENT OF SOCIAL FRANCHISE MASTER PACKAGE
15. **BIOCON, BANGALORE**
  66. SIX SIGMA (DMAIC) ANALYSIS FOR IMPROVEMENT OF PRODUCT CARTRIDGE YIELD PROJECT II:DESIGN OF QUALIFICATION PROCEDURES FOR LABORATORY INSTRUMENT- MICROBIAL IDENTIFICATION SYSTEM - VITEK2
  67. INCREASING CLEANING EFFICIENCY THROUGH CLEAN-IN PLACE (CIP) CYCLE IMPROVISATION
  68. SIX SIGMA (DMAIC) ANALYSIS FOR IMPROVEMENT OF PRODUCT CARTRIDGE YIELD
16. **BIONEEDS, BANGALORE**
  69. ASSAY DEVELOPMENT AND EXPRESSION AND PURIFICATION OF PROTEIN FROM BACTERIAL HOST
  70. DEVELOPMENT OF MONOCLONAL ANTIBODY AGAINST BACTERIAL EXPRESSED PEPTIDE TAGS
17. **BROADCOM INDIA RESEARCH PVT LTD, BANGALORE**
  71. CHARACTERIZATION AND VALIDATION OF MULTIMODE UMTS & USER EQUIPMENT FUNCTIONALITY AND PROTOCOL SOFTWARE
  72. TURNKEY SET TOP BOX SOLUTION FOR INDIAN MARKETS
  73. CHARACTERIZATION AND VALIDATION OF MULTIMODE UMTS USER EQUIPMENT
  74. 2D/3D GRAPHICS IP VERIFICATION
  75. VERIFICATION ENVIRONMENT ENHANCEMENTS FOR SCALABILITY
  76. FUNCTIONAL COVERAGE IMPLEMENTATION FOR 10-GIG MAC



- 77. PHYSICAL DESIGN IMPLEMENTATION AND CAD DEVELOPMENT
- 78. VERIFICATION OF AUDIO SUB-BLOCK HARDWARE ( DSP SUB-SYSTEM )
- 79. CHARACTERIZATION AND VALIDATION OF MULTIMODE UMTS USER EQUIPMENTFUNCTIONALITY AND PROTOCOLSOFTWARE
- 80. VERIFICATION OF NETWORK SWITCHING IC'S
- 81. ANALOG FILTER DESIGN AND AUDIO HARDWARE PERFORMANCE MEASUREMENTS
- 82. DEVELOPMENT OF SUSPEND MAC HANDLER ANDDEBUG TOOLSFOR THE DRIVER
- 83. COMPENSATION OF IQ IMBALANCE
- 84. DESIGN VERIFICATION OF SYSTEM ON CHIP (SOC).
- 85. THE AMRWBPLUS CODEC OPTIMIZATION TO GET REAL TIME PERFORMANCE ON STB CHIP WITH DUAL SIMD PROCESSOR.
- 86. VERIFICATION OF AUDIO INPUT OUTPUT INTERFACES
- 87. FPGA MAPPING OF SOC FOR ASIC DEVELOPMENT.
- 88. SPUR MITIGATION TECHNIQUES
- 89. DESIGN & DEVELOPMENT OF A NIGHTLY BASED AUTOMATIC TEST SUITE TO HANDLE FAILURES PROACTIVELY USING THE COUNT OF BEACON MANAGEMENT FRAMES IN IEEE 802.11 WLAN & CLEAR CHANNEL ASSESSMENT STATISTICS
- 90. VOICE ACTIVITY DETECTION AND SYLLABLE RECOGNITION
- 18. CISCO SYSTEMS (INDIA) PVT. LTD, BANGALORE**
  - 91. NETWORK EVENT ANALYSIS TOOLKIT (NEAT)
  - 92. MULTITHREADED IKEV2 FOR VPN SCALING
  - 93. NETWORK EVENT ANALYSIS TOOLKIT (NEAT)
  - 94. DEVELOPMENT OF GRAPHICAL USER INTERFACE FOR CISCO VOICE TEST TOOL 'CAMELOT'
  - 95. URL LEARNING FEATURE FOR WIDE AREA APPLICATION SERVICES
  - 96. AUTOMATION OF TASKS IN WEBEX SOCIAL THROUGH PYTHON AND SHELL SCRIPT
  - 97. SAAS CLOUD CONNECTOR VISIBILITY
- 19. COSMIC CIRCUITS PVT. LTD, BANGALORE**
  - 98. HIGH FREQUENCY TRANSFORMER DESIGN
  - 99. HIGH POWER BIDIRECTIONAL DC-DC CONVERTER: DUAL ACTIVE BRIDGE CIRCUIT DESIGN And BUCK CONVERTER DESIGN FOR BATTERY CHARGE CONTROLLER
  - 100. FUEL GAUGE ARCHITECTURE
- 20. CSIR-NATIONAL AEROSPACE LABORATORIES, BANGALORE**
  - 101. IN SITU TEMPERATURE MEASUREMENT AND HEAT GENERATION ANALYSIS DURING FABRICATION OF ANODIC ALUMINIUM OXIDE TEMPLATE
  - 102. INTERFACIAL BEHAVIOR OF CNTS IN POLYMERIC MATRIX SYSTEM
  - 103. PREPARATION AND CHARACTERIZATION OF ELECTROLESS NICKEL COMPOSITE COATINGS
- 21. CSR, BANGALORE**
  - 104. NEW VM API TO USE THE BIT SERIALISER
  - 105. INTEGRATION OF DSLA TEST SYSTEM IN TO FATS TEST SYSTEM
  - 106. WINDOWS 8 APPLICATION FOR BLUETOOTH LOW ENERGY DEVICES
  - 107. BLUETOOTH LOW ENERGY LIGHTING CONTROL
- 22. CYPRESS SEMICONDUCTORS TECH. INDIA PVT. LTD, BANGALORE**
  - 108. ASSERTION BASED FUNCTIONAL VERIFICATION OF TRIGGER BLOCK
  - 109. TOTAL CYCLE TIME REDUCTION OF A HIGHLY CONFIGURABLE SUBSYSTEM IP
  - 110. ASSERTION BASED FUNCTIONAL VERIFICATION OF TRIGGER BLOCK
  - 111. DESIGN OF UPF FILE VIEWER
  - 112. DESIGN OF SHIELD DRIVER FOR CAPSENSE APPLICATIONS
  - 113. FIRMWARE DEVELOPMENT IN CAPSENSE
  - 114. FIRMWARE DEVELOPMENT FOR CAPACITIVE TOUCH SENSING
- 23. DERRICK PETROLEUM, BANGALORE**
  - 115. BUSINESS ANALYSIS OF UPSTREAM OIL AND GAS INDUSTRY
  - 116. MARKET RESEARCH ON UPSTREAM OIL AND GAS COMPANIES
- 24. EBAY INDIA DEVELOPMENT CENTRE, BANGALORE**
  - 117. CROSS BROWSER COMPATIBILITY TESTING TOOL
  - 118. PRICE GRABBER- ANDROID APPLICATION AND ELECTRONIC FITMENTS
  - 119. CONTINUOUS INTEGRATION PIPELINE AND ELECTRONIC FITMENTS

- 120. DEVELOP A MOBILE MONITORING TOOL & UI LAYOUT FOR CAL REPORTS
- 121. RESTFUL WEB SERVICE FOR GIFT CERTIFICATE CREATION
- 122. ANDROID APP DEVELOPMENT FOR EBAY SELLERS
- 25. EMC, BANGALORE**
  - 123. TESTING AUTOMATION IN SMARTS (SYSTEM MANAGEMENT ARTS)
  - 124. CODE IMPACT ANALYZER TO IMPROVE SOFTWARE QUALITY ANALYSIS
  - 125. TEST AUTOMATION FOR EMC BACKUP & RECOVERY MANAGER
  - 126. DATA PROTECTION MANAGER AND GARBL
  - 127. AUTOMATION FRAMEWORK FOR NETWORKER BACKUP LOAD MONITORING
  - 128. WORK FLOW ANALYSIS - CHOREOGRAPHY OF AVAMAR SERVER UPDATES
  - 129. PROSPHERE SYSTEM TESTING AND SYSTEM TESTING TOOL DEVELOPMENT
  - 130. PERFORMANCE AUTOMATION FOR AVAMAR DATABASE MODULES
  - 131. DATA PROTECTION MANAGER AND GARBL
  - 132. CONTINUOUS PERFORMANCE AUTOMATION
  - 133. APPLICATION OF DATA PROTECTION MANAGER AND PERFORMANCE MONITORING OF A STORAGE VIRTUALIZATION APPLIANCE IN SAN USING SNMP
- 26. ENSCI GLOBAL-WEIR, BANGALORE**
  - 134. DESIGN, DEVELOPMENT AND FABRICATION OF ELECTROMAGNETIC PUMP TEST-RIG FOR SOLAR POWER PLANTS
- 27. ERNST & YOUNG PVT. LTD, BANGALORE**
  - 135. COMPUTER AIDED AUDIT TECHNIQUES USING ACL AND GAT TOOLS
  - 136. FAST CLOSE ENABLEMENT PROCESS
- 28. FIBER LINK, BANGALORE**
  - 137. DEVELOPING EMAIL CLIENT FOR IPHONE
  - 138. WEB SERVICE DEVELOPMENT AND POLICY FILES UPLOAD
  - 139. WEB SERVICE AND UI DEVELOPMENT
- 29. FIORANO SOFTWARE TECHNOLOGIES PVT. LTD, BANGALORE**
  - 140. TESTING & ENHANCEMENT OF FIORANO ESB (ENTERPRISE SERVICE BUS )
  - 141. TESTING OF NON-JAVA CLIENT LIBRARIES USING TSC FRAMEWORK
  - 142. TESTING AND ENHANCEMENT OF FIORANO ESB
- 30. FLIPKART ONLINE SERVICES PVT. LTD, BANGALORE**
  - 143. DEVELOPMENT OF REPORTING ENGINE FOR TRAFFIC GENERATION
  - 144. INVENTORY PLANNING ANALYTICS
  - 145. DATA REPORTING PLATFORM - OPERATIONAL METRICS AND TIMELINE
  - 146. DEVELOPMENT AND FEATURES IMPLEMENTATION IN ANALYTICS DATA PRODUCTS
  - 147. TAX CALCULATIONS IN PURCHASE ORDERS TO VENDORS
  - 148. DEVELOPMENT OF A FEATURE TO RECEIVE INVENTORY IN WAREHOUSE
  - 149. MOBILE ANDROID APP DEVELOPMENT FOR WAREHOUSING
  - 150. VIRTUALIZATION OF MYSQL
  - 151. ROUTE MAPPING OF SHIPMENTS
  - 152. ADAPTING FLIPKART REPORTING SYSTEM TO HADOOP
  - 153. LIVE MONITORING DASHBOARD
  - 154. DEVELOPING TOOLS FOR MAINTAINING SUPPLY CHAIN PLATFORM
  - 155. ANOMALY DETECTOR FOR SHIPMENTS IN LOGISTICS AND ROLE BASED ACCESS FOR LOGISTICS SCREEN
  - 156. ANALYSIS OF FLIPKART SALES
- 31. GE INDIA TECHNOLOGY CENTER PVT LTD, BANGALORE**
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  - 158. FAILURE LOAD ANALYSIS BY SOLID MODELLING OF WIND TURBINE BLADE CROSS-SECTION
  - 159. PERFORMANCE OF WIND TURBINE AND DESIGNING OF WIND TURBINE TOWER
  - 160. SITE SPECIFIC LOADS OPTIMISATION OF WIND TURBINE
- 32. GENPACT ANALYTICS, BANGALORE**
  - 161. ANALYSIS ON THE IMPACT OF AGE OF LOCOMOTIVE ON ITS FAILURE RATE
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  - 166. CSL BUILD IN A NEW PLATFORM
  - 167. BUSINESS CASE TO PRIORITIZE THE NEED FOR AUTOMATION OF THE PROCESS OF INTER-SYSTEM RECONCILIATIONS
  - 168. ANALYSIS OF CALCULATION ALGORITHMS IN COMPREHENSIVE BENCHMARK ANALYTICS
  - 169. REVIEWING AND TESTING OF TRADES FOR CROSS PRODUCT EXOTIC TRADE REVIEW
  - 170. EQUITY DERIVATIVES CONTROLS
  - 171. CLEARING OPS INCOME AND EXPENSE FEE CONTROLS
  - 172. ACCOUNT REVIEWS ON 'SENTRY'
  - 173. TRANSACTION DATA CONTROL
- 34. HP INDIA SOFTWARE OPERATION PVT LTD, BANGALORE**
  - 174. IMPLEMENT XML GATEWAY FOR BACKUP EXEC & INTEGRATE WITH REPLICATION MANAGER COMMON USER INTERFACE CONTEXT
  - 175. IMPLEMENT XML REPORTS FOR NETBACKUP TO INTEGRATE WITH REPLICATION MANAGER IN COMMON USER INTERFACE
- 35. HP LABS INDIA, BANGALORE**
  - 176. FEATURES FOR FORM PROCESSING
  - 177. LANGUAGE MODELING APPROACH TO MODIFY VIDEO-BOOK
  - 178. TASK EXECUTION MANAGEMENT ON CROWDSOURCING PLATFORMS
  - 179. PREDICTION USING SOCIAL MEDIA
  - 180. OPTICAL CHARACTER RECOGNITION USING ACTIVE LEARNING
  - 181. PREDICTION USING SOCIAL MEDIA
  - 182. A GRAPH DATA MODEL FOR USE IN AN ELECTRONIC SERVICE MARKET PLACE
- 36. HSBC GLOBAL, BANGALORE**
  - 183. PROCESS FLOW STANDARDIZATION AND STRATEGY EVALUATION FOR HBUS RISK TEAM
  - 184. KPI AND REPORT STANDARDIZATION
  - 185. MALAYSIA CREDIT CARDS PERFORMANCE
- 37. INDIA DRIVERS NETWORK, BANGALORE**
  - 186. FRONT-END AND BACK-END TECHNOLOGIES FOR MGAADI CLOUD SERVICES
  - 187. MGAADI FOR COMMUTERS
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  - 188. VERIFICATION OF REGISTER TRANSFER LEVEL DESIGN ON FPGA
  - 189. DEVELOPMENT OF LIBRARIES FOR AUTOMATION OF TEST SETS
  - 190. ENHANCEMENT AND SUPPORT TO RAFFLE (AN IN-HOUSE TEST AUTOMATION TOOL) AND TRAM
  - 191. DESIGN OF DEBUG MODULE FOR OPTICAL TRANSPORT UNIT AND ENHANCING POWER AND LINT FLOW
  - 192. LARGE NETWORK VIEWER AND DEBUGGER
  - 193. MODULE ADDITIONS TO THE INFINERA NETWORK PLANNING SYSTEM
  - 194. INFINERA PROGRAMMABLE INTERFACE DESIGN AND VERIFICATION AUTOMATION
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  - 195. CREATING A CUSTOM JAVA SOURCE ADAPTER USING APPSDK FOR INFORMATICA'S MERCURY
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  - 199. COUCHDB ADAPTER DEVELOPMENT
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  - 200. COMPETITIVE ANALYSIS AND CREATION OF PRODUCTS PORTAL
  - 201. LEARNING MANAGEMENT SYSTEM
  - 202. A REPORT ON CONTENT MANAGEMENT AT INMOBI
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  - 204. ENABLING AND PERFORMANCE OPTIMIZATION OF SOFTWARE APPLICATIONS ON TABLETS

- 205. UNOBTRUSIVE CHARGING TECHNIQUES FOR EMBEDDED PORTABLE DEVICES
- 206. DENSITY MODELING
- 207. INTEL GRAPHICS DRIVER PERFORMANCE IMPROVEMENT AND ENHANCEMENTS TO DISPLAY CHRONOMETER
- 208. AQUA GUI DEVELOPMENT
- 209. DEVELOPMENT OF TOOL IN THE COMMON CODE BASE PROJECT
- 210. BUILDING A 3D GRAPHICS APP USING OPENGL TO UNDERSTAND THE GRAPHICS PIPELINE
- 211. PARASITIC EXTRACTION FOR ROTARY INTERCONNECTS
- 212. SOC BASED VIDEO ACCELERATOR: PROTOTYPING AND EMULATION ON FPGA
- 213. INTEL WIRELESS DISPLAY
- 214. AUTOMATING THE ECO FLOW FOR TIMING FIXES
- 215. ECG DATA ANALYSIS
- 216. USB OVER IP
- 217. POWER ESTIMATION AND REDUCTION TECHNIQUES
- 218. GRAPHICS PIPELINES AND VALIDATION
- 42. J.P. MORGAN CHASE, BANGALORE**
  - 219. ACTIVITIES OF JP MORGAN – GLOBAL ACH DIVISION AND THE ASIA STP EFFICIENCY PROJECT
  - 220. ACCOUNT SERVICES
- 43. JDA SOFTWARE SOLUTIONS, BANGALORE**
  - 221. ENABLE AUTOMATED REGRESSION FRAMEWORK FOR ASSORTMENT
  - 222. TRANSPORTATION MANAGER SOLUTION
  - 223. ENVIRONMENT INFORMATION APPLICATION & MDM DEBUGGING INTERFACE
  - 224. TEST CASE CREATION, OLT PROFILES, SEGMENTATION AND SUB SEGMENTATION ATTRIBUTES IN INVENTORY OPTIMIZATION
  - 225. DATA DUMP METHODOLOGIES, DATABASE MOVE FOR IO 8.0 AND ENTERPRISE WIKI
  - 226. DESIGN, DEVELOPMENT AND EXECUTION OF TEST CASES FOR HOT-SPRINGS AND OSS SCHEDULING/SEQUENCING PRODUCTS
- 44. JUNIPER NETWORKS INDIA PVT. LTD, BANGALORE**
  - 227. WEB BASED APPLICATION DEVELOPMENT
  - 228. IMPROVEMENTS IN DDL TEST INFRASTRUCTURE
  - 229. TEST AUTOMATION OF IEEE 802.1 STANDARD BASED ETHERNET CFM PROTOCOL UNDER ITU-T Y.1731 SPECIFICATION.
  - 230. AUTOMATION OF MULTICAST SNOOPING
  - 231. DCD SMOKE-TEST AUTOMATION INFRASTRUCTURE
  - 232. HTTP TRAFFIC SIMULATOR FOR WIRED & WIRELESS(LTE) NETWORK
  - 233. AUTOMATED PCAP GENERATION AND SIGNATURE TESTING
- 45. KNOLSKAPE SOLUTIONS PVT. LTD, BANGALORE**
  - 234. NETWORK SIMULATION AND AUTOMATED ASSESSMENT VIA COMPUTATIONAL LINGUISTICS
  - 235. COMMON ADMIN MODE AND INFORMATION RETRIEVAL BY WEB SCRAPING
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  - 237. UNDERSTANDING VLSI IMPLEMENTATION OF FFT/IFFT AND IMPLEMENTATION OF A UVM SYSTEM VERILOG TESTBENCH FOR A JTAG INTERFACE
  - 238. SYSTEM ON CHIP VERIFICATION OF GRX390 ROUTERS
  - 239. SOC VERIFICATION OF PPE/SWITCH MODULES IN GRX390 ROUTER
- 47. LSI RESEARCH & DEVELOPMENT PVT. LTD, BANGALORE**
  - 240. PHYSICAL DESIGN (BACKEND)
  - 241. PHYSICAL IMPLEMENTATION OF ASIC
  - 242. PHYSICAL DESIGN OF BLOCKS OF A NETWORK PROCESSOR
  - 243. PHYSICAL VERIFICATION OF 28NM NETWORKING DOMAIN DESIGNS
  - 244. PHYSICAL DESIGN AND STATIC TIMING ANALYSIS
  - 245. PHYSICAL DESIGN FLOW AND POWER ANALYSIS
  - 246. PORTING OF STORAGE CONTROLLER RTL DESIGN ON ALTERA FPGAS.
  - 247. TESTING & VERIFICATION IN VLSI DFT-DESIGN FOR TESTABILITY

- 48. MAXHEAP TECHNOLOGIES PVT LTD, BANGALORE**
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  - 250. DEVELOPING, EMAIL DELIVERY SYSTEM API
- 49. MEDIA IQ DIGITAL, BANGALORE**
- 251. EFFECTIVE AD-SERVING AND IMPROVED RETURNS
  - 252. INSIGHT, ROI ANALYSIS AND RESEARCH FOR DIGITAL ADVERTISING IN FINANCE
  - 253. EFFICIENT AD-SERVING FOR IMPROVING CLIENT'S ROI
- 50. MERCEDES BENZ, BANGALORE**
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  - 255. SIMULATION METHOD DEVELOPMENT TO PREDICT WELDING DISTORTIONS USING LS-DYNA
  - 256. SIMULATION OF CATALYST CATHODE LAYER OF A POLYMER ELECTROLYTE MEMBRANE FUEL CELL
  - 257. REAL-TIME SIMULATION OF FUEL CELL VEHICLE MODEL USING DSPACE MICROAUTOBOX AND CANOE
  - 258. NUMERICAL INVESTIGATION OF SURFACE TENSION EFFECTS ON DROPLET-WALL INTERACTIONS.
  - 259. MODEL ING AND SIMUL AT ION OF AUTOMOBILE HEAD LIGHT AUTO-LEVELING SYSTEM
  - 260. SUSPENSION BENCHMARKING AND GENERATION OF STATIC LOADS
  - 261. DEVELOPMENT OF TOOLS FOR POST PROCESSING OF FULL ENGINE NOISE ANALYSIS
  - 262. SEMI EMPIRICAL MODELING OF A COMPRESSOR & IMPLEMENTATION OF CUBIC EQUATION OF STATE INTO THERMO FLUID PRO
- 51. MU SIGMA BUSINESS SOLUTIONS, BANGALORE**
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  - 264. RETAIL ANALYTICS
  - 265. VALUE AT RISK
- 52. MYPARICHAY SERVICES PVT. LTD, BANGALORE**
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- 53. NATIONAL CENTRE FOR BIOLOGICAL SCIENCES, BANGALORE**
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  - 268. SIGNIFICANCE OF WNT SIGNALING IN PLANARIAN REGENERATION
  - 269. INTEGRIN SOCIAL NETWORK Role of ILK AT FOCAL ADHESION
  - 270. THE ROLE OF Auts2 IN SYNAPSE FORMATION
  - 271. EFFECT OF MGLUR ACTIVATION ON MICRORNA STABILITY AT SYNAPSE
- 54. NATIONAL ENTREPRENEURSHIP NETWORK, BANGALORE**
- 272. DATABASE MANAGEMENT & SOCIAL MEDIA MANAGEMENT WITH COMMUNICATION & RESOURCE BUREAU TEAM
  - 273. DETAILED ANALYSIS OF START-UPS AND THEIR IMPACT VIA SURVEYS.
  - 274. A PROJECT ON COMMUNITY MANAGEMENT
  - 275. E-LEARNING CONTENT DEVELOPMENT
  - 276. DEVELOPMENT OF INSTRUCTIONAL MATERIAL IN LEARNING CONTENT AND TECHNOLOGY PLATFORM FOR SKILL DEVELOPMENT NETWORK
- 55. NETAPP, BANGALORE**
- 277. SYSTEMS ENGINEERING
  - 278. HDFS SNAPSHOT FOR NETAPP-ENGINEERED HADOOP CLUSTER
  - 279. AUTOMATION FOR SERVER-SIDE FLASH WITH SNAPDRIVE
  - 280. DATA PROTECTION PERFORMANCE DATA COMMON REPOSITORY
  - 281. MANAGEMENT BY SLOS AND ZAPI CHAINING
  - 282. AN INTEROPERABILITY TESTING ON LINUX.
  - 283. JOURNALING BYTE DEVICE FOR STORAGE CLASS MEMORY
  - 284.** PARASWIFT: REPRODUCING WORKLOAD TRACES USING SWIFTTEST
  - 285. CONSISTENCY POINT PREDICTABLE PERFORMANCE.
  - 286. SECURE NETWORK DATA MANAGEMENT PROTOCOL
  - 287. STRIPE VERIFICATION AFTER WRITE
  - 288. SMAAP- SYSTEM MANAGER AS A PLATFORM
  - 289. FAULT INJECTION ANALYSIS OF THE NFS SERVER

- 290. OPTIMIZING PERFORMANCE OF A WEB-SCALE SEARCH APPLICATION
- 291. DEVELOPMENT OF A SYSTEM FOR DUPLICATE BURT(BUG REPORT) RETRIEVAL
- 292. BRINGING COMPUTATIONAL FRAMEWORK ON CDMI REPOSITORIES
- 56. NEXTGEN PMS, BANGALORE**
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  - 294. SITUATIONAL ANALYSIS OF CSR, NON-FINANCIAL REPORTING IN INDIA, GETTING CARBON POSITIVITY CERTIFICATE FOR A LEADING SPORTS FRANCHISE
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  - 298. FUNCTIONAL VERIFICATION OF PERIPHERAL COMPONENT INTERCONNECT-EXPRESS (PCI-e)
  - 299. PERFORMANCE VERIFICATION AND INFRASTRUCTURE DEVELOPMENT FOR TEGRA SOCs
  - 300. CORESIGHTTM VERIFICATION AT THE SOC LEVEL
  - 301. IMPROVING THE EFFICIENCY OF TESTING USING JTAG EXTRACTION
  - 302. FUNCTIONAL VERIFICATION OF PCI EXPRESS TRANSACTION LAYER
  - 303. JTAG-EXTRACTION
  - 304. LOW POWER DESIGN VERIFICATION
- 58. ORACLE FINANCIAL SERVICES SOFTWARE LTD, BANGALORE**
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  - 306. FLEXCUBE SUPPORT ACTIVITIES
  - 307. FLEXCUBE SUPPORT
  - 308. DEVELOPMENT OF SAMPLE APPLICATION FOR REVELEUS INFRASTRUCTURE INSTALLATION
  - 309. ORACLE FLEXCUBE OPEN DEVELOPMENT TOOLS
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  - 310. DETECTION OF DUPLICATE BUGS
  - 311. MONITORING ORACLE HTTP SERVER ON ENTERPRISE MANAGER GRID CONTROL
  - 312. PARFAIT STATIC CODE ANALYSIS TOOL
  - 313. ENHANCEMENT OF AUTOMATION TOOL
  - 314. BIG DATA APPLIANCE
  - 315. IDENTITY MANAGEMENT
  - 316. DATABASE PLUGIN ENHANCEMENTS FOR ORACLE ENTERPRISE MANAGER
  - 317. ENHANCEMENT OF THE BUILD VERIFICATION TOOL
  - 318. XML FILE AUDIT COLLECTION PLUGIN FOR ORACLE AUDIT VAULT AND DATABASE FIREWALL
  - 319. OPTIMIZING ORACLE B2B & HEALTHCARE
  - 320. RUNNING ANALYTICS ON DATA AVIALABLE IN ORACLE WEBCENTER CONTENT AND PROVIDING A GRAPHICAL USER INTERFACE FOR DISPLAYING ANALYTICAL RESULTS
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  - 324. BUG FIXES AND FEATURE DEVELOPMENT IN AN UPCOMING GAME OF PLAYDOM.
  - 325. 326. THE REQUEST FLOW: SEND, STORE AND RETRIEVE
  - 326. 327. STUDY OF FLASCC COMPILER TO BRING C++ SOURCE CODE TO WEB
- 62. PRACTO TECHNOLOGIES PVT. LTD, BANGALORE**
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  - 328. OPERATIONS AND MANAGEMENT
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  - 331. (PERFORMANCE EVALUATION BASED RATING OF INDIAN EQUITY MUTUAL FUNDS)

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 334. DEMOGRAPHIC ANALYSIS FOR A RETAIL SUPERMARKET CHAIN  
 335. RUBIN HAS BEEN AN ASSET AS AN INTERN AT ANALOG DEVICES
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 338. REVAMPING SCDO APPLICATION USER INTERFACE  
 339. FEATURE ADDITION TO AGENCY ESERVICES  
 340. BMAS OFFLOAD MANAGEMENT  
 341. TESTING AND SCOPE OF MATERIALS MANAGER  
 342. CREW MANAGER ADVANCED SUPPORT  
 343. GLS DATA ENHANCEMENT & GCG TESTER PAGES & SOA TEST CASES  
 344. DEVELOPING JUNIT TESTCASES FOR GLOBAL DEALS-BATCH PROJECT  
 345. DEVELOPMENT AND INTEGRATION OF APPLICATIONS WITH SABRE RED WORK SPACE  
 346. COMMERCIAL INTELLIGENCE  
 347. LEARNING THE TECHNOLOGIES OF FARES MANAGER  
 348. USER INTERFACE DEVELOPMENT AND MAINTENANCE FOR TEAM GLOBAL HOTEL  
 349. IMPLEMENTING SOCIAL LOGIN IN TRAVELOCITY  
 350. SERVICE OPERATIONS SERVERS MANAGEMENT PORTAL  
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 352. APPLICATION OF SOLR SEARCH ENGINE TO CUSTOMER ACCESS INTERFACE  
 353. DEVELOPMENT AND INTEGRATION OF APPLICATIONS WITH SABRE RED WORK SPACE  
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 355. GUI MOCKUPS FOR THE HOTEL RFP
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 357. DEVELOPMENT OF ANDROID BASED ENTERPRISE MOBILITY SOLUTIONS  
 358. GRAPH VISUALIZATION OF GENOME  
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 360. SAP BLUE  
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 362. FIXED TIME DEPOSIT AUDITOR A TESTING TOOL  
 363. TESTING USER INTERFACE AND DEVELOPING ALGORITHMS FOR BYDESIGN – CRM SERVICES TEAM  
 364. FIXED TIME DEPOSIT AUDITOR- A TESTING TOOL  
 365. DEBUGGING SCENARIOS OF SALES ORDER FOR BYD- CRM SALES TEAM  
 366. HYBRID APP DEVELOPMENT FOR THE IPHONE
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 374. DESIGN AND DEVELOPMENT OF REPAIR AND MAINTENANCE SYSTEM FOR FOUR YEARS OF OWNERSHIP

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- 138. WEIR ENGINEERING SERVICES(INDIA) LTD, HUBLI**
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640. LEAN IMPLEMENTATION IN GGC FOR BETTER PRODUCTIVITY & OPTIMIZATION OF INPROCESS

- WORK PROCEDURES THROUGH EXCEL VBA
641. IMPROVEMENT OF KITTING AREA FOR BETTER PRODUCTIVITY & GOODS CONFIRMATION RECEIPT GENERATION FOR AUDIT PURPOSE
642. INCREASING PRODUCTIVITY IN DISPATCH & SALES
643. OPTIMIZATION OF IN PROCESS WORK PROCEDURES THROUGH EXCEL VBA
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644. DEVELOPMENT AND MAINTENANCE OF SYSTEMS RELATED TO INBOUND TRANSPORTATION AT AMAZON
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646. AMP BASED CONTACT SWEEPER
647. DEVELOPMENT OF GOVERNMENT COMPLIANCE PLATFORM
648. ADVANCED DEW DASHBOARDS AND DATACUBE REPORTS
649. ENHANCEMENTS IN EXISTING CHAT INFRASTRUCTURE
650. SCORE SERVICE
651. TRANSPORTATION MESSAGE PROCESSING PLATFORM VISIBILITY
652. IMPLEMENTATION OF RETROCHARGE WORKFLOW
653. DATA LOADER FROM QUEUES TO REDSHIFT
654. DEVELOPMENT OF RECEIVE REMOVALS WEB UI
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658. SERVICE REVIEWS WIDGET ON SDP PRICE CALCULATOR UDP MIGRATION OF SDP
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661. MAP VISUALISATION FOR TRANSIT TIMES
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664. EVALUATION OF CLIENT SIDE TEMPLATING LANGUAGES ON A MULTI-PURPOSE WEBSITE RENDERING ENGINE
665. TO DEVELOP A WAY, IN WHICH N NUMBER OF JOBS CAN BE SCHEDULED
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887. REDUCTION OF LEAD TIME BY IMPROVING LINE BALANCING ON TRACTOR ASSEMBLY LINE
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889. R.C.C DESIGN OF COMMERCIAL AND RESIDENTIAL BUILDINGS.
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890. DESIGN OF FIXTURE FOR GRINDING A CERAMIC RADOME AND STUDY OF GRINDING PARAMETERS.
891. INCREASING THE CAPACITY OF CNC FLOW FORMING MACHINE
892. INCREASING THE CAPACITY OF CNC FLOW FORMING MACHINE
- 219. ADOBE, NOIDA**
893. ACCOUNT ADMINISTRATION FOR ADOBE TARGET
894. UI REFINEMENT FOR WEBINARS USING AEM
- 220. NAVYUG INFO SOLUTION, NOIDA**
895. MEDICINE MAN
- 221. PYRAMID IT CONSULTING, NOIDA**
896. USER INTERFACE DESIGN AND R and D FOR PYRAMIDS WEB APPLICATION

- 222. SYNOPSIS, NOIDA**  
897. STUDY AND ANALYSIS OF SINGLE PORT SRAM IN 28 NANOMETER TECHNOLOGY
- 223. BITS PILANI PROJECT OFFICE (SHAPOORJI & PALLONJI CO. LTD.), PILANI**  
898. PROJECT PARIVARTAN & DETAILS
- 224. CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE \*, PILANI**  
899. INTRODUCTION TO RF MEMS BASED BIOSENSORS AND DESIGNING OF AN RF LC RESONATOR  
900. TEMPRATURE CONTROLLER FOR A MICRO HOTPLATE BASED GAS SENSOR  
901. HAND GESTURE RECOGNITION USING AN ANDROID DEVICE  
902. FABRICATION AND CHARACTERIZATION OF A PCR MICROFLUIDIC DEVICE  
903. SHM APPLICATIONS DEPLOYMENT USING NI WSN KIT  
904. SIGN LANGUAGE RECOGNITION
- 225. AVAYA INDIA, PUNE**  
905. CLOUD BASED PROTOTYPE APPLICATION FOR CONTACT CENTER MONITORING  
906. AUTOMATION TESTING FOR OUTBOUND DIALER SOLUTION  
907. DEVELOPING A REAL TIME MONITORING SYSTEM ANDROID APP FOR PBX
- 226. BHARAT FORGE LTD, PUNE**  
908. DEVELOPMENT OF A VALUE STREAM MAPPING MODEL FOR IMPLEMENTATION IN MCD – II.  
909. IMPROVING OEE BY IDENTIFYING & REDUCING HIDDEN TIME LOSSES IN CRANKSHAFT MACHINING LINE  
910. SCRAP REDUCTION AND PREVENTION ACROSS ALL 4 CRANKSHAFT MACHINING LINES BY UTILIZING QUALITY CONTROL TOOLS WITH A FOCUS ON REDUCING PRODUCTION COST AND IMPROVING PRODUCT QUALITY LEVELS.
- 227. CREDIT SUISSE, PUNE**  
911. STRUCTURED TRADE REVIEWS & REPORTING  
912. UNLINKED COUNTERPARTY EXPOSURE MAPPING AT CREDIT SUISSE  
913. SENSITIVITY AND TRADES RECONCILIATION  
914. IMPLEMENTATION OF BASEL III REGULATORY REFORMS INTO CREDIT SUISSE RISK MODEL  
915. EMERGING MARKETS DAILY PROCESS AUTOMATION AND ANALYSIS  
916. IMPLEMENTATION OF BASEL III REGULATORY REFORMS INTO CREDIT SUISSE RISK MODEL  
917. RISK DATA ANALYSIS AND CONTROL  
918. PROFIT AND LOSS REPORTING FOR STOCK LENDING AND BORROWING BUSINESS  
919. RISK DATA ANALYSIS AND CONTROL  
920. FOBO SPECIALIZATION AND PL REPORTING  
921. GENERAL LEDGER RECONCILIATION SYSTEMS  
922. STRUCTURE TRADE REVIEW (GFX TRADES) & CREDIT PRICE TESTING  
923. DAILY P&L VALIDATION AND RECONCILIATION  
924. RECONCILIATION OF TRADE AND POSITION FEEDS  
925. RISK FACTOR IDENTIFICATION - MARKET DATA DEPENDENCY APPROACH FOR MARKET RISK QUALITY AND CONTROL IN CREDIT SUISSE  
926. PRICE TESTING OF CREDIT DERIVATIVES  
927. CREDIT RISK EXPOSURE HANDLING  
928. MARKET RISK SYSTEMS RELEASE CYCLE  
929. P&L VALIDATION OF SYSTEMIC MARKET-MAKING GROUP  
930. PRODUCT CONTROL- UNDERSTANDING THE ROLES AND RESPONSIBILITIES AND FUNCTIONS OF LINE PC  
931. PRICE TESTING OF DERIVATIVE PRODUCTS  
932. STRATEGIC RISK PROGRAM AT RISK ANALYTICS AND REPORTING DEPARTMENT  
933. STRUCTURED TRADE REVIEWS  
934. PRICE TESTING OF DERIVATIVE PRODUCTS  
935. CREDIT RISK: INSIGHT SERVER IMPROVEMENTS  
936. RISK MEASUREMENT AND MANAGEMENT  
937. DATA MANAGMENT AND CONTROL (DMC)  
938. MARKET RISK CALCULATION IN CREDIT SUISSE  
939. AUTOMATION OF 'PRODUCT CONTROL CERTIFICATIONS' AND 'OE CODE ROLL UP

- 228. DIVGI WARNER (P) LIMITED, PUNE**
- 940. ANALYSIS OF DIVGI GROUP COMPANIES' COMPETENCIES
  - 941. INTERNATIONAL MARKET WATCH FOR BUSINESS DEVELOPMENT
  - 942. COMPETITIVENESS OF INDIAN MANUFACTURING: FINDINGS OF THE THIRD NATIONAL MANUFACTURING SURVEY
- 229. EATON TECHNOLOGIES, PUNE**
- 943. RELIABILITY ANALYSIS OF VARIOUS INTEGRATED COCKPIT CONTROL PANELS OF AN AIRCRAFT
  - 944. DESIGN CALCULATORS TO FIND THE DIMENSIONS OF ACTUATOR TEST STAND'S MAJOR COMPONENTS
- 230. FAB, PUNE**
- 945. FUNCTIONALITIES RELATED TO ORDER PLACEMENT ON HTTP://FAB.COM AND <http://eu.fab.com>
  - 946. FAB.COM'S SEARCH PROJECT
- 231. ITW INDIA LTD, PUNE**
- 947. DESIGNING OF DURABILITY FIXTURE FOR HEADREST BEZEL
- 232. LOREAL INDIA PVT. LTD, PUNE**
- 948. RECIPE IMPLEMENTATION ON MANUFACTURING SKIDS
  - 949. RECIPE IMPLEMENTATION ON MANUFACTURING SKIDS
- 233. LSI RESEARCH & DEVELOPMENT PVT. LTD, PUNE**
- 950. PHYSICAL IMPLEMENTATION OF ASIC
  - 951. PHYSICAL VERIFICATION OF 28NM NETWORKING DOMAIN DESIGNS
  - 952. PORTING OF STORAGE CONTROLLER RTL DESIGN ON ALTERA FPGAs.
  - 953. PHYSICAL DESIGN FLOW AND POWER ANALYSIS
  - 954. PHYSICAL DESIGN (BACKEND)
  - 955. PHYSICAL DESIGN AND STATIC TIMING ANALYSIS
  - 956. PHYSICAL DESIGN OF BLOCKS OF A NETWORK PROCESSOR
  - 957. TESTING & VERIFICATION in VLSI DFT-DESIGN FOR TESTABILITY
- 234. LUPIN RESEARCH PARK, PUNE**
- 958. DESIGN, DEVELOPMENT AND IN VITRO EVALUATION OF EXTENDED RELEASE FORMULATION OF SEMI SYNTHETIC MACROLIDE ANTIBIOTIC AGENT.
  - 959. IMPACT OF FORMULATION VARIABLES AND PROCESS VARIABLES ON THE RELEASE PROFILE OF MODIFIED RELEASE TABLET OF CANDIDATE DRUG.
- 235. MEGATECH POWER EQUIPMENTS PVT. LTD, PUNE**
- 960. 1.5 KW ZVS BATTERY CHARGER
- 236. NVIDIA GRAPHICS PVT. LTD, PUNE**
- 961. A REPORT ON PERFORMANCE OPTIMIZATION
  - 962. A REPORT ON OVERVIEW OF VARIOUS TOOLS FOR TEGRA CHIPS
  - 963. SM2 SOFTWARE ENHANCEMENT
- 237. PERSISTENT SYSTEMS LIMITED, PUNE**
- 964. DEALSMINER- SEARCH APPLICATION USING EXALEAD
  - 965. ADDRESS BOOK ENHANCEMENT OF A WEB APPLICATION
  - 966. CARRIER-CLASS EMAIL MESSAGING SOLUTION
- 238. REFLEXIS SYSTEMS INDIA PVT LTD, PUNE**
- 967. REFLEXIS STORE PULSE
  - 968. REFLEXIS TASK MANAGEMENT
  - 969. REFLEXIS TASK MANAGEMENT
  - 970. NEW FEATURES IN BROADCAST MESSAGE FOR HEADER AND CALENDAR BROADCAST.
  - 971. MONITORING FILES PROCESSED BY HUB ( USING JAVA, JSP, SERVLETS and JAVASCRIPT ) AND RESOLUTION OF ISSUES ENCOUNTERED IN DRS & DJ
  - 972. REFLEXIS TASK MANAGER DEVELOPMENT
  - 973. ASYNCHRONOUS DATABASE SYNCHRONIZATION
- 239. SKF INDIA LTD, PUNE**
- 974. BOTTLENECK REMOVAL AT RECEIVING INSPECTION.
  - 975. REDUCTION OF VIBRATION SCRAP LEVEL OF DGBB CHANEL BY 50%
  - 976. TOOLING AND SPARE MANAGEMENT OF CHANNEL HUB-1T
  - 977. NET OUTPUT IMPROVEMENT OF CHANNEL HUB-1T

978. STANDARD TEMPLATE CALCULATION FOR BEARING MANUFACTURING CHANNEL WITHOUT CONSIDERING ANY LOSSES AND STOPPAGES
979. DIRT ANALYSIS OF CH-7 & CH-8 USING SIX SIGMA TOOLS.
980. BOTTLENECK REMOVAL AT RECEIVING INSPECTION.
- 240. SKODA AUTO INDIA PVT. LTD, PUNE**
981. ASSESSMENT FOR ACCESSORIES AND MERCHANDISE BUSINESS IN INDIA FOR SKODA AUTO INDIA PVT. LTD.
982. RESTRUCTURING OF ETKA SUPPORT WEB
983. MY DMS
984. DEALER STOCK OPTIMIZATION"
985. PROCESS BENCHMARKING OF THE SPARE PART BUSINESS
986. GUIDELINES TO HANDLE TOP PRODUCT TECHNICAL COMPLAINTS
987. DISS TICKET REDUCTION AND PENDING VEHICLES REDUCTION
- 241. SOLAIREDIRECT ENERGY INDIA PVT. LTD, PUNE**
988. DEVELOPMENT OF 5MW SOLAR PV PLANT IN RAJASTHAN
989. DEVELOPMENT OF 5MW SOLAR PV POWER PLANT IN RAJASTHAN
- 242. SPICER INDIA LTD, PUNE**
990. BANJO BEAM MACHINING, PROCESS COMMISSIONING AND PRODUCTIONISATION
991. HEIJUNKA PRODUCTION SYSTEM
992. WARRANTY DATA ANALYSIS
- 243. TATA AUTOCOMP SYSTEMS LTD, PUNE**
993. COST REDUCTION THROUGH VENDOR DEVELOPMENT AND LOCALIZATION
994. COST REDUCTION OF ECS ASSEMBLIES DONE AT CONTRACTOR M/S TRIMURTI SERVICES
995. SUPPLIER DEVELOPMENT AND PRODUCT DEVELOPMENT FOR CHILD PARTS OF JCB HUB
996. DEVELOPMENT AND MARKETTING OF E-LEARNING
997. TO CONDUCT MARKET STUDY AND PRODUCT ANALYSIS FOR INTRODUCTION
- 244. TATA MOTORS, PUNE**
998. DESIGN OF JIGS AND FIXTURES
- 245. TENSILICA, PUNE**
999. WAVE COMPRE CONTROL
1000. GRID REGISTER VIEW FOR XTENSA EXPLORER
- 246. CENTRAL BUILDING RESEARCH INSTITUTE, ROORKEE**
1001. DEVELOPMENT OF CONDUCTIVE CONCRETE FOR THE CATHODIC PROTECTION OF RC STRUCTURES
- 1002.** NUMERICAL MODELLING OF KONARK SUN TEMPLE
- 247. SPICER INDIA LTD, SATARA**
1003. GREASE CONSUMPTION OPTIMIZATION THROUGH IMPLEMENTATION OF QUANTIFIED GREASE DISPENSING SYSTEM
- 248. HISP, PUNE**
1004. DEVELOPMENT AND IMPLEMENTATION OF HOSPITAL INFORMATION SYTEM IN HIMACHAL PRADESH
1005. DISTRICT HEALTH INFORMATION SYSTEM
1006. CAPACITY BUILDING OF TEACHERS IN SHIMLA AND HEALTH WORKERS IN DISTRICT KANGRA, HIMACHAL PRADESH
- 249. INSEAD BUSINESS SCHOOL, SINGAPORE**
1007. NULL
- 250. DIVGI WARNER (P) LTD, SIRSI**
1008. IN-HOUSE PPM REDUCTION; DESIGN OF KANBAN CARDS; SUPPLIER PPM REDUCTION.
1009. VALUE STREAM MAPPING-RING GEAR KOREA.
- 251. ULTRATECH CEMENT (ANDHRAPRADESH CEMENT WORKS), TADIPATRI**
1010. HEAT AND MASS BALANCE CALCULATIONS AND STUDY ON PROCESS CONTROL OF KILN SECTION
1011. WIRELESS IMPLEMENTATION OF PROFIBUS PROTOCOL
1012. CONSTRUCTION OF TURBINE GENERATOR BUILDING AND PRECAST STRUCTURES IN THE SWITCH YARD.
1013. CONSTRUCTION OF WAGON TIPPLER COMPLEX



- 252. CENTRE FOR DEVELOPMENT OF IMAGING TECHNOLOGY (C-DIT), TRIVANDRUM**  
 1014. WEBSITE DEVELOPMENT OF SSDP (STATE SKILL DEVELOPMENT PROGRAM), KERALA FOR C-DIT, TRIVANDRUM  
 1015. UNIVERSITY AUTOMATION SYSTEM IN JAVA
- 253. SUNTEC BUSINESS SOLUTIONS PVT. LTD, TRIVANDRUM**  
 1016. TBMS AND TESTING IN WIFI PROJECT  
 1017. DP
- 254. DECCAN FINE CHEMICALS (I) PVT. LTD, TUNI**  
 1018. UTILITIES MANAGEMENT  
 1019. SAFETY ISSUES AND CONCERNS AT PROCESS DEVELOPMENT LABORATORY
- 255. HINDUSTAN ZINC LIMITED, CHITTORGARH \* , UDAIPUR**  
 1020. MAINTAINING THE THERMAL BALANCE OF SHELL AND TUBE HEAT EXCHANGER 4 IN SULPHURIC ACID PLANT” (HYDRO 1- ROASTER AND ACID PLANT)  
 1021. ADAPTION OF GECO PROCESS AT EFFLUENT TREATMENT PLANT
- 256. CYPRESS SEMICONDUCTOR, SAN JOSE, CALIFORNIA, USA**  
 1022. QUAD DATA RATE (QDR) SYNCHRONOUS STATIC RANDOM ACCESS MEMORIES (SRAMS)
- 257. DREAMWORKS ANIMATION, LOS ANGELES, USA**  
 1023. DEVELOPMENT AND SUPPORT FOR THE SURFACING DEPARTMENT ON THE SHOW “PENGUINS OF MADAGASCAR”  
 1024. DEVELOPMENT OF TOOLS AND TECHNIQUES ON MR. PEABODY AND SHERMAN AND SUPPORT AS LIGHTING TECHNICAL DIRECTOR
- 258. POCKET GEMS, USA**  
 1025. MOBILE ENGINEERING AT POCKET GEMS
- 259. FLAREUM TECHNOLOGIES PRIVATE LIMITED, VALSAD**  
 1026. DESIGN & FABRICATION OF SIMPLE LOW-COST SOLAR PARABOLIC COOKER AND AN INTRODUCTION TO PATENT RESEARCH AND ANALYTICS  
 1027. DESIGN & FABRICATION OF SOLAR PARABOLIC CONCENTRATORS AND INTRODUCTION TO PATENT RESEARCH
- 260. JSW STEEL LTD, VIJAYANAGAR WORKS, VIJAYNAGAR**  
 1028. BAR BENDING SCHEDULE OF ELEVATED SLUDGE THICKENER AT BENEFICIATION PLANT-II By  
 1029. STUDY OF SHAPE AND CROWN EVOLUTION DURING THE HOT ROLLING OF THE STEEL STRIP AND MODELLING OF HOT ROLLED STRIP SHAPE AND PROFILE  
 1030. STUDY AND ANALYSIS OF SURFACE DEFECTS IN HOT ROLLED STEEL STRIPS  
 1031. REDUCTION IN SCAN TIME OF PLC3 USED IN BLAST FURNACE 1 OF JSW STEEL  
 1032. IMPACT OF COAL PROPERTIES ON COKE MAKING PROCESS AND COKE QUALITY  
 1033. BAR BENDING SCHEDULE OF ELEVATED SLUDGE THICKENER AT BENEFICIATION PLANT-II
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## LIST OF PROJECT ASSIGNMENTS FOR FIRST SEMESTER 2013-2014

- 1. SKODA AUTO INDIA PVT. LTD, AURANGABAD**
1. ASSIGNMENTS DONE IN THE QUALITY DEPARTMENT AND ON THE PRODUCTION SHOP FLOOR
  2. FIELD RELATED ISSUES BY SURVEYS AND TROUBLE-SHOOTING AND IMPLEMENTING KEFA NOMENCLATURE AT CHECKPOINTS
  3. IMPLEMENTATION OF LEAN MANUFACTURING IN SKODA PLANT& PREPARATION OF TROUBLE-SHOOTER GUIDE FOR FIELD RELATED PROBLEMS
  4. IMPLEMENTATION OF LEAN MANUFACTURING IN SKODA PLANT
- 2. ADITYA AUTO PRODUCTS & ENGG (I) .P.LTD, BANGALORE**
5. DESIGN AND ANALYSIS OF SWITCH RELUCTANCE MOTOR & PROTOTYPE DEVELOPMENT OF MXX (PMDC) MOTOR
  6. SWITCHED RELUCTANCE MOTOR DRIVE CIRCUIT INFLUENCE ON EFFICIENCY AND DRIVABILITY PERFORMANCE & COMPARISION OF DIFFERENT MOTOR DESIGNS IN THE HYBRID ELECTRIC VEHICLE APPLICATIONS
  7. TO ANALYZE THE PRESENT SITUATION OF ALL THE ASSEMBLY LINES AND SUGGEST REMEDIES TO REDUCE THE WASTAGE AND INCREASE PRODUCTIVITY & TO MAKE A LAYOUT DESIGN OF THE NEW WAREHOUSE AND SUGGEST METHODS FOR MATERIAL HANDLING ALONG WITH KANBAN SYSTEM.
  8. PROTOTYPE DEVELOPMENT OF MXX (PMDC) MOTOR & COMPARISION OF PERFORMANCE OF INDUCTION MOTOR & SWITCHED RELUCTANCE MOTOR FOR AN A/C COMPRESSOR

3. **ALTAIR ENGINEERING INDIA PVT. LTD, BANGALORE**
  9. DEVELOPMENT, TESTING AND DEPLOYMENT OF A SOAP WRAPPER FOR REST-FUL WEB SERVICES
  10. GENERATING SUPER ELEMENT SETUP & HOOD AUTOMATION ANALYSIS
  11. AUTOMATE CAE WELD CREATION MODELING USING CONNECTOR CREATION AND REALIZATION TECHNIQUE
  12. AUTOMATED LEAF SPRING DESIGN
  13. TESTING AND AUTOMATED TESTING OF SIMULATION CLOUD SUITE WEB APPLICATION USING TESTNG
  14. PROCESS AUTOMATIONS, ENHANCEMENT OF SAMCEF SOLVER IN HYPERMESH AND ACGT PLUGIN DEVELOPMENT
  15. RESULTS VISUALIZATION SERVICE
  16. AUTOMATION FRAMEWORK DEVELOPMENT FOR PBS: A WORKLOAD MANAGEMENT SYSTEM
4. **AMAZON DEVELOPMENT CENTRE, BANGALORE**
  17. VARIATIONS DASHBOARD AND DPX DEBUGGER
  18. UI AND BACKEND ABUSE PAGES IMPROVEMENT
  19. OPTIMIZATION OF CIC WEBSITE PAGES
  20. CREATION OF PERMANENT LINKS AND DESIGN OF TEMPLATE AND IMPROVEMENTS IN THE WORKFLOW OF NUDGE EMAIL CAMPAIGN
  21. MAINTENANCE SYSTEM CREATION, CODE COVERAGE IMPROVEMENT
  22. CREATION OF REPORTING MODULES & DEVELOPER CONSOLIDATION OF NUDGE EMAILS
  23. PRICE-SELECTION-BENCHMARKING
  24. PMETS FOR DATA CAPTURE REPORTS, FRC REPORTS AND ACCURACY IMPROVEMENTS FOR GAME CIRCLE SDK DETECTION TEST.
  25. SELECTION INGESTION USING MAGENTO BASED NON-CRAWLING MECHANISM
  26. BUILDING POLICING SYSTEM FOR JUNGLEEÁS BUSINESSES NEARBY ON INVESTIGATOR WORKBENCH
  27. ABUSE PREVENTION SERVICE NEW COUNTRY LAUNCH MDS TO SAS DATA CONVERSION
  28. UPGRADATION OF APACHE TIKA AND PARALLEL IMPORT OF DATA FROM S3
  29. OPINION SUMMARIZATION USING MINING AND SOCIAL WIDGET ON STORES PAGE
  30. DEVELOPMENT OF TOOLS IN CATEGORY CONFIGURATION MANAGER
  31. DEVELOPMENT OF LOOKUP LIST FEATURE FOR TRANSACTION RISK MANAGEMENT & ONLINE FRAUD DETECTION
  32. DEMAND SPIKE MONITOR MACHINE LEARNING
  33. TOWARDS INCORPORATING SUPERVISED LEARNING FRAMEWORK IN PANTHER
5. **ANALOG DEVICES, BANGALORE**
  34. DESIGN VERIFICATION IN CUSTOMSIM XA
  35. EMBEDDED LINUX/ANDROID PORTING
  36. VERIFICATION OF BLACKFIN DSP
6. **ARM, BANGALORE**
  37. AUTOMATION FRAMEWORK FOR SYSTEM-ON-CHIP VERIFICATION
  38. SYSTEM LEVEL COVERAGE INSTRUMENTATION IN EMULATION AND FPGA
  39. STATIC TIMING CORRELATION ANALYSIS
  40. IP VALIDATION AND MODELING
  41. AVK RVCT TO LLVM TOOLCHAIN TRANSITION
  42. VALIDATION OF ARM V8 64 BIT ARCHITECTURE
  43. SOFTWARE TESTING OF MEMORY MODEL GENERATORS FOR DFT TOOLS
7. **ARUBA, BANGALORE**
  44. AUTOMATION OF DHCP SNOOPING
  45. BACKEND MONITORING MODULE ENHANCEMENT & COMPARATIVE ANALYSIS OF EIGRP AND OSPF
  46. PER DEFINITIONS FOR BOUNDARY SCANNED PERIPHERALS
  47. NEW HEALTH CHECKS FOR CLEARPASS ONGUARD AGENT
  48. FEATURES AND BUG FIXES OF 6.4 CONTROLLER RELEASE
  49. AUTOMATION OF CAPTIVE PORTAL PERFORMANCE
8. **AZUL SYSTEMS, BANGALORE**
  50. DEVELOPING TEST CASES FOR JAVA VIRTUAL MACHINE TOOLS INTERFACE.
9. **BASICNEEDS UK, BANGALORE**
  51. QUALITY ASSURANCE AND IMPACT ASSESSMENT
  52. MARKETING RESEARCH AND ANALYSIS FOR BASICNEEDS FINANCES
10. **BECKMAN COULTER, BANGALORE**
  53. BASICS OF DEVELOPMENT OF DRIED DOWN DIAGNOSTIC REAGENTS

11. **BOSCH, BANGALORE**
  54. EMISSION REDUCTION USING EXHAUST GAS RECIRCULATION (EGR)
  55. EMISSION REDUCTION IN INDIAN DIESEL LOW PRICE VEHICLE SEGMENT
12. **BROADCOM INDIA PVT LTD, BANGALORE**
  56. VERIFICATION OF REGISTER TEST CASES OF THE MAC SUB-LAYER
  57. PERFORMANCE ANALYSIS OF SATELLITE IMPAIRMENTS
  58. PORTING OF GINGER BREAD (ANDROID OS) ON BROADCOM SOC PLATFORM
  59. AUTOMATION OF POWER ON/OFF AND ANDROID MONKEY TESTING AND BUILDING TEST CASES FOR UIAUTOMATOR
  60. WORKING OF OPUS AUDIO CODEC AND USING OPUS TOOLS TO ENCODE AND DECODE AUDIO FILES.
  61. DESIGN VERIFICATION OF SYSTEM ON CHIP (SOC)
  62. POWER ESTIMATION AND OPTIMISATION OF WLAN VLSI CIRCUITS
  63. VERIFICATION OF V3D GRAPHIC IP AND PERFORMANCE MEASUREMENT
  64. APPLICATION PROGRAMING FOR SYNOPSIS VERDI
  65. OPTIMIZATION OF AUDIO CODEC ALGORITHMS
  66. VERIFICATION OF INGRESS AND EGRESS PIPELINE IN CHIP
  67. COMPREHENSIVE SPYGLASS CHECKS TO ENABLE HIGH QUALITY, LOW POWER DESIGNS
  68. VERIFICATION OF FUNCTIONAL MONITOR OF AXI INTERFACE
  69. FUEL-GUAGE TEST FOR THE ACCURATE MEASUREMENT OF ANDROID DEVICE-BATTERY CAPACITY
  70. VERIFYING THE INTEGRATION OF POWER MANAGEMENT UNIT (PMU) AND ONE TIME PROGRAMABLE (OTP) MEMORY
  71. FUNCTIONAL VERIFICATION OF TRAFFIC MANAGER(ETHERNET SWITCHES)
  72. DESIGN VALIDATION OF VIDEO ENCODER HARDWARE ACCELERATOR BLOCK
  73. VERIFICATION OF INGRESS PIPELINE IN CHIP
  74. DESIGN FOR TEST FOR ARM AND RX4 CORES OF THE CHIP BCM4349
  75. HARDWARE EMULATION OF SYSTEM ON CHIP
13. **CIREL SYSTEMS, BANGALORE**
  76. DESIGNING A DIGITALLY CONTROLLED BUCK CONVERTER USING Z-DOMAIN MODELING
  77. BUCK CONVERTER CPM
14. **CISCO SYSTEMS (INDIA) PVT. LTD, BANGALORE**
  78. CONVERSION OF QOS COMMANDS MLS TO MQC GETTING PERFORMANCE ON AN ARM MOTHERBOARD CCA BATCH SCHEDULER: AN INTELLIGENT TOOL
  79. IMPLEMENTING THE COMMAND LINE INTERFACE IN ME3600 to show platform qos queue-depth
  80. DYNAMIC ACCESS POINT SUPPORT
  81. ANALYSIS AND TESTING OF THE EXTERNAL USER INTERFACE OF VSM CARD FROM CLI AND XML PERSPECTIVE
  82. URL LEARNING FEATURE FOR WIDE AREA APPLICATION SERVICES
  83. TESTING OF MDS AND NEXUS SWITCHES
15. **COSMIC CIRCUITS PVT. LTD, BANGALORE**
  84. AMBA BASED SYSTEM FOR HIGH SPEED IP VALIDATION
  85. DESIGN OF FPGA EMULATION PLATFORM
  86. LOW DROP-OUT (LDO) VOLTAGE REGULATOR AUTOMATION
16. **CSIR-NATIONAL AEROSPACE LABORATORIES, BANGALORE**
  87. NANOCRYSTALLINE Ni-W-P/SiC ELECTROLESS COMPOSITE COATINGS
  88. ELECTROLESS DEPOSITION OF NICKEL ALLOY ON CARBON FIBER FOR EMI SHIELDING
  89. SURFACE ENHANCED RAMAN SPECTROSCOPY ON CHEMICALLY TEXTURED SILICON SURFACES
  90. MODELING AND ANALYSIS OF PIEZOELECTRIC FIBER REINFORCED NANO COMPOSITE
  91. FABRICATION AND CHARACTERIZATION OF COBALT NANOWIRES PREPARED USING POROUS ANODIC ALUMINA TEMPLATE ASSISTED GROWTH TECHNIQUE
17. **CSR , BANGALORE**
  92. WINDOWS 8 APP DEVELOPMENT FOR BLUETOOTH SMART DEVICES
  93. DEVELOPMENT FOR THE VIBEHUB NETWORK AUDIO PLATFORM
18. **DERRICK PETROLEUM, BANGALORE**
  94. BUSINESS ANALYSIS OF THE UPSTREAM OIL AND GAS INDUSTRY
19. **EBAY INDIA DEVELOPMENT CENTRE, BANGALORE**
  95. AUTOMATION OF CUSTOMER TO CUSTOMER METRICS REPORT AND BAD BUYING EXPERIENCE REPORT
  96. DEVELOPING A COMPREHENSIVE PERFORMANCE-METRICS-DASHBOARD FOR EBAY'S SITE
  97. SMS INTERMEDIATION AND STORES
  98. SELL IT FOR ME BUSINESS ENGINE

- 99. DATA VISUALIZATION FOR A/B TESTING USING TABLEAU
- 100. END TO END SERVICE VISUALIZATION PROPOSAL
- 101. DEVELOPING DASHBOARDS FOR HEALTH MONITORING OF EBAY LINKS AND MODULES
- 102. UNIVERSAL RATING ENGINE A PRICING SUITE FOR EBAY
- 103. MUTLI-TIER LATENCY REPORTER FOR SOA, GINGER AND API
- 20. **EMC, BANGALORE**
  - 104. LUSTRE FILE SYSTEM: BENCHMARKING AND TUNING
  - 105. COLLABORATION SOLUTIONS ON NEXT GENERATION INFORMATION SERVER (NGIS)
  - 106. DEVELOP COLLABORATIVE SOLUTIONS FOR NEXT GENERATION INFORMATION SERVER
  - 107. BUILDING COLLABORATION SOLUTION ON NEXT GENERATION INFORMATION SERVER (NGIS)
  - 108. DESIGN AND IMPLEMENTATION OF ALERTING SUB-SYSTEM FOR VPLEX
- 21. **ERNST & YOUNG PVT. LTD, BANGALORE**
  - 109. PREDICTIVE DATA MODELLING, WIPRO PROVISIONING, E-RETAIL BENCHMARKING
  - 110. PROVISIONING AUTOMATION, REVIEW ADVISORY AND COMPUTER AIDED AUDIT TECHNIQUE
  - 111. PROVISION AUTOMATION PROCESS
- 22. **FIBER LINK, BANGALORE**
  - 112. ENHANCEMENTS IN THE EXISTING PORTAL OF MAAS360 IN JAVA, GWT, JQUERY
  - 113. OPTIMIZATION OF CONTENT STORAGE MECHANISM AT CDN SERVERS
  - 114. IOS7 SUPPORT IN MAAS360
  - 115. CODE DEVELOPMENT FOR GLOBAL SEARCH FOR FOLDERS
  - 116. SECURE DOCUMENT SHARING FOR MAAS360 APP FOR WINDOWS PHONE 8
  - 117. DEVELOPMENT OF NEW RELEASE OF SECURE BROWSER
  - 118. JQUERY BASED DEVICE VIEW
  - 119. CREATION OF MIGRATION SCRIPT FOR DATABASE
- 23. **FIORANO SOFTWARE TECHNOLOGIES PVT. LTD, BANGALORE**
  - 120. TESTING AND ENHANCEMENT OF SERVERS & STF FOR SOA10
  - 121. IMPLEMENTATION AND TESTING OF FIORANOMQ IN NATIVE C++
  - 122. TESTING AND ENHANCEMENT OF FIORANO ADAPTERS
  - 123. TESTING AND ENHANCEMENT OF FIORANO ESB
- 24. **FLIPKART ONLINE SERVICES PVT. LTD, BANGALORE**
  - 124. CONCEPT SIMILARITY IN FLIPKART SEARCH
  - 125. AUTOMATION TOOLS FOR RETAIL ANALYTICS TEAM & 3PL INTEGRATION
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152. [24]7ASSIST ENTERPRISE READINESS
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155. BACK-END TECHNOLOGIES FOR mGaadi CLOUD SERVICES
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187. AUTOMATION FOR SKYLAKE CONTINUOUS INTEGRATION
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206. AUTOMATION OF PATCHING ACTIVITY FOR JDA ENTERPRISE PLANNING AS PART OF CLOUD LIFECYCLE MANAGEMENT
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221. AUTOMATION IN DFT TOOL FLOW
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  - 924. DIGITAL MANUFACTURING OF AEROSPACE COMPONENTS
- 231. **CENTRAL BUILDING RESEARCH INSTITUTE, ROORKEE**
  - 925. CONDUCTIVE MORTAR USING PYROLYTIC CARBON BLACK
  - 926. FATIGUE LIFE ASSESSMENT OF STEEL STRUCTURE
  - 927. INVESTIGATION AND FEM ANALYSIS OF TAJ MAHAL
  - 928. PERFORMANCE BASED METHODOLOGY FOR SERVICE LIFE OF RCC STRUCTURES
- 232. **DIVGI WARNER (P) LTD,SIRSI**
  - 929. LEAN MANUFACTURING PRACTICES FOR MANUFACTURING EXCELLENCE -THE CASE OF DIVGI WARNER PVT. LTD. (SIRSI)
  - 930. SIX SIGMA IMPLEMENTATION IN MANUFACTURING FIRM TO REDUCE INTERNAL PPM.
  - 931. INTERNAL PPM REDUCTION USING SIX SIGMA AND OTHER QUALITY TOOLS
- 233. **ULTRATECH CEMENT (ANDHRAPRADESH CEMENT WORKS),TADIPATRI**
  - 932. GROUTING AND SILO REPAIR
  - 933. STUDY OF CONSTRUCTION OF WAGON TIPPLER COMPLEX
  - 934. ALTERNATE FUEL ANALYSIS
  - 935. OPTIMIZATION OF HEAT IN KILN SECTION
  - 936. HEAT BALANCE OF VERTICAL ROLLER MILLS AND PROCESS OPTIMIZATION
- 234. **ADITYA BIRLA CHEMICALS LTD, THAILAND**
  - 937. A REPORT ON SODIUM HYDROSULFITE PRODUCTION TECHNOLOGY
- 235. **CENTRE FOR DEVELOPMENT OF IMAGING TECHNOLOGY (C-DIT), TRIVANDRUM**
  - 938. FARMERS AGRICULTUREAL INFORMATION REPOSITORY
  - 939. DATA ACQUISITION OF COMMODITY PRICE AND WEATHER FOR FARMERS AGRICULTURAL INFORMATION REPOSITORY (FAIR)
  - 940. FARMER AGRICULTURAL INFORMATION REPOSITORY
  - 941. E-LEARNING WEB PORTAL FOR PC AND MOBILE
  - 942. E- LEARNING PORTAL DEVELOPMENT FOR FARMERS
- 236. **SUNTEC BUSINESS SOLUTIONS PVT. LTD, TRIVANDRUM**
  - 943. IRIDIUMPROJECT
  - 944. AXIS RETAIL IMPLEMENTATION - 5.2
  - 945. ABSA -CORE BILLING & PRICING PROJECT
  - 946. LLOYDS TBT PHASE 2
  - 947. MARSHEQ BANK SERVICE
  - 948. TPE CONFIGURATION AND CHANGE REQUESTS/ISSUE TESTING/RELTP E CONFIGURATION & CHANEASE ACTIVITIES.
  - 949. TESTING AND ANALYSING VARIOUS EXECUTABLE FILES FOR ICICI PAYOUT
  - 950. RETESTING OF THE ISSUES IN XELERATE WHICH HAVE BEEN RESOLVED BY THE DEVELOPMENT TEAM
  - 951. PRICING AND BILLING SYSTEM OF AXIS BANK
  - 952. LTSB TBT PHASE 2 (LLOYDS TSB UK)

953. CONFIGURATION OF AXIS BANK SCENARIO IN LATEST TBMS VERSION BY MODIFYING THE CONFIGURATIONS DONE IN EARLIER VERSIONS
- 237. DECCAN FINE CHEMICALS (I) PVT. LTD, TUNI**
954. ANALYSIS AND COMPARISON OF DIFFERENT CHEMICAL PRODUCTIONS
955. IMPLEMENTATION OF MEMBRANE TECHNOLOGY FOR NITROGEN SEPARATION
956. APPLICATION OF HEAT INTEGRATION FOR INCREASED EFFICIENCY
- 238. HINDUSTAN ZINC LIMITED, CHITTORGAR, UDAIPUR**
957. EFFECTS OF SULPHATES AND SULPHIDES IN ISF AND COUNTER MEASURES
958. HEAT BALANCE OF THE CATALYTIC CONVERTER IN THE ACID PLANT
959. STANDARD OPERATING PROCEDURE AND MATERIAL BALANCE OF THE HOT GAS PRECIPITATOR DUST TREATMENT PLANT
960. REDUCTION IN POWER CONSUMPTION OF COOLING VENTURI FAN AND FRESH-AIR-FAN-008
961. INCREASING CAMPAIGN LIFE OF ISF
- 239. DREAMWORKS ANIMATION, LOS ANGELES, USA**
962. HELP TRANSITION OD LOD ANIMATION TOOLS INTO NEW WORKFLOWS FOR THE MOVIE 'HOW TO TRAIN YOUR DRAGON 2' AND SUPPORT AS A TECHNICAL DIRECTOR.
963. DEVELOPMENT OF TOOLS FOR THE ANIMATION PIPELINE AS A SURFACING TECHNICAL DIRECTOR/PIPELINE ENGINEERING INTERN AT DREAMWORKS ANIMATION
- 240. ATUL LTD, VALSAD/ANKLESHWAR**
964. CONVERSION OF BATCH PROCESS TO CONTINUOUS FOR INTERMEDIATE 509 T
965. AUTOMATION BASED ON DCS AT RESORCINOL PLANT
966. PHOSGENE-BCF PLANT REFRIGERATION REQUIREMENT AND PERFORMANCE EVALUATION OF REFRIGERATION SYSTEMS
967. ENHANCING THE PLANT CAPACITY OF 2,4-D ETHYL ESTER PLANT AND CALCULATION OF UTILITIES FOR ISOPROTHIOLANE IN DIURON PLANT
- 241. INDIAN RAYON, VERAVAL**
968. OPTIMIZATION OF THE EXHAUST SYSTEM FROM SPINNING MACHINES.
969. THE DISTRIBUTION OF VISCOSE
970. AUTOMATION & DESIGN OF TRAVERSE MECHANISM FOR SPINNING MACHINES.
971. REUSE OF FLY ASH AND CONSTRUCTION DEBRIS IN CONCRETE.
972. REDUCTION OF CHEMICAL CONSUMPTION IN AFTER TREATMENT PLANT OF WSP.
- 242. JSW STEEL LTD., VIJAYANAGAR WORKS, VIJAYNAGAR**
973. DEVELOPING A SOFTWARE PID CONTROLLER FOR INDUSTRIAL PURPOSES
974. FEASIBILITY STUDY ON USAGE OF GRANULATED BF SLAG AND STEEL SLAG AS A REPLACEMENT FOR NATURAL SAND IN MORTAR & CONCRETE
975. SULPHUR ESTIMATION IN COREX HOT METAL
976. PREDICTION OF IRON ORE SINTER PROPERTIES ON THE BASIS OF REGRESSION ANALYSIS AND ARTIFICIAL NEURAL NETWORKS (ANN)
977. MODELLING THE EFFECT OF ALLOYING ELEMNTS AND COOLING TEMPERATURES ON THE PHYSICAL AND MECHANICAL PROPERTIES OF HOT ROLLED STEEL





## **BITS PILANI ALUMNI ADVISORY COUNCIL**

### **Distinguished Alumnus Awards 2013**

BITS Pilani conferred "BITS Pilani Distinguished Alumnus Award 2013" to the following alumni:

- Mr. Ramesh Ramanathan, Founder, Janaagraha Centre for Citizenship and Democracy, Bangalore, India, for Public Life and Social Entrepreneurship;
- Dr. Vijay Chandru, Founder and Chairman, Strand Life Sciences, Bangalore, India, for Entrepreneurship;
- Mr. Pankaj Patel, Executive Vice President and Chief Development Officer, Cisco Systems Inc., San Jose, CA, USA, for Professional management of businesses;
- Prof. S P Kothari, Deputy Dean and Gordon Y Billard Professor of Management, MIT Sloan School of Management, Massachusetts, USA for Academic Teaching and/or Research ; and
- Mr. Rajesh Hukku, Former Chairman and CEO, i-Flex Solutions, CA, USA, for Entrepreneurship.

This is in recognition of their significant and outstanding contributions to Professional management of businesses, entrepreneurship or academic teaching and/or research. The awards were presented during the Convocation 2013 at Pilani, on August 4, 2013.

### **Basket Ball courts gifted by alumnus of 1967 batch**

Two newly built state of the art basket ball courts with 8 layered Latex synthetic flooring system, padded umbrella poles with dunking ring facility, electronic score displays, new lighting system and new pavilions were gifted to the Institute by Mr M. P. Sharma, an alumnus of 1967 batch and Founder of Techmart retail chain which has presence in 16 countries of Middle East and Asia. The new basket ball courts built on the Gymnasium grounds were dedicated by Mr M P Sharma in memory of his loving father on 18 September 2013.

### **BITSians Day**

While BITS celebrates its Golden Jubilee year, BITSAA International had given a call to BITSians across the globe to celebrate what really makes BITS what it is - its alumni. Events across the globe were organized to celebrate the first ever 'BITSians Day' - the day when the world would witness the BITSian pride and what it means to be a BITSian! \_

### **Alumni Cell Pilani Campus**

During the year, a number of Alumni related events were organized that included Silver Jubilee Reunion, Golden Jubilee Reunion, Farewell parties to passing out graduates and a batch that celebrated its 40<sup>th</sup> year of passing out in Pilani. Brief about some of the prominent activities organised during the year are as under:

#### **Visit by 1960-65 Batch Alumni**

Nine families of 1960 -65 Batch of Alumni visited the campus on 18<sup>th</sup> February 2013. Visit was led by Shri Vinod Puri. The batch had an interaction with Prof G Raghurama, director of Pilani campus who shared with them various developments related to BITS. Batch observed that most of the landmarks are preserved as it is, like the main building, the Saraswati temple, Shivganga and Connaught. They recalled that their uniform of white shirt and white trousers had disappeared and saw students in jeans and T-shirts. There was greenery inside and outside the campus, with tall trees and the sand dunes had disappeared.

**Alumni Cell organized interaction with** Prof Autar Kaw, a BITS alumnus (1981 batch) and presently Professor of Mechanical Engineering and Jerome Krivanek Distinguished Teacher at the [University of South Florida](#), US on 9<sup>th</sup> August 2013 for the benefit of students and faculty. An interaction with Dr Vijay Chandru, Distinguished Alumnus Awardee 2013 was organized on 3<sup>rd</sup> August 2013 for the benefit of students and faculty, Dr Chandru briefly spoke about his student days at BITS Pilani and his journey as an academic entrepreneur during his time at IISc, Bangalore.

Another interaction with Prof Narendra Ahuja, an alumnus of 1972 batch from BITS Pilani and at present, Professor in the Department of Electrical and Computer Engineering at University of Illinois – Urbana Champaign was arranged 20<sup>th</sup> May 2013. Similar interactions with some other prominent Alumni were

organized during the year. A series of talks by leading academicians and entrepreneurs were organized under Embryo talks for the benefit of students. More than 20 Alumni were deeply involved in guiding mentoring and taking sessions in the course titled New Venture Creation wherein team of students worked on fine tuning their ideas to take it the next stage of launching or incubation.

#### **Farewell to Graduating Students**

Farewell to graduating students of 2009-13 batch was held at the VFAST lawns on Friday, 26<sup>th</sup> April 2013. Speaking on the occasion, Vice Chancellor Prof B N Jain congratulated the students and said, " You would be entering a world which is not always friendly. You will have to face all kinds of challenges both at home and professional life. You will be responsible for all decisions you take". Vice Chancellor called upon the students to make their family and their institution proud. He also said that they should remember all those who helped them to reach the present level. Prof G Raghurama, Prof G Sundar, Prof Surekha Bhanot and Prof Arya Kumar shared their thoughts for the benefit of graduating students.

Similar farewell graduating party was organized on 29th November 2013 in which Vice Chancellor Prof. B. N. Jain, Director Prof G. Raghurama, Deputy Directors Prof. R. N. Saha and Prof. G. Sundar, other faculty members and students of the Institute participated. Prof Jain on this occasion said, "I hope you were able to get the most of what BITS could offer to you in order to get you a good career and also contribute to the science and society. The friendship you have made during your days at BITS will be valuable and will remain with you forever ". Prof Raghurama, Prof Sundar, Prof Surekha Bhanot and Dr C B Das shared their thoughts with students.

Several students spoke on these farewells and conveyed their gratitude to the Institute and the teachers for helping them learn and grow. They said that staying at BITS and facing the challenges has made them better human beings while building leadership qualities.

#### **Silver Jubilee Reunion**

More than 170 Alumni of 1984-88 batch with a total number of more than 220 participants including family members participated in a Silver Jubilee Reunion organized between 18<sup>th</sup> and 20<sup>th</sup> October 2013. Prof Arya Kumar welcomed the participants in a formal session organized with senior management team of BITS Pilani. Prof B N Jain Vice Chancellor, Prof G Raghurama, Prof S K Agarwal, Prof R K Mittal in a special session organized for their benefit shared with them about developments ever since the batch left the campus and future thrust areas with a special emphasis on research to take the institute to greater heights were highlighted. The avenues for Alumni participation in multiple ways for the growth of the institute, especially after forming of Alumni Affairs Division in 2010 were shared. A special interactive session with leading Alumni of the batch for the benefit of students in the area of Career Planning; Entrepreneurial Track and Academia and Research was organized. Batch felicitated their teachers who taught them in a special function organized for the same. A cultural event jointly organized by music club and Alumni was organized in the evening in Auditorium wherein participants rejoiced the whole evening.

#### **Allumni Affairs Cell, K K Birla Goa Campus**

##### **Embryo Lectures**

Alumni Affairs Division of BITS Pilani K K Birla Goa Campus organized 7 Embryo talks during the year 2013. Details are as follows:

<b>Name of the Alumn(us)i</b>	<b>Topic</b>	<b>Date</b>
Dr. Traun Khanna	Essence of Entrepreneurship in Emerging Markets	8 <sup>th</sup> April, 2013
Dr. Kiran Bedi	Importance of Leadership in Today's India	20 <sup>th</sup> August, 2013
1. Srivarsha Rajshekhar 2. Adwait Gandhe	BITS2MSPHD	31 <sup>st</sup> August, 2013
Mr. Gaurav Tekriwal	Vedic Maths	6 <sup>th</sup> September, 2013
1. Shivakumar Ganeshan, 2. Siddharth Ramesh Karthikeyan Krishnamurthy	What lies ahead? – MS, MBA or Entrepreneurship	12 <sup>th</sup> September, 2013
Anupama T V	Ever wondered about getting into IAS	1 <sup>st</sup> October, 2013
Rajroshan Sawhney	MBA at the Indian School of Business	7 <sup>th</sup> October, 2013



## RESEARCH PROJECT GRANTS

### *Pilani Campus:*

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
1.	Synthesis and detailed characterization of 'ship-in-a-Bottle' complexes inside the microporous and mesoporous material	Dr. Saumi Ray	DST	20.00
2.	Syntheses of efficient and pure blue triplet emitting materials for fabrication of white organic light emitting diodes (WOLEDs)"	Dr Inamur R Laskar	DST	22.17
3.	Design and Synthesis of Novel Bioactive Heterocycles as Anticancer	Dr Dalip Kumar	CSIR	13.58
4.	Novel Synthetic Methodologies for Biologically Important Compounds using Lanthanide Triflates as Lewis Acids in Ionic Liquids	Dr. Anil Kumar	UGC	08.77
5.	Development of a novel synthetic route for an anti-HIV drug	Dr. Dalip Kumar Dr. Anil Kumar	Ranbaxy	11.50
6.	Design, Synthesis And Biological Evaluation of Indole-based Heterocycles as Anticancer Agents	Dr Dalip Kumar	UGC	7.50
7.	Crystal Engineering of Metal-Organic Frameworks using Organic Linkers Derived from Template-Controlled Solid-State Reactions	Dr.Madhushree Sarkar	DST	23.40
8.	An Extensive Computational Development of Multi-reference Coupled-cluster Methods for Electronic Structure Investigations of Big Molecules	Dr.PrashantU. Manohar	DST	22.40
9.	Study on physicochemical and interfacial properties of some mixed micellar systems of novel Gemini and conventional surfactants in water and water-organic solvent mixed media	Dr.Subit K. Saha	A B Group	10.00
10.	Development of Framework for Multi-agent Robotic Systems	Dr.Sudeep Mohan	CAIR (DRDO)	9.50
11.	Design of Modified Release Multi-Unit Particulate Delivery Systems for Fixed-Dose Combination of Artesunate and Amodiaquine for Pediatrics	Dr. Shrikant Y Charde	UGC Major Research Project	10.25
12.	Evaluation of Anti-Diabetic Foot Cream	Dr. R. P. Pareek	TTK LIG Ltd., Chennai	1.00
13.	Pharmaceutical Application Studies of Polymers Manufactured by BASF	Dr. ShrikantCharde	BASF, Mumbai	2.00

<b>S.No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
14.	Design of novel nasal delivery systems for selected drugs	Prof. R. N. Saha	Torrent Research Centre, Ahmedabad	20.00
15.	Studies on newer use of Carbopols as pharmaceutical excipients	Prof. R. N. Saha	Lubrizol, USA	12.00
16.	Design, Synthesis and Study of Novel Benzopiperidine analogs as HIV-1 Reverse Transcriptase Inhibitors	Dr. S. Murugesan	BITS, Pilani Research Initiation Grant	2.00
17.	Aakash Ganga – A Social Enterprise Model for RWH and Agriculture of low water demanding economically important plant	Prof. Rajiv Gupta	Department of Science and Technology, New Delhi	61.96
18.	Development and Usage of Innovative Ductile Composite Materials for Repair and Retrofitting of Masonry Structures	Prof.S. B. Singh	Aditya Birla Group (ABG)	10.00
19.	Failure and Stability of Laminated Composite Plates with Cutouts	Prof S. B. Singh	K.K. Birla Academy Projects, BITS, Pilani	4.50
20.	A Study on Sludge Minimization during The Treatment of Pickling Effluent and Utilization of Sludge	Dr. AnupamSinghal	ABG	10.00
21.	GIS based Characterization of Ground water in Shekhawati Region of Rajasthan	Dr. AnupamSinghal	DST	18.00
22.	Investigation into the Behavior of Coupling	Dr. DipenduBhunia	BITS Faculty Research Initiation Grant	2.00
23.	Mobilization of Metals from Copper Mine Tailings of Khetri Copper Mine, Rajasthan and their Attenuation by Soil: Groundwater Pollution Implications	Dr. Sanghamitra Kundu	DST	11.27
24.	Dynamic Buckling Responses of Composite Structures	Mr. S. N. Patel	BITS Faculty Research Initiation Grant	2.00
25.	Establishment of National MEMS Design Centers	Prof. N.N. Sharma	National Program on Micro and Smart Systems (HR PARC)	16.7
26.	Indigenization of Lab-on-Chip for UTI Pathogen Detection	Prof. N.N. Sharma (CO- PI)	National Program on Micro and Smart Systems (Bio PARC)	82.51
27.	Development, Design and Engineering of 28-DOF Humanoid to avoid obstacles and handle specified objects in the environment	Dr. B.K. Ruot	Ministry of Information and Technology, (MIT)	45

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
28.	Flow in Closed Microfluidic Channel	Prof. N.N. Sharma	INUP, IIT, Powai	Equipment usage, and contingency
29.	Design and development of OptofluidicMicropumps	Prof. N.N. Sharma	CEERI-BITS	Equipment usage & Chemicals
30.	Carbon Nanotube from Carbon Black:	Prof. N.N. Sharma	Aditya Birla Group	10
31.	Subproject of Project OSCAR being carried out in IIT Bombay	Dr. SaiJagan Mohan	MHRD	3
32.	Cardiovascular Disease in Human Population: Mathematical Modeling and Analysis of its Incidence, Risk Factors and Preventive Strategies	Dr. Padma Murali	UGC	8.44
33.	Modeling and Simulation of Viscose Flow through JetPack Assembly	Dr. Pratik N. Sheth Dr. Suresh Gupta (Co-Invstigator)	Birla Cellulosic Kharach	5.52
34.	Characterization of Bio-oil produced via Pyrolysis of Jatropha Cake Residue	Dr. Pratik N. Sheth	BITS, Pilani	2.00
35.	Experimental studies of Bio-mitigation of CO <sub>2</sub>	Dr. Smita Raghuvanshi Mr. Subhajit Majumder(CI)	BITS, Pilani	2.00
36.	Determination of Foaming Properties of Aqueous Ethanol Solution Using Industrial Surfactant Sodium Lauryl Sulfate	Dr. Pradipta Chattopadhyay	BITS, Pilani	2.00
37.	Optimization of Complex Chemical Processes Using Evolutionary Algorithms	Dr. Ashish M. Gujarathi	BITS, Pilani	2.00
38.	Nano technology for enhanced utilization of native-phosphorous by plants and higher moisture retention in arid soils	Dr. JitendraPanwar	Indian Council of Agricultural Research (ICAR), Govt. of India, New Delhi.	3.726 Crores (41.53 Lakhs for BITS Pilani Centre)
39.	Molecular characterization of ACC (1-aminocyclopropane-1-carboxylate) deaminase activity of associative bacteria isolated from plants of desert of Rajasthan	Dr. PrabhatNathJha	DBT	41.35
40.	Molecular characterization of <i>Anopheles stephensi</i> gut epithelial peroxidases and their role in modulating immunity against bacterial and fungal antigens	Dr. Sanjeev Kumar	DST	47.18
41.	Characterization of immune signaling pathway in <i>Anopheles</i> mosquitoes	Dr. Lalita Gupta	DST	21.20
42.	Analyzing structural and functional evolutionary links between RubisCO and carbon concentration mechanism proteins	Dr. Sandhya Mehrotra	DST	23.96

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
43.	Development of surface Plasmon resonance instrument with a novel optical design	Dr Raj kumar Gupta	DST	25.66
44.	Synthesis of Platinum (II) based pure blue emitting triplet harvesting materials and their applications in white organic light emitting diodes as single emissive dopants	Dr Inamur Rehman lashkar	CSIR	20.20
45.	Design and characterization of electrochromic rear view mirrors using conducting polymers	Dr S Sindhu	DST	24.35
46.	Developing a smart crop management system using data analytics	Dr Navneet Goel	IBM	6.75
47.	Studies on cell lines as model for predicting in vitro buccal permeation of various classes of drugs and its co-relation with n vivo data	Dr S Y Charde	DST	23.58
48.	Design, synthesis and evaluation of novel tetrahydroisoquinoline analogs as anti-HIV agents	Dr S Murugesan	DST	24.75
49.	Endophytic bacteria mediated phytoremediation of organic pollutants	Dr Parmeela	DST-WoS	25.10
50.	Organo catalysis as green approach for synthesis of pyrrolidine/fused pyrrolidines: towards the synthesis of related alkaloids	Dr Indresh kumar	DST	21.90
51.	Removal of heavy metals from industrial wastewater using biofiltration	Dr Smita Raghuvanshi	UGC	5.50
52.	Dynamics of Biological Species: Some Mathematical Models	Dr. Atasi Patra	DST	10.86
53.	An agent-based tool for prediction, analysis, reporting and dispensing of Climate data	Dr Yash Sharma	UGC	8.85
54.	Design and development of test rig to understand dynamics of nanorobots	Dr N N Sharma	UGC	9.37
55.	Investigation of the effect of carbonation on the properties of concrete	Dr Dipendu Bhunia	DST	34
56.	Steady state measurements of fluorescent in restricted environments	Dr D D Pant	UGC	11.63
57.	Investigations on quark-gluon plasma through quarkonia suppression in QCD matter	Dr Madhukar Mishra	DST	11.40
58.	Bio Mems Device for separation of bioparticles	Dr N N Sharma	DBT	20.25
59.	Design Synthesis and evaluation of novel beta secretase inhibitors for the treatment Alzheimer's Disease	Dr Priti Jain	UGC	2.00
60.	Design and Characterization of novel buccal drug delivery system of felodipine	Dr Murali Manohar Pandey	UGC	1.70



<b>S.No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
61.	A New Distributed Computing Framework for Data Mining	Dr Navneet Goel	DIT	95.00
62.	Transition Metal-Catalysed coupling/reductive coupling of saturated alkyl halide with electron withdrawn alkenes	Dr Paritosh Shukla	UGC	11.95
63.	A Normative Analysis of Selflessness as the Inner Perspectives of Good Life	Dr K N Sachdeva	ICPR	2.00
64.	Study of the indus valley scripts through linguistic and Markov Chain Methods	Dr Niladri Sarkar	INSA	1.75
65.	Removal of volatile organic compounds from waste streams using biofiltration	Dr Smita Raghuvanshi	DST	14.18
66.	Synthesis of Novel NOS Containing Heterocycles and evaluation of their anticancer activities	Dr Dalip Kumar	DBT	18.80
67.	Phytochemical and metabolic characterization of Prosopis cineraria pods(Sangri) as potential nutraceuticals	Dr Pankaj Sharma	DST	21.30
68.	Enzymatic kinetic resolution of racemic amidoalkyl naphthols and their derivatives	Dr Santosh Padhi	BITS	2.00
69.	Possible mechanism of attenuation of the cardioprotective and neuroprotective effect of Ischemic preconditioning	Dr Rajeev Taliyan	BITS Faculty Research Initiation Grant	2.00
70.	Organocatalytic cascade towards substituted Pyrrole 3-carboxyaldehydes: A variation in Paal Knorr Pyrrole synthesis	Dr Indresh Kumar	BITS Faculty Research Initiation Grant	2.00
71.	Space time coupled least squares spectral element methods for parabolic problems using parallel computers	Dr Pankaj Biswas	BITS Faculty Research Initiation Grant	2.00
72.	Synthesis and characterization of metal oxide dendrimer encapsulated nanoparticles and electrocatalysis	Dr Surojit Pande	BITS Faculty Research Initiation Grant	2.00
73.	Design and Synthesis of Bile acid nucleosides conjugates linked via amino acids as potential anticancer agents	Dr Rajeev Sakhuja	BITS Faculty Research Initiation Grant	2.00
74.	Design and spectroscopic characterization of novel donor acceptor systems to be used in light energy conversion	Dr Shamik	BITS Faculty Research Initiation Grant	2.00
75.	Analysis of genetic diversity of malaria parasite using genetic and microsatellite markers from Bikaner	Shilpi Garg	BITS Faculty Research Initiation Grant	2.00
76.	Characterisation of genes regulation the polarity of sensory organs of Drosophila	Dr Monalisa Mishra	BITS Faculty Research Initiation Grant	2.00
77.	Awareness, Use and Implication of Web 2.0 for supplementing classroom teaching at graduate level	Dr Virendra Nirban	BITS Faculty Research Initiation Grant	2.00

<b>S.No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
78.	Cinematic Arts: A critical sstudy of Multidisciplinary aspects of cinema	Dr Sushila Shekhawat	BITS Faculty Research Initiation Grant	2.00
79.	Modelling Modal Shift to Bus Rapid Transit System(BRTS) from other modes of travel in Jaipur	Dr Shrinivas Arkatkar	BITS Faculty Research Initiation Grant	2.00
80.	Condition Monitoring of Dynamic System by Vibration Response Analysis	Dr. Arun Jalan	BITS Research Initiation Grant	2.00
81.	Preparation and characterization of thin films of electrochromic conducting polymer and fabrication of prototype smart pixel displays	Dr. S. Sindhu	CSIR	14.10
82.	Impact of PMGSY Roads on Accessibility in Rural Areas	Dr. A.K.Sarkar	NRRDA	22.63
83.	Molecular studies on extracellular biosynthesis of metal nanoparticles	Dr. Jitendra Panwar	DST-Nano mission	45.50
84.	Development and Usage of Innovative Ductile Composite Materials for Repair and Retrofitting of Concrete and Masonry Structures	Dr. S.B.Singh	DST	23.50
85.	Novel a-Amino, a-Aminoxy and a-Hydrazino acids linked Bio-conjugates: Design, Synthesis and Biological Evaluation	Dr. Rajeev Sakhuja	UGC-Start upgrant	6.00
86.	Size-Dependent Hydrogenation Catalysis with Mono-(Pd and Pt) and Bimetallic (Pd@Pt) Nanoparticles in Quantum Dot Region	Dr. Surojit Pande	UGC-Start up grant	6.00
87.	Implication of Glycogen Synthase Kinase-3 and Histone Deacetylase inhibitor in neurological disorders associated insulin resistance syndrome	Dr. Rajiv Taliyan	UGC-Start up grant	6.00
88.	Enzyme Catalyzed Kinetic Resolution of (a) Racemic Amidoalkyl naphthols and (b) Racemic 1-Amidomethyl-	Dr. Santosh Padhi	UGC Start up grant	6.00
89.	Design of new ionic receptor molecules derived from Schiff Bases: syntheses and their spectroscopic and theoretical characterization	Dr. Shamik Chakraborty	UGC Start up grant	6.00
90.	Facility management using GIS and Genetic algorithm	Dr. Rajiv Gupta	DST	19.99
91.	Exploration of novel ionic liquid-supported sulfonyl reagents for organic synthesis	Dr. Anil Kumar	CSIR	12.76
92.	Understanding the epigenetic regulation in modulating inflammatory response mediated by NF-kb through AT1 and AT2 receptor in type II diabetic nephropathy	Dr. Anil G. Bhanudas	DST	19.41

<b>S.No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
93.	Esculetin a Therapeutic Intervention Targeted at Cardio-Renal Syndrome in Type-2 Diabetes	Dr. Anil G. Bhanudas	DST	39.66
94.	The role of Hippo signaling pathway components in autophagy regulation in hepatocellular carcinoma	Dr. Rajdeep Chowdhury	DST	24.05
95.	Engineering haliospermum montanum hydroxynitrile lysase for potential synthetic and industrial applications	Dr. Santosh Padhi	DST	25.00
96.	Removal of Heavy metals from industrial wastewater using metallic nanoparticales as absorbents	Dr. Suresh Gupta	DST	21.47
97.	Study of Traffic flow characteristics on expressways	Dr. Srinivas Arkatkar	DST	21.47
98.	Production of hydrogen rich fuel gas from Jatropha residue cake	Dr. Pratik Seth	DST	24.90
99.	Evaluation and enhancement of foam stability of eathonol based aqueous foam using commercial surfactant sodium lauryl sulfate	Dr. Pradipta Chattopadhyay	DST	25.00
100.	Design and Development of opinion mining framework	Dr. Yash Sharma	DST	13.26
101.	Design, development and implementation of a building integrated photovoltaic system for rural application	Dr. Rajneesh Kumar	State Innovation council	43.26
102.	Exploring nertoprotective effect and molecular mechanisms of remote limb ischemic post-conditioning against brain stroke	Dr. Rajeev Taliyan	DST	25.0
103.	Characterization of surface errors in machining of thin-walled curved geometries	Dr. Tufan Chand Bera	DST	24.09
104.	Enhancing phytochemical production by the use of elicitors	Dr. Sachi Singh	DST	21.80
105.	Dark energy modeling of cosmic acceleration with observational constraint in Eintein gravity and modified theories	Dr. Suresh Kumar	DST	14.16
106.	Synthesis and characterization of Metal Oxide Core- (Metal) shell nanoparticles in quantum dot region and their applicaton in electrocatalysis	Dr. Surojit Pande	DST	24.93
107.	Design of synthetically tunable azino-fused chromene conjugates as potential organogelators	Dr. Rajeev Sakhuja	DST	24.70
108.	Development of Listening and speaking modules of English languages through multimedia lab for rural students of class XI-XII	Dr. Devika	UGC	4.09

<b>S.No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
109.	Role of Conserved oligomeric golgi complex (COG7) gene in the morphogenesis of hearing organ in drosophila	Dr. Monalisa Mishra	DST	24.75
110.	Study of awareness, uses and implications of web 2.0 for supplementing classroom teaching at graduate level	Dr. Virendra Nirbaan	UGC	7.89
111.	Transforming language learning with new technologies for enhancing employability of college students from rural background	Dr. Pusph Lata	UGC	8.94
112.	A Mechanistic analysis of the role of pro-inflammatory cytokines in induction of epithelial to mesenchymal transition in hepatocellular carcinoma	Dr. Sudeshna Mukherjee	DST	16.80
113.	Study of Structural Response and Strengths of Thin-Walled FRP Composite Girders	Dr. S.B.Singh	CSIR	14.32
114.	The Study of post-reionization HI distribution using the redshifted signal and Ly forest towards understanding cosmic accelation	Dr. Tapomoy G. Sarkar	DST	10.38
115.	Identifying microRNA signatures associated autophagy induced chemoresistance in hepatocellular carcinoma	Dr. Rajdeep Chowdhury	UGC-Start up grant	6.00
116.	Analysis of hypothetical and putative proteins dual targeted to apicoplast and mitochondria in plasmodium vivax	Dr. Shilpi Garg	UGC Start up grant	6.00
117.	Role of Protein kinase D in eye development of Drosophila	Dr. Monalisa Mishra	UGC Start up grant	6.00
118.	Information transfer during collective motion	Dr. Kunal Bhattacharya	BITS Research Initiation Grant	2.00
119.	Application of Enriched Microbial Biofilter for Metal Detoxification in Industrial Wastewater	Dr. Subhazit Mazumder	UGC	2.00
120.	Neuro-pharmacological investigation of novel Quinoxaline Carboxamides: Novel Serotonergic Modulators for their Anti-depressant and Anxiolytic Activity	Dr. Shvetank Bhatt	UGC	2.00
121.	Synthesis, Characterization and applications of Novel Ionic Liquid supported Metal Complexes	Dr. Bharti Khungar	UGC	13.40
122.	Synthesis, Metallochemistry and Reactivities of D-Glucose derived Glycoconjugates	Dr. Ajay Kumar Sah	UGC	9.13
123.	Development and Validation of sustainability framework for manufacturing industries	Dr. Abhijeet Digalwar	UGC	3.22
124.	Recovery of Multiple Metals ions from Industrial Wastewater using Adsorption	Dr. Utkarsh Maheswar	UGC	2.00

<b>S.No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
125.	Study of native chemical ligation at tryptophan and aspergine sites and its application in peptide synthesis	Dr. Kiran Bajaj	DST	25.50
126.	Experimental Investigation on CO <sub>2</sub> based refrigeration system in Trans-critical cycle	Dr. M.S.Dasgupta	DST	27.50
127.	Design of Ionic Liquid linked Benzotriazoles as Useful Synthetic Auxiliaries in Organic Synthesis	Dr. Rajeev Sakhuja	BITS Seed Grant	9.80
128.	A Digital Humanities Approach to Interpret the Visual Culture of Shekhawati Region	Dr. Leela Rani	BITS Seed Grant	13.90
129.	Electromagnetic Characterization of Three Dimensional Targets with Plasma Cladding for Stealth Technology Using Recursive Convolution Finite Difference Time Domain Methods	Dr. Niladri sarkar	BITS Seed Grant	5.20
130.	Investigation & Development of an ICT Driven MIS for Small Milk Producers	Dr. Leela Rani	BITS Seed Grant	3.20
131.	Effect of esculetin on the development of type II diabetic nephropathy	Dr. Anil G. Bhanudas	BITS Research Initiation Grant	2.00
132.	Developing metal Doped Bismuth Vanadate (BIMEVOX) Systems for fuel cell and catalytic applications	Dr. Banasri Roy	BITS Research Initiation Grant	2.00
133.	LCAT and ApoB the two modulators of cholesterol metabolism: are they regulated by HFHS and TNFa	Dr. Prafulla C. Shukla	BITS Research Initiation Grant	2.00
134.	Role of Pro-inflammatory Cytokines in Epithelial to Mesenchymal transition in Hepatocellular carcinoma	Dr. Rajdeep Chowdhury	BITS Research Initiation Grant	2.00
135.	Enzymatic Kinetic resolution of racemic amidoalkyl naphthols and their derivatives	Dr. Santosh padhi	BITS Research Initiation Grant	2.00
136.	Synthesis and characterization of polymeric nanoparticles for applications in oral drug delivery	Dr. Sonal mazumder	BITS Research Initiation Grant	2.00
137.	Understanding and facilitating mentor-protégé relationships: An appreciative inquiry approach	Dr. Rajneesh Choubisa	BITS Research Initiation Grant	2.00
138.	Manufacturing Ultra-light high performance green composites from renewable feedstock	Dr. Subrata Bandhu Ghosh	BITS Research Initiation Grant	2.00
139.	Women at the work place: Investigating gender differences in sciences at higher education institution	Dr. Tanu Shukla	BITS Research Initiation Grant	2.00
140.	Exploring Nothe-East India through the lens of its literary productions	Dr. Kumar Sankar Bhattacharya	BITS Research Initiation Grant	2.00

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
141.	Growth and characterization of substrate supported transition metal nanostructures useful for catalytic, electronic and sensor applications	Dr. Subhashis Gangopadhyay	BITS Research Initiation Grant	2.00
142.	Micromodel experiments demonstrating gravity and capillary dominated immiscible flow of mercury in porous media	Dr. Shibani Khanra Jha	BITS Research Initiation Grant	2.00
143.	Development of ecofriendly nonionic surfactants coupled ultrasonic extraction technology for conophylline, an antidiabetic lead molecule and its comparison with conventional extraction techniques	Dr. Paul Atish Tulshiram	BITS Research Initiation Grant	2.00
144.	A study of Indian university models between 1857 and 1964	Dr. Harikrishnan Gopinandhan Nair	BITS Research Initiation Grant	2.00

### ***KK Birla Goa Campus:***

#### **Ongoing Sponsored Research Projects**

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
1.	Development of biosensors and micro-techniques for analysis of pesticide residues, aflatoxin, heavy metals and bacterial contamination in milk	Dr. Sunil Bhand	ICAR (Under NAIP)	[444,47989 revised] (Total Rs. 2943.736 lakhs for consortium project)	4.16 years
2.	Detection and mitigation of dairy pathogens and detection of adulterants using chemical biology	Dr. Sunil Bhand	ICAR (under NAIP)	[91,34975 revised] (BITS-Goa share out of 695.7363 lakhs)	3 years
3.	Development of turn-on type chemodosimer for selective recognition of sulfhydryl-containing amino acids and peptides in aqueous media	Dr. Amrita Chatterjee	DST	[19,86,600]	3 Years
4.	Redox sensitive vesicles of Cucurbit{7}urils as an efficient targeted intracellular drug delivery vehicle	Dr. Mainak Banerjee	DST	[24,15,000]	3 years
5.	Development of Nanostructured High Surface Area Alumina and Silica based adsorbent with Tailored Pore structure for Removal of Fluoride ions from Ground Water	Dr. N N Ghosh	BRNS	[29,07,150]	3 years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
6.	Novel Schiff base acrocycle containing Se-Se bonds and their reduced analogues: Synthesis, characterization, comparative coordination chemistry and theoretical studies	Dr. Arunashree Panda	DST (WOS)	[21,96,000]	3 years
7.	Photoluminescence Studies on Undoped and Transition Metal Doped ZnO Nanoparticles	Dr. Teny Theresa John	DST-FT	[23,34,000]	3 Years
8.	Investigation of Schottky contacts to Silicon Carbide (SiC) using I-V and C-V techniques	Dr. C. K. Ramesha 39-453/2010(SR)	UGC	[10,77,800]	3 years
9.	Wireless Sensor Network Design for inaccessible terrains	Dr. K. R. Anupama 39-893/2010(SR)	UGC	[5,38,000]	3 years
10.	Synthesis and characterization of binary and ternary transition metal nitrides	Dr. R. N. Panda SR/S1/PC/0063/2010	DST	[18,95,000]	3 years
11.	Structure elucidation of VC0395_300 protein from Vibrio cholera (leading to an alternate methodolerae epidemics)	Dr. Sumit Biswas 2010/37B/51/BRNS	BRNS, DAE	[21,97,850]	3 years
12.	Biochemical and genetic Characterization of Antimicrobial (Candidacidal) peptides produced by the anatarctic strain Enterococcus faecalis APR 210	Dr. Utpal Roy Dr. Angshuman Sarkar Dr. Sumit Biswas 39-205/2010(SR)	UGC	[7,33,800]	3 years
13.	A new novel biodegradable polymer scaffold for cartilage tissue engineering	Dr. Vijayashree Nayak 2011/37B/04/BRNS	BRNS, DAE	[21,02,500]	3 years
14.	Aspects of some astrophysical systems like supernovae and neutrontars in the light of new physics	Dr. Prasanta Das 2011/37P/08/BRNS	BRNS, DAE	[17,51,000]	3 years
15.	Magnetic properties of metallic nano particles	Dr. R N Panda 01(2457)/11/EMR-II	CSIR	[10,81,080]	3 years
16.	Study the effect on nanoparticles on protein synthesis and expression of small GTPases	Dr. Angshuman Sarkar 2011/37B/25/BRNS	BRNS	[19,07,000]	3 years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
17.	Physicochemical characterization of the primary sigma factor of Vibrio cholera	Dr. Sumit Biswas BT/210/NE/TBP/2011	DBT (under Twinning Program for the NE)	[7,97,000]	3 years
18.	Study of effective interactions in charged colloidal suspensions	Dr. Raghunath Behera 01(2513)/11/EMR-II	CSIR	[12,00,000]	3 years
19.	Development of low temperature magnetization measurement set-up	Dr. Ram Shankar Patel 03(1204)/12/EMR-II	CSIR	[13,85,000]	3 years
20.	Studies on Putative GGEEF/Sensory Box Domain Protein of Vibrio Cholerae	Dr. Sumit Biswas SR/FT/LS-122/2010	DST	[21,80,000]	3 years
21.	Magnetotactic bacteria: Bioresource of nanomagnets (Magnetosomes)	Dr. Nimali N Prabhu SR/FT/LS-120/2011	DST	[25,00,000]	3 years
22.	Tissue engineering of human placental stem cells into a functional pancreas	Dr. Anasuya Ganguly SR/FT/LS-137/2011	DST	[22,14,000]	3 years
23.	Hardware implementation of time frequency distribution of Mirnov oscillation in Tokamak using the Hilbert Huangtransform	Dr. Amalin Prince Prof. K.R.Anupama Mrs. Femi. R. BRFST/NFP/2012/AU G/N/03	Board of research in fusion science and technology (BRFST)	[22,58,000]	2 years
24.	Magnetotransport in magnetic tunnel junctions	Dr. Ram Shankar Patel SR/NM/NS-1002/2010(G)	DST	[52,65,000]	3 years
25.	Design and development of condition based monitoring of pipelines using wireless sensor networks	Dr. K.R. Anupama Dr. Arun Kumar Jalan Dr. Lucy J Gudino Dr. K. N. Ponnani Dr. Sharad Srivastava Dr. Neena Goveas GAIL/NOIDA/R&D/BITS/WSN/2012/01	GAIL	[71,36,000]	2 years
26.	Seawater desalination using liquefied natural gas (LNG) refrigeration	Prof. K. Srinivas GAIL/NOIDA/R&D/BITS-GOA-LNG/2012/01	GAIL	[3,82,21,000]	3 years
27.	Bio-Catalytic Production of a Commercial Textile Dye Indigo	Dr. M. Srikanth 8-136-2009/STE-DIR/Acct/Part/738	DSTE, Goa.	[5,11,200]	1 year



S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
28.	Exploring spiritual quotient and analyzing its impact on the research performance of university teachers in India	Dr. Shalini Upadhyay 02-167/2011-RP	ICSSR	[6,57,900]	2 years
29.	Prediction of thermodynamic, thermophysical, transport, thermoacustical and excess properties of binary, multicomponent liquid mixtures and ionic liquids (RTIL's)	Dr. Ranjan Dey 01(2682)/12/EMR-II	CSIR	[10,12,830]	3 years
30.	High-efficiency energy conversion in Steam boilers using unmixed combustion	Prof. K. Srinivas SR/S3/CE/031/2011	DST	[31,05,000]	3 years
31.	Experimental wear analysis of an artificial hip implant materials using an advanced tribometer customized for bio-tribological studies	Prof. D. M. Kulkarni Mr. A. C. Kukarni Dr. Hemant Kumar Mrs. Jyotsna Kulkarni SR/S3/MERC/0077/2011	DST	[20,50,000]	2 years
32.	An Investigation on Derivatives of meso Tetrathienylporphyrin as dye sensitized Solar cells	Dr. P. Bhavana 02(0076)/12/EMR-II	CSIR	[17,11,080]	3 years
33.	Protein-ranking and novel Intervention strategies against mycobacterium tuberculosis using graph theory and bioinformatics resources	Dr Veeky Baths Dr. Utpal Roy SR/FT/LS-83/2012	DST-FT	[8,60,000]	3 years
34.	Experimental investigations of rotational moulding process using nano-scale fumed silica composites	Dr.Sachin D Waigaonkar SR/FTP/ETA-61/2012	DST-FT	[15,84,000]	3 years
35.	Spectroscopic investigation of the properties of low lying electronic states of some chemopreventive retinyl nitrones and comparison of their light-induced properties with retinyl iminium ions	Dr. Anjan Chatopadhyay Dr. Mainak Banerjee 01(2681)/12/EMR-II	CSIR	[12,64,830]	3 years
36.	Synthesis of metal-organic-porous material based efficient chiral heterogenous catalysts by post synthetic modification and their applications in asymmetric reactions	Dr. Mainak Banerjee 02(0075)/12/EMR-II	CSIR	[22,25,580]	3 years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
37.	Analysis of metabolically active bacterial species in anaerobic digesters	Dr. M. Srikanth 37(1555)/12/EMR-II	CSIR	[21,10,800]	3 years
38.	Probing New Physics at high energy colliders	Dr. Prasanta Das 03(1244)/12/EMR-II	CSIR	[15,66,800]	3 years
39.	Rotational moulding of LLDPE using nanoscale fumed silica composites	Dr.Sachin Waigaonkar F.20-3(21)/2012(BSR)	UGC Start up grant for newly recruited faculty	[6,00,000]	3 years
40.	Cloning and characterization of the promoters of Staphylococcus aureus temperate bacteriophage, $\phi$ 11	Dr. Malabika Biswas 2013/37B19/BRNS	BRNS	[23,99,719]	3 years
41.	Studies in neighborhood magic graphs	Dr. Tarkeswar Singh SR/S4/MS:734/11	DST (Major)	[12,69,360]	3 years
42.	Identification and characterization of abiotic stress responsive With No Lysine (WNL) kinase in rice ( <i>Oryza sativa</i> L.)	Dr. Kundan Kumar SB/FT/LS-312/2012	DST-FT	[22,65,000]	3 years
43.	Neutron stars as a source of potential continuous gravitational wave emitter	Dr. Tarun Kumar Jha Dr. S. K. Sahay 2013/37P/5/BRNS	BRNS	[17,00,000]	3 years
44.	Role of environmental toxin in kidney related diseases in Canacona Taluk, Goa	Dr. Anasuya Ganguly Dr. M. Srikanth 27(0284)/13/EMR-II	CSIR	[11,99,400]	3 years
45.	Alternative splicing in signal transduction and disease: A genome wide approach	Dr. Indrani Talukdar SB/YS/LS-60/2013	DST-FT	[20,00,000]	3 years
46.	Development and characterization of nanomaterials for biosensors and biocatalysis	Dr. N. N. Ghosh INT/DST/INT/UK/P-41/2012 Prof. Sunil Bhand Dr. C. K. Mitra UK counterpart Prof. Paul Antony Milner, University of Leeds	UKIERI-DST	[26,32,000]	2 years
47.	One among many? Examining the efficacy of mobile money in India,s remittance corridors	Dr. Mridula Goel sub contract no. 2013-2954	Funded through University of California	[4600\$]	1years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
48.	Imprinted polymer for sensing and removal of selected antibiotic and pesticide residue	Prof. Sunil Bhand NFBSFARA/PHT-4007/2013-14 Dr. Y S Rajput, NDRI, Karnal Prof. Sudhir Chandra, IIT, Delhi	ICAR	[6060500]  (BITS share out of total 139.68410 lakhs consortium project)	2 years
49.	Searching for new physics in B-meson decay	Dr. Chandradew Sharma Principal collaborator: Dr. Rahul Sinha 2013/37P/34/BRNS	BRNS	[18,02,500]	3 years
50.	Improving the energy efficiency of solar cells by spin caloritronics	Dr. Ethirajulu S. Kannan SR/FTP/PS-138/2012	DST-FT	[2208000]	3 years
51.	Biotransformation of Phosphogypsum by sulphate reducing bacteria	Dr. M. Srikanth BT/PR7470/BCE/8/95 2/2013	Environmental Biotechnology Division (DBT)	[5,21,000]	1 years
52.	Development of efficient bioleaching process for the metal recovery from spent catalysts	Dr. S. S. Baral  Dr. P. Venkateswara Rao	DBT	[17,62,600]	3 years
53.	Preparation of Magnetically Separable, Mesoporous TiO <sub>2</sub> Catalyst and Study of their Catalytic Properties	Dr. N.N. Ghosh Coinvestigator: Dr. Mainak Banerjee	CSIR	[18,24,400]  Sanctioned	3 years
54.	CROSS CULTURAL COMMUNICATION – An empirical analysis of cross cultural communication variables in Indian industries leading towards developing appropriate strategies for multi-cultural workplaces and academia	Dr. Basavadatta Mitra	UGC	Approved Proposed amount [1300000]	3 years
55.	Development of $\beta, \beta'$ -edge fused $\pi$ -elongated donor-acceptor porphyrin possessing Near-IR optical spectra	Dr. Subhadeep Banerjee	DST-FT	Approved Proposed amount [25,20,824]	3 years
56.	Flow investigation through uED-milled metallic micro channels	Dr. G. Karthikeyan	DST-FT	Approved Proposed amount [23,00,000]	3 years
57.	Regulation of hypothalamic gonadotropin releasing hormone expression by putrescine in female rats	Dr. Arnab Banerjee	SERC, New Delhi	Approved Proposed amount [24,48,000]	3 years

### Ongoing Departmental Projects

Title of the Project	Name of the Department	Funding Agency	Sanctioned Amount (Rs)	Duration
Fund for improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	Biological Sciences	DST	29,00,000	5 years
Fund for improvement of S&T Infrastructure in Higher Educational Institutions (FIST)	Physics	DST	49,25,000	5 years
Fund for improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	Mechanical Engineering	DST	40,00,000	5 years
Fund for improvement of S&T Infrastructure in Higher Educational Institutions (FIST)	Chemistry	DST	35,00,000	5 years
Fund for improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	EEE &IE	DST	20,00,000	5 years
Fund for improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	Mathematics	DST	18,75,000	5 years

### Hyderabad Campus:

S.No.	Title of the Project	Principal Investigator	Funding Agency	Department	Sanctioned Amount	Duration
1	Novel Minimal-Solid lubricant Mixture Application Method for Performance Improvement in Turning	Dr. N.S.K Reddy	DST	Mechanical Engg.	3250000	3 years
2	Collaborating for quality teaching and research in the area of computational mechanics	Dr.Chandu Parimi	British Council	Civil Engg.	388350	1year
3	Synthesis & Biological activity of various triazoles as effective antifungal agents	Dr.KVG Chandrasekhar	DBT	Chemistry	1372400	3years
4	On the formation of Dwarf Elliptical Galaxies	Dr. Rahul Nigam	UGC	Physics	540000	2years

S.No.	Title of the Project	Principal Investigator	Funding Agency	Department	Santioned Amount	Duration
5	Application of Micro-Environment Property Desriptor to Study Free Energy Changes in Amyloidogenic Protein Aggregation	Dr. Debashree Bandyopadhyay	UGC	Biological Science	540000	2years
6	Development of Indigenous POC device micro channel / fluidic device for estimation of lipid profile in human plasma / serum	Prof. Suman Kapur	NPMASS	Biological Science	4666700	2years
7	Development of suitably customized polymers and clay based adsorbents for the effective removal of chromium from e-waste	Dr. N Rajesh	DST	Chemistry	4282000	3years
8	Role of adipose in ethanol-induced tissue injury	Dr. Palash Mandal	DST	Biological Sciences	2500000	3years
9	Investigation of magneto-optical effects in composite magneto plasmonic nanostructures for sensing application	Dr.Kannan Ramaswamy	DST	Physics	3270000	3years
10	Delineating the impact growth promoting rhizobacteria on plant polyamine metabolism: novel insights in to plant – PGPR interactions	Dr. Sridev Mohapatra	DST	Biological Sciences	2500000	3years
11	Development of Synthetic Resin Product	Dr. Srikanta Dinda	DST-FT	Chemical Engg.	2200000	3years
12	Transcutaneous delivery of liposomesirna complex to treat skin cancer	Dr. Vamsi Krishna Venuganti	DST	Pharmacy	2926000	3years
13	Development of a cost - effective membrane and DNA chip-based methods for detection of mutations associated with Multiple Drug Resistant-Tuberculosis	Dr. Nagamohan	DST	Biological Sciences	6916000	2years
14	Integrated urban flood management in India: Technology-Driven solutions	Prof. K. S. Raju	ITRA	Civil Engineerin g	1906000	3 years
15	Study of Decoherence and Entanglement in Non Linear Systems and their Application	Dr .K V S Shivchaitanya	DST-FT	Physics	1416000	3 years

S.No.	Title of the Project	Principal Investigator	Funding Agency	Department	Santioned Amount	Duration
16	Novel Biomarker responses to validate acute toxicity of engineered nanoparticles and their physicochemical interactions in earthworm as a model bioindicator of nano (eco) toxicology.	Dr. Shankar Ganesh	DBT (RGYI)	Biological Sciences	1407800	3 years
17	Photocurable organic-inorganic hybrid precursors for the fabrication of metal oxide micro/nanostructures	Dr. Ramakrishan Ganesan	DST FT	Chemistry	2598000	3 years
18	Generalized Convexity, Hermite-Hadamard Inequality on Riemannian Manifolds and their Applications	Dr. Ahlad iqbal	UGC	Mathematics	600000	2years
19	Non -Invasive Delivery of siRNA to treat Melanoma	Dr. VVS Vamsi Krsishna	DBT (RGYI)	Pharmacy	2284800	3 years
20	Synthesis of modified TosMIC & BetMIC for use as key reagents in the synthesis of boronated heterocycles	Dr.Anupam Bhattacharya	CSIR	Chemistry	1755200	3 years
21	Localization of flexible polymer chains on chemically heterogeneous surfaces	Dr.k Sumithra	CSIR	Chemistry	940200	3 years
22	Extracting the fermentation with surfactants to enhance butanol production	Dr.Pradip Baban Rao Dhamole	DBT	Chemical Engg.	2917000	3years
23	Structure Based Rational Design and Synthesis of Mycobacterium Tuberculosis inhibitors	Dr.KV.G.Chandra Sekhar	DST	Chemistry	2200000	3years
24	Elucidating signaling mechanisms in plant responses to drought stress mitigation by beneficial soil bacteria	Dr. Sridev Mohapatra	Seed grant	Biology	1370000	2years
25	Development of personalized DNA markers in breast cancer patients for early diagnosis and prognosis using a non-invasive method.	Dr. K. Naga Mohan	Seed grant	Biology	1350000	2years

## MEMBERS OF VARIOUS BODIES AND COMMITTEES OF THE INSTITUTE

### (A) GENERAL BODY

<i>Chancellor:</i> Dr. Kumar Mangalam Birla	8. Shri Arvind Singh
<i>Pro-Chancellor:</i> Smt. Shobhana Bhartia	<i>Four Alumni Term Members:</i> Vacant
<i>Founding Member:</i> Shri B.K. Birla	<i>Representative of MHRD, Govt. of India:</i> Shri V. S. Pandey
<i>Vice-Chancellor, BITS:</i> Prof. Bijendra Nath Jain	<i>Representative of UGC:</i> Dr. C.E.G. Justo
<i>Members admitted by General Body:</i> 1. Dr. S.S. Badrinath 2. Shri Sidharth Birla 3. Prof. Asis Datta 4. Shri K.C. Jain 5. Smt. Manjushree Khaitan 6. Shri Hemant Kumar 7. Prof. L.K. Maheshwari	<i>Representative of CSIR:</i> Dr. Chandra Shekhar <i>Representative of AICTE:</i> Dr. S.K. Chopra <i>Representative of FICCI:</i> Vacant <i>Non-Member Secretary:</i> Prof. M.M.S. Anand, Registrar

### (B) BOARD OF GOVERNORS

<i>Chancellor:</i> Dr. Kumar Mangalam Birla	<i>Four Nominees of the BET:</i> 1. Shri B.K. Birla 2. Shri Sidharth Birla 3. Shri Hemant Kumar
<i>Pro-Chancellor:</i> Smt. Shobhana Bhartia	<i>Three Members Selected by the General Body:</i> 1. Shri D.N. Patodia 2. Shri Vir Sanghvi
<i>Honorary Treasurer:</i> Vacant	<i>Four Members coopted by the Board of Governors:</i> 1. Smt. Manjushree Khaitan 2. Shri Kris Ramachandran
<i>Vice-Chancellor of BITS:</i> Prof. Bijendra Nath Jain	<i>One Nominee of the Zuari Industries Limited:</i> Shri H.S. Bawa
<i>One Director of Campuses by rotation:</i> Prof. V.S. Rao	<i>Non-Member Secretary:</i> Prof. M.M.S. Anand, Registrar
<i>One Nominee of AICTE:</i> Nomination awaited	
<i>Three Nominees of the Government of India:</i> Nominations awaited	

### **(C) FINANCE COMMITTEE**

*Chancellor:*

Dr. Kumar Mangalam Birla

*Honorary Treasurer:*

Vacant

*One Person nominated by the Board:*

Shri D. N. Patodia

*One Person nominated by the BET:*

Shri Hemant Kumar

*Vice-Chancellor:*

Prof. Bijendra Nath Jain

*Registrar:*

Prof. M.M.S. Anand, Member-Secretary

### **(D) BUILDING AND WORKS COMMITTEE**

*Chairman (Vice-Chancellor):*

Prof. Bijendra Nath Jain

*Members:*

*Director, Pilani Campus:*

Prof. G. Raghurama

*Director, Hyderabad Campus:*

Prof. V.S. Rao

*Director, K.K. Birla Goa Campus:*

Prof. Sanjeev Kumar Aggarwal

*Nominated members (2):*

1. Dr. Anshuman

2. Prof. P.N.K. Rao

*Member-Secretary:*

Prof. M.M.S. Anand, Registrar

### **(E) PURCHASE COMMITTEE**

*Convenor:*

*Unit Chief, CPU:*

Prof. N.V. Muralidhar Rao

*Members:*

*Director:*

Prof. G. Raghurama

*Deputy Directors:*

1. Prof. Ranendra N. Saha

2. Prof. G. Sundar

*Budget officer:*

Shri Mohan Lal

### **(F) FACULTY SELECTION COMMITTEES**

#### **1. University Level Selection Committee:**

- Vice-Chancellor (or his nominee) – Chairman
- Two external experts in the concerned discipline
- Director of one of the 4 campuses – nominated by the Vice-Chancellor
- One of the Chairmen of the Department Level short-listing committee from one of the campuses in the concerned department/discipline
- Dean of Faculty Affairs – Convenor
- Directors of the remaining BITS campuses (Special Invitees)

#### **2. University Level Short-listing Review Committee:**

- Vice-Chancellor (or his nominee) - Chairman
- Directors of Pilani, Goa, Hyderabad Campuses
- Dean of Faculty Affairs - Convenor
- Director, Dubai Campus (Special invitee)



3. **Campus Level Short-listing Review Committee (one for each campus in India)**
  - Director of the campus
  - 2 or more Professors – to be identified by the campus Director
  - Professor In-Charge of Faculty Affairs of the campus
4. **Department Level Application Short-listing Committee (at least 3 members) (one for each campus and for each discipline)**
  - Chairperson – to be nominated by the campus Director from amongst:
    - (a) the HODs, if he/she is a Professor, ELSE
    - (b) Any Professor from the Department, ELSE
    - (c) Any Professor from a related discipline, ELSE
    - (d) Any Professor from the campus
  - All other Professors and Associate Professors from the Department,
  - Additionally up to two Professors from the campus if the members above are fewer than 3 – to be nominated by the campus Director.

**Note:** The short-listing committee will seek the views of all faculty members in the department in its effort to short-list or not short-list a candidate by having them express their opinion at any time, but particularly during the audio-visual interaction with the candidate.

## MEMBERS OF THE SENATE

### *Chairman (Vice-Chancellor):*

Prof. Bijendra Nath Jain (Sr. PROF)

### *Vice-Chairman (Director, Pilani Campus):*

Prof. G. Raghurama (Sr. PROF)

### *Secretary:*

Prof. M.M.S. Anand (PROF)

### *Directors:*

1. Prof. R.K. Mittal (Sr. PROF), Dubai Campus
2. Prof. Sanjeev Kumar Aggarwal (Sr. PROF),  
K.K. Birla Goa Campus
3. Prof. V. S. Rao (Sr. PROF.), Hyderabad Campus

### *Deputy Director:*

Prof. G. Sundar (Sr. PROF), Pilani Campus

### *Deputy Director and Dean:*

Prof. Ranendra N. Saha (Sr. PROF), Pilani Campus

### *Deans:*

#### **University Wide:**

##### ***Pilani Campus***

1. Prof. S. Balasubramaniam (PROF)
2. Prof. S. Gurunarayanan (PROF)
3. Prof. R. Mahesh (PROF)
4. Prof. Ajit Pratap Singh (PROF)
5. Prof. Niranjan Swain (PROF)
6. Prof. Sanjay Kumar Verma (PROF)

##### ***Hyderabad Campus***

1. Prof. Suman Kapur (Sr. PROF)

#### **Campus Wide:**

1. Prof. Niti Nipun Sharma (PROF)
2. Prof. Ajit Pratap Singh (PROF)
3. Prof. Arya Kumar (PROF)

##### ***Hyderabad Campus***

1. Prof. M.B. Srinivas (PROF)

### *Assistant Deans:*

##### ***Pilani Campus***

1. Prof. P. Srinivasan (ASOP)
2. Shri K. Venkatasubramanian (ASTP)

##### ***K.K. Birla Goa Campus***

1. Prof. Sutapa Roy Ramanan (PROF)
2. Dr. Raghunath Ratabole (ASOP)

##### ***Hyderabad Campus***

1. Dr. K.V.G. Chandrasekhar (ASTP)

##### ***Off-Campus Centre***

1. Prof. S. Sindhu (ASOP), *Bangalore*
2. Prof. G. Venkiteswaran (ASOP), *Chennai*

### *Professors (PROF):*

#### ***Pilani Campus***

1. Prof. Rahul Banerjee
2. Prof. Surekha Bhanot
3. Prof. V.K. Chaubey
4. Prof. Ashis Kumar Das
5. Prof. Mani Sankar Dasgupta
6. Prof. Balram Dubey
7. Prof. Chandra Bhan Gupta
8. Prof. Rajiv Gupta (Sr. PROF)
9. Prof. S. Kanan
10. Prof. Dalip Kumar
11. Prof. Rajiv Kumar
12. Prof. L.K. Maheshwari (PROF-Emeritus)
13. Prof. Rashmi Ranjan Mishra
14. Prof. Janardan Prasad Misra
15. Prof. Rajendra Prasad Pareek
16. Prof. Bandi Venkata Prasad
17. Prof. Kodali Rambabu
18. Prof. N.V. Muralidhar Rao
19. Prof. Ram Kinkar Roy
20. Prof. Ashoke Kumar Sarkar (Sr. PROF)
21. Prof. Shamsheer Bahadur Singh
22. Prof. S.C. Sivasubramanian

#### ***K.K. Birla Goa Campus***

1. Prof. Sunil Bhand
2. Prof. Aditya Prasad Koley
3. Prof. Arun V. Kulkarni
4. Prof. K.E. Raman (Sr. PROF)

#### ***Hyderabad Campus***

1. Prof. Souril Banerjee
2. Prof. N. Rajesh
3. Prof. Komaragiri Srinivasa Raju
4. Prof. Addepalli Ramu
5. Prof. P.N.K. Rao
6. Prof. Srinivasa Prakash Regalla
7. Prof. D. Sriram
8. Prof. S. Swaminathan
9. Prof. P. Yogeeswari

#### ***Dubai Campus***

1. Prof. Priti Bajpai
2. Prof. S. Karthiyayini
3. Prof. Dawood Jalaluddin Shariff
4. Prof. S. Swaminathan

5. Prof. Thoppil George Thomas
6. Prof. G. Vijaya

*Associate Professors (ASOP):*

**Pilani Campus**

1. Prof. Hari Om Bansal
2. Prof. Sanjiv Kumar Choudhary
3. Prof. Shibasish Chowdhury
4. Prof. Anshuman Dalvi
5. Prof. R.P. Deepa
6. Prof. Arun Kumar Giri
7. Prof. Poonam Goyal
8. Prof. Lalita Gupta
9. Prof. Subhash Narayan Karbelkar
10. Prof. Anil Kumar
11. Prof. Sanjeev Kumar
12. Prof. Kusum Lata
13. Prof. Pushp Lata
14. Prof. Arun Maity
15. Prof. Dilip Kumar Maiti
16. Prof. Hitesh Datt Mathur
17. Prof. Sai Jagan Mohan
18. Prof. Sudeept Mohan
19. Prof. Debi Datt Pant
20. Prof. Mukesh Kumar Rohil
21. Prof. Bijay Kumar Rout
22. Prof. Srikanta Routroy
23. Prof. Kumar Neeraj Sachdev
24. Prof. Sangeeta Sharma

**K.K. Birla Goa Campus**

1. Prof. K.R. Anupama
2. Prof. Dibakar Chakraborty
3. Prof. Ranjan Dey
4. Prof. Narendra Nath Ghosh
5. Prof. Mridula Goel
6. Prof. Neena Goveas
7. Prof. D.M. Kulkarni
8. Prof. Sampatrao D. Manjare
9. Prof. Shrikanth Mutnuri
10. Prof. Vijayashree Nayak
11. Prof. Patincharath Nandakumar
12. Prof. Bhavana P.
13. Prof. Jagarlamudi Venkateswara Rao
14. Prof. Utpal Roy
15. Prof. Pravin M. Singru

**Hyderabad Campus**

1. Prof. A. Michael Alphonse
2. Prof. Amit Kumar Gupta
3. Prof. Chittaranjan Hota
4. Prof. Jeevan Jaidi

5. Prof. Vidya Rajesh
6. Prof. V.R. Vinayaka Rao
7. Prof. N. Suresh Kumar Reddy
8. Prof. Morapakala Srinivas
9. Prof. P.K. Thiruvikraman
10. Prof. A. Vasani

**Dubai Campus**

1. Prof. Somasundaram Arumugam
2. Prof. Maneesha Bhagchandani
3. Prof. Adhir Baran Chattopadhyay
4. Prof. Tapan Kumar Datta
5. Prof. Vijaya Ilango
6. Prof. Kavita Sunil Jerath
7. Prof. Ram Karthikeyan
8. Prof. R. Anand Kumar
9. Prof. K. Kumar
10. Prof. A.M. Surendra Kumar
11. Prof. Sankaram M.
12. Prof. B. Muralidharan
13. Prof. R. Udayakumar
14. Prof. A. Srinivasa Rao
15. Prof. Krishna Kumar Singh
16. Prof. B. Vijayakumar

*Heads of Departments:*

**Pilani Campus**

1. Prof. Geetha B (ASOP)
2. Prof. Debashish Bandyopadhyay (PROF)
3. Prof. Anil Kumar Bhat (PROF)
4. Prof. Navneet Goyal (PROF)
5. Prof. Anu Gupta (ASOP)
6. Dr. Suresh Gupta (ASTP)
7. Prof. Hemant Ramanlal Jadhav (ASOP)
8. Prof. Pradipkumar Haribhau Keskar (ASOP)
9. Prof. Manoj Kumar (ASOP)
10. Prof. Jitendra Panwar (ASOP)
11. Prof. Subit Kumar Saha (PROF)
12. Prof. Kuldip Singh Sangwan (ASOP)
13. Dr. Arvind Sudarsan (ASTP)

**K.K. Birla Goa Campus**

1. Dr. Raghu Nath Behera (ASTP)
2. Dr. Shibu Clement (ASTP)
3. Prof. Gaurav Dar (ASOP)
4. Prof. Mukund Keshavrao Deshmukh (PROF)
5. Prof. Bharat M. Deshpande (ASOP)
6. Prof. Meenal Anil Kowshik (ASOP)
7. Prof. S. Krishnaswamy (ASOP)
8. Prof. Prasanna Kumar N. (ASOP)
9. Dr. Debasis Patnaik (ASTP)
10. Prof. Meenakshi Raman (PROF)

**Hyderabad Campus**

1. Dr. Jagdeesh Anmala (ASTP)
2. Dr. R. Gururaj (ASTP)
3. Dr. Balaji Krishnamurthy (ASTP)
4. Dr. P. Lalitha (ASTP)
5. Prof. Bivudutta Mishra (ASOP)
6. Dr. M.G. Prasuna (ASTP)
7. Dr. Kannan Ramaswamy (ASTP)
8. Prof. Y.V. Daseswara Rao (ASOP)
9. Prof. K. Sumithra (ASOP)
10. Prof. Ramakrishna Vadrevu (ASOP)
11. Dr. V. Vamsi Krishna Venuganti (ASTP)
12. Prof. Y. Yoganandam (PROF)

**Dubai Campus**

1. Prof. Bharat Bhushan Gulyani (ASOP)
2. Prof. Ramadoss Roop Kumar (PROF)
3. Prof. C. Periasamy (PROF)
4. Prof. D.V. Prasad (ASOP)
5. Prof. Mary Lourde R. (ASOP)
6. Prof. Shah Jabeen Shazi (ASOP)
7. Prof. Neeru Sood (ASOP)
8. Prof. S. Vadivel (PROF)

**Coopted Members:**

1. Ms. Madhuri Bayya (LECT), *Hyderabad Campus*
2. Dr. Judith Maria Braganca (ASTP), *K.K. Birla  
Goa Campus*
3. Shri Manoj Kannan (LECT), *Pilani Campus*
4. Dr. Biju K.R. (ASTP), *K.K. Birla Goa Campus*
5. Dr. Devanuri Jayakrishna (ASTP), *Hyderabad  
Campus*
6. Dr. Leela Rani (ASTP), *Pilani Campus*

**Librarians:**

1. Dr. Ishwara Bhat M., *Pilani Campus*
2. Shri K.N. Sheshadri, *Dubai Campus*

**Workshop Superintendent:**

Shri G.J. Desai, *K.K. Birla Goa Campus*

**Chief Wardens:**

1. Dr. Champak Baran Das (ASTP),  
*Pilani Campus*
2. Prof. Dibakar Chakraborty, *K.K. Birla  
Goa Campus*
3. Dr. Kumar Pranav Narayan,  
*Hyderabad Campus*
4. Dr. N.K. Miller Jothi, *Dubai Campus*

**Admissions Officer:**

Prof. Ajit Pratap Singh (PROF)

**Placement Officer:**

Prof. Mani Sankar Dasgupta (PROF)

**External Members:**

1. Dr. Malini Balakrishnan, *New Delhi*
2. Dr. S. Ganguli, *Dehradun*
3. Dr. Rishi P. Jamdagni, *Bhiwani*
4. Dr. Chandra Shekhar, *Pilani*

**Student Members:**

1. Shri Aayush Agarwal, 2010A4PS312P
2. Shri Arnav Jain, 2010B3A7424P
3. Shri Aatif Mehraj Kababi, 2012H129008P
4. Shri T Harsha Vardhan Reddy,  
2010A4PS131P

## MEMBERS OF THE SENATE APPOINTED BODIES

### (A) RESEARCH BOARD

*Chairman (Vice-Chancellor):*

Prof. Bijendra Nath Jain

*Vice Chairman (Dean, ARD):*

Prof. Sanjay Kumar Verma

*Secretary (Registrar):*

Prof. M.M.S. Anand

*Directors of all BITS Campuses:*

1. Prof. G. Raghurama
2. Prof. R.K. Mittal
3. Prof. Sanjeev Kumar Aggarwal
4. Prof. V.S. Rao

*Deputy Directors:*

1. Prof. Ranendra N. Saha
2. Prof. G. Sundar

*Dean, Sponsored Research & Consulting:*

Prof. Ranendra N. Saha

*Chief Research & Development Officer:*

Shri S.N. Zindal

*Faculty Members (8):*

1. Prof. Anil Kumar Bhat, *Pilani Campus*
2. Prof. Hemant R. Jadhav, *Pilani Campus*
3. Prof. Bijay Kumar Rout, *Pilani Campus*
4. Dr. Ram Shanker Patel, *K.K. Birla Goa Campus*
5. Dr. Ramesha C.K., *K.K. Birla Goa Campus*
6. Prof. N. Rajesh, *Hyderabad Campus*
7. Prof. Y. Yoganandam, *Hyderabad Campus*
8. Prof. Neeru Sood, *Dubai Campus*

### (B) ACADEMIC COUNSELLING BOARD

*Chairman : Dean , ARCD*

Prof. Niti Nipun Sharma

*Dean, ID:*

Prof. Ajit Pratap Singh

*Dean, SWD:*

Prof. Arya Kumar

*Faculty Members (2):*

1. Dr. Lalita Gupta
2. Prof. Ashoke Kumar Sarkar

*Student Members (2):*

1. Shri Siddhant Jain, 2010B3A7506P
2. Shri Jayanth N. Koushik, 2010A7PS021P

### (C) ACADEMIC MONITORING BOARD

*Chairman : Dean, WILPD:*

Prof. S. Gurunarayanan

*Assistant Deans, WILPD:*

1. Dr. Raghunath Ratabole
2. Shri K. Venkatasubramanian
3. Dr. G. Venkiteswaran

*Dean, ID:*

Prof. Ajit Pratap Singh

*Dean, PSD:*

Prof. Niranjan Swain

*Dean, ARD:*

Prof. Sanjay Kumar Verma

*Dean, ARCD:*

Prof. Niti Nipun Sharma

### (D) ACADEMIC REGULATIONS CLAUSE 1.08 COMMITTEE

*Dean, ID:*

Prof. Ajit Pratap Singh

*Dean, ARCD:*

Prof. Niti Nipun Sharma

*Dean, PSD:*

Prof. Niranjan Swain

*Dean, ARD:*

Prof. Sanjay Kumar Verma

*Dean, EDD:*

Prof. Ranendra N. Saha

*Dean, WILPD:*

Prof. S. Gurunarayanan

*Admissions Officer:*

Prof. Ajit Pratap Singh

Convenorship rotates amongst these members depending on the item to be discussed.

## **(E) HIGHER DEGREE COUNSELLING COMMITTEE**

*Convenor: Dean, ARD:*

Prof. Sanjay Kumar Verma

*Dean, PSD:*

Prof. Niranjan Swain

*Dean, ARCD:*

Prof. Niti Nipun Sharma

*Dean, ID:*

Prof. Ajit Pratap Singh

*Dean, WILPD:*

Prof. S. Gurunarayanan

*Chief, IPCU:*

Prof. Janardan Prasad Misra

## **(F) DOCTORAL COUNSELLING COMMITTEE**

*Convenor: Dean, ARD:*

Prof. Sanjay Kumar Verma

*Dean, ID:*

Prof. Ajit Pratap Singh

*Dean, ARCD:*

Prof. Niti Nipun Sharma

*Dean, PSD:*

Prof. Niranjan Swain

*Dean, WILPD:*

Prof. S. Gurunarayanan

*Faculty Members (2):*

1. Dr. Raj Kumar Gupta
2. Dr. Hemant R. Jadhav

## **(G) STANDING COMMITTEE FOR STUDENTS' DISCIPLINE**

### **I. Pilani Campus:**

*Chairman : Dean , SWD*

Prof. Arya Kumar

*Chief Warden:*

Dr. Champank Baran Das

*Faculty Members(2):*

1. Dr. Amit Kumar Verma
2. Dr. Lalita Gupta

*Student Member (1):*

Mr. Kurian J. Alapatt, 2010B1A2816P

### **II. K.K. Birla Goa Campus:**

*Chairman : Faculty-in-Charge, SWD*

Dr. Lucy J. Gudino

*Chief Warden:*

Dr. C.K. Ramesha

*Faculty Members (2):*

1. Dr. Judith Maria Braganca
2. Mr. Mangesh Bedekar

*Student Member (1):*

Mr. Ajay Alex Abraham, 2010B1A1578G

### **III. Hyderabad Campus:**

*Chairman : Faculty-in-Charge, SWD:*

Dr. S.S. Deshmukh

*Chief Warden:*

Dr. Kumar Pranav Narayan

*Two Faculty Members (2):*

1. Dr. K.V.G. Chandra Sekhar
2. Dr. Vidya Rajesh

*Student Member (1):*

Mr. Anshool Singh, 2010A1PS451H

### **IV. Dubai Campus:**

*Chairman : Dean , SWD:*

Dr. Priti Bajpai

*Chief Warden:*

Dr. N.K. Miller Jothi

*Two Faculty Members (2):*

1. Dr. A. Somasundaram
2. Dr. K. Nithyanandan

*Student Member (1):*

Mr. Sanchit Sekhwal, 2009AAPS252U

## (H) NOMINATIONS COMMITTEE

*Chairman (Vice-Chairman of the Senate):*

Prof. G. Raghurama

*Deputy Directors:*

Prof. Ranendra N. Saha

Prof. G. Sundar

*Members of Senate (4)*

1. Prof. Ashoke Kumar Sarkar, *Pilani Campus*
2. Prof. Srinivasa Prakash Regalla, *Hyderabad Campus*
3. Prof. Meenakshi Raman, *K.K. Birla Goa Campus*
4. Dr. G. Vijaya, *Dubai Campus*

*Secretary:*

Prof. M.M.S. Anand, Registrar

## (I) LIBRARY COMMITTEE

### I. Pilani Campus:

S.No.	Department	Name of the member
1.	Biological Sciences	Dr. Vishal Saxena
2.	Civil Engineering	Dr. Shuvendu Narayan Patel
3.	Chemical Engineering	Dr. Banasri Roy
4.	Chemistry	Dr. Paritosh Shukla
5.	Computer Science & Information Systems	Dr. Sundaresan Raman
6.	Off-Campus Work-Integrated Learning Programmes	Dr. Mukesh Kumar Rohil
7.	Economics & Finance	Shri Arun Kumar Vaish
8.	Electrical & Electronics Engineering & Instrumentation	Dr. Rikmantra Basu
9.	Humanities and Social Sciences	Dr. Rajneesh Choubisa
10.	Mathematics	Dr. Devendra Kumar
11.	Mechanical Engineering	Dr. Amol M. Marathe
12.	Management	Dr. R. Raghunathan
13.	Pharmacy	Dr. Gaikwad Anil Bhanudas
14.	Physics	Dr. Madhukar Mishra
Dr. Ishwara Bhat M. (Librarian) - Chairman of the Library Committee		

### II. K.K. Birla Goa Campus:

1.	Biological Sciences	Dr. Kundan Kumar
2.	Chemical Engineering	Dr. Jegatha Nambi Krishnan
3.	Chemistry	Dr. K.P. Jayadevan
4.	Computer Science & Information Systems	Dr. Sanjay Kumar Sahay
5.	Economics	Ms. Archana Srivastava
6.	Electrical & Electronics Engineering & Electronics and Instrumentation	Dr. Ramesha C.K.
7.	Humanities and Social Sciences	Dr. Gyan Prakash
8.	Mathematics	Dr. Mayank Goel
9.	Mechanical Engineering	Dr. Rajaram Lakkaraju
10.	Physics	Dr. Madhu Kallingalthodi
Dr. Anuradha V (Assistant Librarian) - Chairman of the Library Committee		

### III. Hyderabad Campus:

1. Biological Sciences	Dr. K. Naga Mohan
2. Civil Engineering	Dr. V.R. Vinayaka Rao
3. Chemical Engineering	Dr. Asma Ahmed
4. Chemistry	Dr. Sounak Roy
5. Computer Science & Information Systems	Dr. Aruna Malapati
6. Economics and Finance	Dr. Durgesh Chandra Pathak
7. Electrical & Electronics Engineering	Shri Ananth Saradhi
8. Humanities and Social Sciences	Dr. Aruna Lolla
9. Mathematics	Dr. K. Venkata Ratnam
10. Mechanical Engineering	Dr. M. Srinivas
11. Pharmacy	Dr. Balaram Ghosh
12. Physics	Dr. Asrarul Haque
Shri M.S. Uday Kumar (Deputy Librarian) - Chairman of the Library Committee	

### IV. Dubai Campus:

1. Biotechnology	Dr. Trupti Gokhale
2. Chemical Engineering	Dr. B. Prakash Kumar
3. Computer Science	Dr. Sujala Shetty
4. Electrical & Electronics Engineering	Dr. Gomathi Bhavani
5. General Science	Dr. Russalraj
6. Humanities and Social Sciences	Dr. Lajwanti
7. Mechanical Engineering	Dr. R. Udayakumar
Shri K.N. Sheshadri (Librarian) - Chairman of the Library Committee	

### (J) ADMISSION COMMITTEE

*Vice-Chancellor (Chairman):*

Prof. Bijendra Nath Jain

*Members:*

*Director, Pilani Campus:*

Prof. G. Raghurama

*Director, K.K. Birla Goa Campus:*

Prof. Sanjeev Kumar Aggarwal

*Director, Hyderabad Campus:*

Prof. V.S. Rao

*Director, Dubai Campus:*

Prof. R.K. Mittal

*Deputy Director (Off-campus Programmes):*

Prof. G. Sundar

*Dean/Associate Dean (Admissions), Pilani Campus*

*(Convenor):*

Prof. Ajit Pratap Singh (Dean)



## MEMBERSHIP

The Institute continued to be a member of the following distinguished bodies:

1. Association of Commonwealth Universities, *London*.
2. Association of Indian Universities, *New Delhi*.
3. Current Science Association, *Bangalore*.
4. Federation of Indian Chambers of Commerce and Industry – Higher Education Network, *New Delhi*.
5. India International Centre, *New Delhi*.
6. Indian Association of Social Science Institutions, *New Delhi*.
7. Indian Distance Education Association, *Hyderabad*.
8. Indian Institute of Foreign Trade, *New Delhi*.
9. Indian Society for Technical Education, *New Delhi*.
10. Institution of Communication Engineers and Information Technologists, *New Delhi*.
11. International Association of Universities, *Paris*.
12. International Council for Open and Distance Education, *Norway*.
13. National Council of Applied Economic Research, *New Delhi*.
14. Petrotech Society, *New Delhi*.
15. Pharmacy Council of India, *New Delhi*.
16. The Institution of Engineers (India), *Kolkata*.
17. World Association for Cooperative Education, *Boston, USA*.

**BITS PILANI – PILANI CAMPUS****B1.1 SENIOR OFFICERS OF THE INSTITUTE****DIRECTOR**

Prof. G. Raghurama

**DEPUTY DIRECTORS**

1. Prof. Ranendra N. Saha
2. Prof. G. Sundar

**REGISTRAR**

Prof. M.M.S. Anand

**New Administrative appointments**

The following administrative appointments were made during the year:

- A. Following have been appointed as Professor In-charges of the Division mentioned against their names.

S.No.	Name	Divisions	w.e.f.
1.	Prof. Sanjeev Kumar	Sponsored Research and Consulting	03-09-2013
2.	Prof. Srikanta Routroy	Instruction	05-11-2013
3.	Prof. Bijay Kumar Rout	Academic Registration & Counselling	05-11-2013

- B. Following have been appointed as Chief of the Unit mentioned against his name for the residual term ending on 31-08-2014.

S.No.	Name	Unit	w.e.f.
1.	Prof. N.V. Muralidhar Rao	Centralized Purchases	04-12-2013

- C. Prof. Ajit Pratap Singh is appointed as Dean of Admissions (University Wide) with effect from 20<sup>th</sup> December 2013 upto 15-06-2015.
- D. Dr. Champak Baran Das is appointed as Chief Warden with effect from 3<sup>rd</sup> September 2013.
- E. The following faculty members have been appointed as Resident Warden of the hostels noted against their names with effect from 1<sup>st</sup> August 2013.

S.No.	Name	Hostel
1.	Prof. Sanjiv Kumar Choudhary	Krishna Bhawan
2.	Prof. Hari Om Bansal	Gandhi Bhawan
3.	Prof. Srikanta Routroy	Shankar Bhawan
4.	Prof. Sai Jagan Mohan	Vyas Bhawan
5.	Prof. Kumar Neeraj Sachdev	Budh Bhawan & Malviya Bhawan-D Block
6.	Dr. Rajesh Prasad Mishra	Ashok Bhawan & Bhagirath Bhawan
7.	Mr. Jitendra Singh Rathore	Vishwakarma Bhawan
8.	Prof. Hitesh Datt Mathur	Srinivasa Ramanujan Bhawan
9.	Dr. R Raghunathan	Rana Pratap Bhawan

10.	Prof. Surekha Bhanot	Meera Bhawan
11.	Prof. Kusum Lata	Meera Bhawan
12.	Prof. Champak Baran Das	Malviya Bhawan – A,B & C Blocks

The names and designations of senior officers of Pilani campus are given in 'Annexure B1-16'.

## B1.2 ADMISSIONS

The number of students admitted in each of the semester is given below.

	Integrated First Degree Programmes	Higher Degree Programmes	Doctoral Programmes (PhD)	Total
Second Semester 2011-2012	–	–	38(14)	<b>38(14)</b>
First Semester 2012-2013	846(122)	265(74)	43(19)	<b>1177(248)</b>

The programme-wise details are given in 'Annexure B1-1'.

## B1.3 DUAL DEGREES AND TRANSFERS

### Dual Degree

During the Academic year 2013-2014, 220 students were permitted to work concurrently for two first degrees under Dual Degree scheme. See 'Annexure B1-2' for details.

## B1.4 ACADEMIC CALENDAR

The Academic year of the Institute is divided into two semesters and a summer term.

	Starting Date	Ending date	Number of instruction days (excluding examination days)
<b>Second Semester 2012-2013</b>	07-01-2013	14-05-2013	84
<b>First Semester 2013-2014</b>	01-08-2013	14-12-2013	88
<b>Summer Term 2012-2013</b>	22-05-2013	16-07-2013	48
<b>Practice School II 2012-13 (II Sem. 2012-13)</b>	07-01-2013	14-06-2013	130
<b>Practice School I 2012-13</b>	22-5-2013	13-07-2013	46
<b>Practice School II 2013-14 (First Sem. 2013-14)</b>	04-07-2013	14-12-2013	134

## B1.5 COURSES OFFERED

The number of courses, offered during the year 2013 is as follows:

	Number of Courses offered
II Semester 2012-2013	448
I Semester 2013-2014	570
Summer Term 2012-2013	8

The list of new courses introduced during 2013 are given in 'Annexure B1-8'.

### Project-oriented Courses

During this year a large number of students worked on time-bound projects of various types. The information about the projects done and the names of the students who worked on the projects and the names of instructors are given in *Annexure B1-7*.

### B1. 6 REGISTRATION OF STUDENTS

The registration processes for both the semesters was completed on the first day of each semester.

	Number of students registered
Second Semester 2012-2013	4309
First Semester 2013-2014	4463
Summer Term 2012-2013	866

Details of Registration of students for the First Semester 2013-2014 are given in '*Annexure B1-3*'.

### B1.7 ACADEMIC AND PROFESSIONAL COUNSELLING

During the year, the Academic Counselling Board, estimated the extent to which students under its purview fell short of the minimum academic performance, drew up a time-frame within which afflictions were to be removed, determined the package of courses for their registration in each semester and laid down the necessary stipulations for achieving intermediate targets. It further monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of On-campus students under its purview during the year is given below:

	II Semester 2012-2013	I Semester 2013-2014
1. Total number of students under the purview of ACB at the beginning of the semester	201	176
2. No. of students declared out of its purview at the end of the semester	64	107
3. No. of students who left the Institute during the semester	02	1
4. No. of new students who came under the purview of ACB at the end of the semester	41	58
5. Total No. of students under the purview of ACB during the next semester	176	126

### B1.8 AWARD OF DEGREES AND MEDALS

#### (a) Award of Degrees

During the year 161 degrees were awarded in the Board of Governors meeting held on 20.03.2013 (72<sup>nd</sup> Award) and 1225 degrees were awarded on 12.07.2013 (73<sup>rd</sup> Award), through a Circulatory Resolution. Statistical details of these degrees are given in '*Annexure B1-4*'.

Since 73<sup>th</sup> award, more students have become eligible for the award of Degrees. These are 78 Degrees for 74<sup>th</sup> Award, details of which are given in '*Annexure B1-5*'.

**(b) Award of Medals**

For Academic Year 2012-2013

The list of students who were awarded various medals, for the students graduated at the end of First Semester, Second Semester and Summer Term of the academic year 2012-2013 in the following table:

S.No.	ID.No.	Name	Sex	CGPA Obtained	Position Obtained	Type of Medal to be Awarded
Integrated First Degree Programmes (No. of students: 823)						
1.	2009A3PS028P	Swapnil Dineshchandra Haria	M	10.00	FIRST	GOLD
2.	2009A7PS285P	Roney Michael	M	9.85	SECOND	SILVER
3.	2009A3PS068P	Neha Mittal	F	9.84	THIRD	BRONZE

**B1.9 CAMPUS INTERVIEWS AND PLACEMENT**

Number of companies which conducted campus interviews	156
No of interviews	1650
No of offers made	902

The statistics (discipline-wise) and the list of organizations which conducted campus interviews during the year is given in 'Annexure B1-6.

**Employment of Graduates during the Year 2013**

Programme	Number graduated	Employed/ Higher Studies	Unemployed	Those neither informed nor sought help in placement
<b>On-Campus Programmes</b>				
<b>B.E.(Hons.)</b>				
Chemical	71	63	3	5
Civil	71	53	2	16
Computer Science	126	117	0	9
EEE	124	117	1	6
Electronics & Instrumentation	79	73	1	5
Mechanical	115	103	2	10
<b>B.Pharm</b>	34	22	3	9
<b>M.Sc.(Hons.)</b>				
Bio. Sciences	25	20	2	3
Chemistry	36	33	1	2
Economics	36	32	1	3
Mathematics	44	39	1	4
Physics	44	38	2	4

Programme	Number graduated	Employed/ Higher Studies	Unemployed	Those neither informed nor sought help in placement
<b>M.Sc.(Tech.)</b>				
Engineering Technology	9	7	0	2
General Studies	13	5	2	6
Information Systems	61	56	0	5
Finance	16	6	1	9
<b>M.E.</b>				
Biotechnology	11	0	3	8
Chemical	10	5	2	3
Chemical (Spl. In Petrochem)	7	0	3	4
Civil (Spl. in Structural Engg.)	23	8	2	13
Communication Engg.	13	6	1	6
Computer Science	18	15	1	2
Design Engg.	8	1	1	6
Elect Power Electro. & Drives	5	1	2	2
Embedded System	7	3	2	2
Manufacturing Systems Engg.	7	3	1	3
Mechanical	11	9	2	0
Microelectronics	15	13	1	1
Software Systems	22	18	1	3
<b>M.Pharm</b>	11	2	2	7
<b>M.Pharm.</b> (Spl. In Pharmaceutics)	10	1	3	6
<b>M.Pharm.</b> (Spl. Pharmaceutical Chemistry)	11	5	1	5
<b>MBA</b>	46	28	4	14
<b>Total</b>	<b>1139</b>	<b>902</b>	<b>53</b>	<b>183</b>

**B1.10 DEPARTMENT-WISE REPORT**

In the following pages, a brief summary of the main activities and achievements of different departments of the campus are highlighted.

**B1.10.1 Department: Biological Sciences**

Number of faculty members (as on 31 December 2013)

<b>Senior Professors, Professors</b>	02
<b>Associate Professors</b>	05
<b>Assistant Professors</b>	14
<b>Lecturers</b>	02
<b>Visiting Faculty (Adjunct Faculty)</b>	01

**Head of the Department:** Prof. Jitendra Panwar

**Contact details:** jpanwar@pilani.bits-pilani.ac.in

**Number of PhD Scholars:** 44 (including Part Time Students)

**Number of RA:** 02 (One DST Women Scientist and One DST Young Scientist)

**Ph.D. Thesis Submitted during the year:** 04

1. Deepak Palakpati (2004PHXF422P), Thesis Title: Development of rRNA or rRNA gene based comprehensive diagnostic system for the species-specific detection of malaria parasites *Plasmodium falciparum*, *Plasmodium vivax* and *Plasmodium malariae* and its evaluation.
2. Sachi Singh (2003PH29088P), Thesis Title: Phytochemical analysis and localization of bioactive compounds in *Prosopis juliflora*.
3. Shaifali Gurjar (2005PHXF412), Thesis Title: Screening and mechanism based study for the use of natural products for treating obesity.
4. Vandhana S. (ID: 2007PHXF426P), Thesis Title: Targeting lipogenesis in retinoblastoma: Evaluation of chemical inhibitors of fatty acid synthase (FASN) as anti-cancer agents.

**A. SPONSORED RESEARCH ACTIVITIES:****1. Ongoing projects:**

1. (PI: Jitendra Panwar) "Nano technology for enhanced utilization of native-phosphorous by plants and higher moisture retention in arid soils" Funding Agency: Indian Council of Agricultural Research (ICAR), Govt. of India, New Delhi; Sanctioned Amount: 6.147119 Crore (41.539 Lakh); Duration: 6 Years (2008-2014).
2. (PI: Jitendra Panwar) "Mechanistic studies on extracellular biosynthesis of metal nanoparticles" Funding Agency: Department of Science & Technology (DST), Govt. of India, New Delhi; Sanctioned Amount: 45.5 Lakh; Duration: 3 Years (2013-2016).
3. (PI: Lalita Gupta) "Characterization of immune signaling pathway in Anopheles mosquitoes" Funding Agency: Department of Science & Technology (DST), Govt. of India, New Delhi; 21.2 Lakhs, Duration: 3 years (2012-2015).
4. (PI: Pankaj Kumar Sharma) "Phytochemical and Metabolic Characterization of *Prosopis cineraria* pods (sangri) as potential nutraceuticals" Funding Agency: SERB- Department of Science & Technology (DST), Govt. of India, New Delhi; Sanctioned amount Rs. 21.3 Lakhs. Duration: 3 years (2012-2015)
5. (PI: Prabhat Nath Jha, Co PI: S.K. Verma, Rajesh Mehrotra,) "Molecular Characterization of ACC (1-aminocyclopropane-1-carboxylate) Deaminase Activity of Associative Bacteria Isolated

- from Plants of Desert of Rajasthan". Funding Agency: Department of Biotechnology, Govt of India, New Delhi; Sanctioned amount: 41.35 Lakh. Duration: 3 years (2012-2015).
6. (PI: Rajdeep Chowdhury) "Role of Pro-inflammatory Cytokines in Epithelial to Mesenchymal Transition in Hepatocellular Carcinoma". Funding Agency: Research Initiation Grant, BITS Pilani; Sanctioned amount: 2 Lakhs; Duration: 2 years (2013-2015).
  7. (PI: Rajdeep Chowdhury) "Role of Hippo Signaling Pathway Components in Autophagy Regulation in Hepatocellular Carcinoma." Funding Agency: SERB- Department of Science & Technology (DST), Govt. of India, New Delhi; Sanctioned amount: 24 Lakhs; Duration: 3 years (2013-16).
  8. (PI: Rajdeep Chowdhury) "Identifying microRNA Signatures Associated with Autophagy Induced Chemoresistance in Hepatocellular Carcinoma". Funding Agency: UGC, New Delhi, India, Sanctioned amount: 6 lakhs Duration: 2013-15.
  9. (PI: Sandhya Mehrotra): SERB fast track project entitled, "Analyzing structural and functional evolutionary relationship between RubisCO and carbon concentrating mechanism proteins". Funding agency: SERB- Department of Science and Technology, Govt of India. Sanctioned amount: 23.96 Lakhs. Duration; 3 years (2013-16).
  10. (PI: Sanjeev Kumar, Co-PI: Lalita Gupta) "Molecular characterization of *Anopheles stephensi* guts epithelial peroxidases and their role in modulating immunity against bacterial and fungal antigens" Funding Agency: Department of Science and Technology, New Delhi, Sanctioned amount: 47.18 Lakhs, Duration: 3 years (2012-15).
  11. (PI: Santosh Kumar Padhi): "Enzymatic kinetic resolution of racemic amidoalkyl naphthols and their derivatives." Funding Agency: Research Initiation Grant, BITS Pilani, Sanctioned amount 2.00 lacs; Duration: 2 years (2012-2014).
  12. (PI: Santosh Kumar Padhi): "Enzyme Catalyzed Kinetic Resolution of (a) Racemic Amidoalkyl naphthols and (b) Racemic 1-Amidomethyl-Imidazo[1,2-a]Pyridines" Funding Agency: UGC, New Delhi, India, Sanctioned Amount : 6 Lakhs; Duration: 2 years (2013 - 2015).
  13. (PI: Santosh Kumar Padhi) : "Engineering *Baliospermum montanum* Hydroxynitrile lyase for Potential Synthetic and Industrial Applications" Funding Agency : Science & Engineering Research Board (SERB) -New Delhi, India, Sanctioned amount : 25 Lakhs ; Duration:3 years (2013 - 2016).
  14. (PI: Sudeshna Mukherjee) "A mechanistic analysis of the role of pro-inflammatory cytokines in induction of epithelial to mesenchymal transition in hepatocellular carcinoma", Funding agency: DST FAST Track (Young Scientist), Sanctioned amount: 17 Lakhs; Duration: 3 years (2013-16).
  15. (PI: Monalisa Mishra) "Role of conserved oligomeric golgi complex (COG7) gene in the morphogenesis of hearing organ of *Drosophila*", Funding Agency: Department of Science and Technology, India. Sanctioned amount: 23.75 lakhs, Duration: 3 years.
  16. (PI: Monalisa Mishra) "Role of PKD in the eye development of *Drosophila*", Funding Agency: UGC, New Delhi; Sanctioned amount: 6 lakhs; Duration: 2 years.
  17. (PI: Praphulla C Shukla): "Identification of microRNAs Affecting LCAT and apoB-100 during Inflammatory Stress", Funding Agency: UGC, New Delhi; Sanctioned amount: 6 Lakhs; Duration: 2 years.
  18. (PI: Shilpi Garg): "Analysis of Genetic diversity of malaria parasite using genetic and microsatellite markers from Bikaner, India." Funding agency: Research Initiation Grant, BITS Pilani, Sanctioned amount: 2 lakhs; Duration: 2 years (2012-2014).
  19. (PI: Prameela Jha): "Endophytic bacteria mediated phytoremediation of organic pollutants" Funding Agency: Department of Science and technology, India. Sanctioned amount: 25.10 lakhs; Duration: 3 years (2012-2015).
  20. (PI: P.R. Deepa) "To Investigate the Effect of Fatty Acid Synthase (FASN) siRNA in a FASN expressing cancer cell line"; Funded by: ICMR, New Delhi; Grant: ~24 Lakhs; Duration: 3 years (2011-2014).
  21. (PI: P.R. Deepa) "Identification of potential molecular inhibitors of all catalytic domains of Fattyacid synthase (FASN) at the enzyme activity and gene expression level"; Funded By:



Department of Biotechnology (DBT), Govt. of India; Grant: Rs. 33.67 lakhs; Duration: 3 years (2012 –2015).

22. (Co-PI: P.R. Deepa) "Cardiovascular Disease in human population: Mathematical modeling and analysis of its incidence, risk factors, and preventive strategies"; Funded by: UGC, New Delhi; Grant: 8.44 Lakhs; Duration: 3 Years (2011- 2014).

## 2. Projects sanctioned during the year 2013.

1. (PI: Monalisa Mishra) "Role of conserved oligomeric golgi complex (COG7) gene in the morphogenesis of hearing organ of *Drosophila*" Funding Agency : Department of Science and Technology, New Delhi. Sanctioned amount 23.75 lakhs; Duration: 3 years.
2. (PI: Monalisa Mishra) "Role of PKD in the eye development of *Drosophila*" Funding Agency: UGC -BSR startup grant; Sanctioned Amount: 6 Lakhs; Duration: 2 years.
3. (PI: Praphulla C Shukla): "Identification of microRNAs Affecting LCAT and apoB-100 During Inflammatory Stress" Funding Agency: UGC -BSR startup grant; Sanctioned Amount : 6 Lakhs; Duration: 2 years.
4. (PI: Rajdeep Chowdhury) "Role of Pro-inflammatory Cytokines in Epithelial to Mesenchymal Transition in Hepatocellular Carcinoma". Sanctioned amount: 2 Lakhs; Duration: 2 years (2013-2015).
5. (PI: Rajdeep Chowdhury) "Role of Hippo Signaling Pathway Components in Autophagy Regulation in Hepatocellular Carcinoma." Sanctioned amount: 24 Lakhs; Duration: 3 years (2013-16).
6. (PI: Rajdeep Chowdhury) "Identifying microRNA Signatures Associated with Autophagy Induced Chemoresistance in Hepatocellular Carcinoma". Sanctioned amount : 6 Lakhs; Duration: 2 years (2013-15).
7. (PI: Shilpi Garg) "Analysis of hypothetical and putative proteins dual targeted to apicoplast and mitochondria in *Plasmodium vivax*". Funding Agency: University Grant Commission, New Delhi. Sanctioned amount: 6 Lakhs; Duration: 2 years.
8. (PI: Shilpi Garg) "Characterization of major components of (Fe-S) cluster assembly pathway in *Plasmodium vivax*" Funding Agency: Department of Science and Technology, New Delhi. Approved, Sanction letter and amount awaited; Duration: 3 years.
9. (PI: Santosh Kumar Padhi): "Enzyme Catalyzed Kinetic Resolution of (a) Racemic Amidoalkyl naphthols and (b) Racemic 1-Amidomethyl-Imidazo[1,2-a]Pyridines" Funding Agency: University Grant Commission, New Delhi; Sanctioned amount : 6 lakhs; Duration: 2 years, (2013–2015).
10. (PI: Santosh Kumar Padhi): "Engineering *Baliospermum montanum* Hydroxynitrile lyase for Potential Synthetic and Industrial Applications" Funding Agency: Science & Engineering Research Board (SERB) -New Delhi; Sanctioned Amount : 25 Lakhs Duration: 3 years (2013-2016).
11. (PI: Sudeshna Mukherjee): "A mechanistic analysis of the role of pro-inflammatory cytokines in induction of epithelial to mesenchymal transition in hepatocellular carcinoma" Funding Agency: DST-FAST Track (Young Scientist), Sanctioned Amount: 17 Lakhs; Duration: 3 years (2013-16).

## 3. Projects completed

1. (PI: Lalita Gupta) "Characterization of immune signaling pathway in Anopheles mosquitoes for arresting *Plasmodium* development" Funded by: Aditya Birla Groups, Co-PI Sanjeev Kumar, funded 10 Lakhs
2. (PI: Rajesh Mehrotra, Co-PIs: Jitendra Panwar, Sandhya Mehrotra) "Natural and Engineered Lipases for Biodiesel Production" Duration: 2 Years (October 2011- September 2013); Sanctioned Amount: 10 Lakhs; Funding Agency: Aditya Birla Group (ABG), Mumbai.
3. (PI: S K Verma) "Development of recombinant DNA based Biosensor device for detection of arsenic in water samples" Duration: 2 years (2010-2012); Funding Agency: Department of Science and Technology, New Delhi.

4. (Uma S. Dubey, Co-PI; PI: S. Kapur) "Functional Mutations in the Opioid Receptors and their impact on immune cell function" Duration: 3 years (2009-2012); Sanctioned amount: 55.76 Lakhs; Funding Agency: Indian Council for Medical Research, New Delhi.
5. (PI: Vishal Saxena): "Cloning and Characterization of the major regions of the plastid DNA from *Plasmodium vivax*". Duration: 3 years (2010-2013); Funding Agency: DST- Young Scientist, New Delhi.

#### 4. Project proposals approved during the year:

1. (PI: Jitendra Panwar) "Investigations on metal tolerance ability of soil fungi and their potential towards nanoparticle synthesis" Funding Agency: University Grant Commission (UGC), Govt. of India, New Delhi; Approved Amount: 15.05800 Lakh.
2. (PI: Lalita Gupta, Co-PI: Sanjeev Kumar): Studying the impact of Anopheles gut microbial environment on immunity and Plasmodium development" Funding Agency: Vector Science forum Indian Council for Medical Research, New Delhi. Approved amount: 30 Lakhs.
3. (PI: Vishal Saxena): "Characterization of Isoprenoid biosynthetic pathway enzymes from *Plasmodium vivax*". Funding Agency: UGC Major Research Project, UGC New Delhi, Duration: 3 years, Approved amount: 8.5 Lakhs.
4. (PI: Sandhya Mehrotra, CoPI: Rajesh Mehrotra) "Design, synthesis and validation of dehydration stress responsive promoters in plants" Funding Agency: University Grant Commission, Govt. of India, New Delhi; Approved amount: 12.80 Lakh.

#### B. PUBLICATIONS:

The faculty members of the Department published a total of 34 papers in various International/ National refereed journals during the year and had two patents. The list is as follows:

1. Akhtar, M.S. and Panwar, J. 2013. Efficacy of root-associated fungi and PGPR on the growth of *Pisum sativum* (cv. Arkil) and reproduction of the root-knot nematode *Meloidogyne incognita*. *Journal of Basic Microbiology*, 52: 1-9.
2. Jain, N., Bhargava, A., Tarafdar, J.C., Singh, S.K. and Panwar, J. 2013. A biomimetic approach towards synthesis of zinc oxide nanoparticles. *Applied Microbiology and Biotechnology*, 97: 859-869.
3. Gupta, G., Panwar, J. and Jha, P.N. 2013. Natural occurrence of *Pseudomonas aeruginosa*, a dominant cultivable diazotrophic endophytic bacterium colonizing *Pennisetum glaucum* (L.) R. Br. *Applied Soil Ecology*, 64: 252-261.
4. Akhtar, M.S., Panwar, J. and Yun, Y.S. 2013. Biogenic synthesis of metallic nanoparticles by plant extracts. *ACS Sustainable Chemistry & Engineering*, 1: 591-602.
5. Bhargava, A., Jain, N., Barathi, M., Akhtar, M.S., Yun, Y.S. and Panwar, J. 2013. Synthesis, characterization and mechanistic insights of mycogenic iron oxide nanoparticles. *Journal of Nanoparticle Research*, 15: 2013 (DOI 10.1007/s11051-013-2031-5)..
6. Jain, N., Bhargava, A., and Panwar, J. 2013. Enhanced photocatalytic degradation of methylene blue using biologically synthesized "protein-capped" ZnO nanoparticles. *Chemical Engineering Journal* (DOI: 10.1016/j.cej.2013.11.085).
7. Runthala, A., Chowdhury, S. 2013. Protein Structure Prediction: Are we there yet?, SCI 450, *Innovations in Knowledge-based Systems in Biomedicine and Computational Life Science*, Springer-Verlag Monograph Volume, 79-115.
8. Palakpati D, Garg S, Middha S, Kochar A, Subudhi AK, Boopathi PA, Kochar SK, Saxena V, Pareek RP, Acharya J, Kochar DK, Das A. 2013. Comparative Evaluation of microscopy, OptiMAL and 18S rRNA gene based multiplex PCR for detection of *Plasmodium falciparum* and *Plasmodium vivax* from field isolates of Bikaner India, *Asian Pacific Journal of Tropical Medicine*, 346-351.
9. Palakpati D, Garg S, Middha S, Subudhi AK, Boopathi PA, Saxena V, Kochar SK, Kochar DK, Das A. 2013. Development and Evaluation of a 28S r-RNA gene based nested PCR assay for *P. falciparum* and *P. vivax*. *Pathogens and Global Health*. 107(4), 180-188.

10. Boopathi, P.A., Subudhi, A., Garg, S., Middha, S., Acharya, J., Pakalapati, D., Saxena, V., Aiyaz, M., Chand, B., Mugasimangalam, R.C., Kochar, S. K., Sirohi, P., Kochar, D.K., Das, A.K. 2013. Revealing natural antisense transcripts from *Plasmodium vivax* isolates: Evidence of genome regulation in complicated malaria, *Infection, Genetics and Evolution*, 20: 428–443.
11. Ravi B, Kannan M. 2013. Epigenetics in the nervous system: An overview of its essential role, *Indian Journal of Human Genetics*, 19:384-91
12. Mishra M. 2013. Eye ultrastructure of three ecologically diverse Elaterid beetle species. *Entomologia Generalis*, 34 (4).
13. Mishra M. 2013. Eye ultrastructure investigation of *Scaphidium japonum* Reitter (Coleoptera, Staphylinidae: *Scaphidiidae*). *Journal of Entomology and Zoology Studies*, 1(2), 8-16
14. Sharma P.K., Sangwan N.S., Bose S.K. and Sangwan R.S., 2013. Biochemical characteristics of a novel vegetative tissue geraniol acetyltransferase from a monoterpene oil grass (Palmarosa, *Cymbopogon martinii* var. *Motia*) leaf, *Plant Science*, 63-73.
15. Gupta, G. Panwar, J. Jha, P.N. 2013. Natural occurrence of *Pseudomonas aeruginosa*, a dominant cultivable diazotrophic endophytic bacterium colonizing *Pennisetum glaucum* (L.) R.Br. *Applied Soil Ecology*, 64:252-261.
16. Prajapat R., Marwal, A., Jha, P.N. 2013. *Erwinia carotovora* associated with Potato: A Critical Appraisal with respect to Indian perspective. *International Journal of Current Microbiology and Applied Sciences*, 2: 83-89.
17. Jha, P.N., Gupta, G., Jha P., Mehrotra, R. 2013. Association of Rhizospheric/Endophytic Bacteria with Plants: A Potential Gateway to Sustainable Agriculture. *Greener Journal of Agricultural Sciences*, 3:73-84.
18. Mehrotra, R., Bhalothia, P., Bansal, P., Basantani, M.K., Bharti V., and Mehrotra, S. Abscisic acid and abiotic stress tolerance - different tiers of regulation. *Journal of Plant physiology*, *Accepted*
19. Nogia, P., Sidhu, G.K., Mehrotra, R., and Mehrotra, S. 2013. Capturing atmospheric carbon: Biological and non biological methods. *International journal of low-carbon technologies* (doi:10.1093/ijlct/ctt071-9).
20. Bhattacharjee, S., Renganaath, K., Mehrotra, R., and Mehrotra, S. 2013. Combinatorial control of gene expression. *Biomed Research International* (doi.org/10.1155/2013/407263).
21. Mehrotra, R., Zutshi, I., Sethi, S., Bhalothia, P., Mehrotra, S. 2013. Patterns and evolution of ACGT repeat *cis* element landscape across four plant genomes. *BMC Genomics* (<http://www.biomedcentral.com/1471-2164/14/203>).
22. Bhalothia, P., Alok, A., Mehrotra S., Mehrotra, R. 2013. AACA element negatively interferes with expression of Protein Phosphatase 2C like gene promoter. *American Journal of Plant Sciences*. 4; 549-554.
23. Mangla, V., Ravi, B., Mehra, S., Mehrotra, S., Mehrotra, R. 2013. Biofuels: An Overview with special emphasis on Biodiesel and the role of lipase enzyme in synthesis. *Current Chemical Biology*, 7: 96-103.
24. Ravi, B., Mehrotra, S., Mehrotra, R. 2013. Advances in Heterogeneous and Enzymatic catalysis for the industrial production of biodiesel by transesterification: An overview. *Current chemical Biology*, 7:104-113.
25. Ravi, B., Banerjee, U., Mehrotra, R., Mehrotra, S. 2013. Engineering lipases for enhanced catalysis. *Current Chemical Biology*. 7:114-120.
26. Bhalothia, P., Mehrotra, S., Mehrotra, R. 2013. Cloning and characterization of protein phosphatase 2C like promoter from *Arabidopsis thaliana*. *International Journal of Bioscience, Biochemistry and Bioinformatics*. 3(2):103-105.
27. Tripathi, D.N., Chowdhury, R. (equal contributors), Trudel, L.J., Tee, A.R., Walker, C.L., Wogan, N.G. 2013. Steady state exposure to Nitric Oxide induces TSC2 dependent autophagy through activation of ATM signaling kinase in breast cancer MCF7 cells. *Proceedings of National Academy of Sciences* ([www.pnas.org/cgi/doi/10.1073/pnas.1307736110](http://www.pnas.org/cgi/doi/10.1073/pnas.1307736110)).

28. Sarwa, P., Verma, S. K. 2013. Decolourization of orange G dye by microalgae *Aquoddesmus quadricuss* strain PSV2 isolated from textile industrial site. *IJASB* 1(4): 247-252
29. Dubey, B., Patra, A., Srivastava P.K. and Dubey, U.S. 2013. Modeling and Analysis of a SEIR model with two different types of nonlinear treatment rate. *Journal of Biological Systems*. 21: (25 pages).
30. Jha P, Panwar, J., Jha, P. N. 2013. Secondary plant metabolites and root exudates: Guiding tools for polychlorinated biphenyls biodegradation. *International Journal of Environmental Science and Technology* (DOI: 10.1007/s13762-014-0515-1).
31. Sekar S, Mahadevan S, Deepa PR, Shanmugam BK, Kumar BV, Mandal AB. The metabolic advantage of choline lactate in growth media: an experimental analysis with *Staphylococcus lentus*. *Appl Biochem Biotechnol*. 2013 Jan;169 (2):380-92.
32. Deepa PR, Vandhana S, Krishnakumar S. Fatty acid synthase inhibition induces differential expression of genes involved in apoptosis and cell proliferation in ocular cancer cells. *Nutr Cancer*. 2013; 65(2):311-6.
33. Vandhana S, Coral K, Jayanthi U, Deepa PR, Krishnakumar S. Biochemical changes accompanying apoptotic cell death in retinoblastoma cancer cells treated with lipogenic enzyme inhibitors. *Biochim Biophys Acta*. 2013 Sep;1831(9):1458-66.
34. Nalini V, Segu R, Deepa P R, Khetan V, Vasudevan M, Krishnakumar S. Molecular Insights on Post-chemotherapy Retinoblastoma by Microarray Gene Expression Analysis. *Bioinform Biol Insights*. 2013 Sep 18; 7:289-306.

#### PATENTS:

1. Ashis D. and Deepak P. "Oligonucleotides for the detection of Plasmodial sp. and an assay thereof". App No.: 3944/DEL/2012. (Final Filed: 12/12/2013)
2. Jain, N., Bhargava, A., and Panwar, J. Biosynthesis of ZnO nanoparticles (Application No. 1439/DEL/2011 dated May 19, 2011), Patent Office Journal, Issue No. 20/2013, Page No.11020. Publication Date: May 17, 2013.

#### C. CONFERENCES ATTENDED/ PAPERS PRESENTED:

1. Jain, N., Sabat, D., Bhargava, A., and Panwar, J. 2013. Purification and characterization of alkaline protease from metal tolerant fungus *Aspergillus flavus* NJP08. In: *International Conference on Health, Environment and Industrial Biotechnology (Biosangam 2013)*, November 21-23, 2013, Motilal Nehru National Institute of Technology, Allahabad, India, p. 460.
2. Jain, N. Bhargava, A., and Panwar, J. 2013. Gold Nanoparticles-Fungal Hybrid: Synthesis, Characterization and Catalytic Application. In: *3<sup>rd</sup> Nanoday Conference*, December 8-11, 2013, Biopolis, Singapore, p. 168.
3. Jain, N. Bhargava, A., and Panwar, J. 2013. Biomimetics at nanoscale: Utilizing metal tolerant fungal isolate to fabricate ZnO nanoparticles. In: *Asian Congress on Biotechnology*, December 15-19, 2013, Indian Institute of Technology, Delhi, p. 88-89.
4. Das, A., Pandey, I., Yadav, A., Subudhi, A.K., Boopathi, P.A., Garg, S., Middha, S., Acharya, J., Kochar, S.K., Kochar, D.K. 2013. "Comparative Analysis of Networks Based on Whole Genome Expression of Chemokines and Cytokines from Patients Showing Complications from Infections with *P. falciparum* and *P. vivax*". April 27-29, 2013, In: *24<sup>th</sup> National Congress of Parasitology, RMRCT, Jabalpur*.
5. Pandey, I., Subudhi, A.K., Boopathi, P.A., Yadav, A., Thomas, R., Garg, S., Middha, S., Acharya, J., Kochar, S.K., Kochar, D.K., Das, A. "A Glimpse of Cytokines Gene Expression from *P. falciparum* Infected Human Host, 27th-29th April, 2013, In: *24<sup>th</sup> National Congress of Parasitology, RMRCT, Jabalpur*.
6. Gupta, L., Dhawan, R., Gupta, K., Kajla, M., Gakhar, S. K., Kumar, S. 2013. ROS Detoxification enzymes in *Anopheles culicifacies* and their role in *Plasmodium* development. In: *American Society of Tropical Medicine and Hygiene (ASTMH), 62nd Annual Meeting*, November, 13-17 2013, Washington DC, USA.

7. Gupta, L. 2013. Mosquito world and its immune system. In: *Vector Encounter Meeting*, June 14-15, 2013. Baltimore, Maryland, USA..
8. Kajla, M., Gupta, K., Dhawan, R., Kakani, P., Gupta, L., Kumar, S. 2013. Characterization of *Anopheles* midgut immune peroxidase and their role in regulation of *Plasmodium* development. In: *XII International conference on Vector and Vector Borne Diseases (Vector borne diseases challenges in 21<sup>st</sup> century: Their Global Impact and Strategic Management)*, September 16-18 2013, Udaipur, Rajasthan, India.
9. Gupta, L., Kumar, S., Gupta, K., Dhawan, R., Kajla, M. 2013. Mosquito Immune signaling pathway and its role in *Plasmodium* development. In: *XXIV National Congress of Parasitology*, RMRCT, April 27-29, 2013, Jabalpur, M.P., India.
10. Gupta, K., Dhawan, R., Kajla, M., Kumar, S., Gupta, L. 2013. *Anopheles stephensi* STAT pathway: Exploring its effects on *Plasmodium* development. In: *XXIV National Congress of Parasitology*, RMRCT, April 27-29, 2013, Jabalpur, M.P. India
11. Dhawan, R., Gupta, K., Kajla, M., Kumar, S., Gakhar, S.K., Gupta, L. 2013. Proving ground for sequence divergence of suppressor of Cytokine signaling (SOCS) in *Anopheles culicifacies*. In: *XXIV National Congress of Parasitology*, RMRCT, April 27-29, 2013, Jabalpur, M.P. India.
12. Gupta, K., Dhawan, R., Kajla, M., Sharma, Y., Kumar, S. and Gupta, L. 2013. Molecular and Phylogenetic Analysis of Immune genes in *Anopheles stephensi* isolated from Rajasthan region. In: *National symposium on Fight against Malaria Prospects and Prospective (FAMMP-2013)*, March 9<sup>th</sup>, 2013, Maharshi Dayanand University, Rohtak, Haryana, India.
13. Dhawan, R., Gupta, K., Kajla, M., Kumar, S., Gakhar, S.K. and Gupta, L. 2013. Suppressor of Cytokine Signaling (SOCS): Characterization in *Anopheles culicifacies* mosquitoes. In: *National symposium on Fight against Malaria Prospects and Prospective (FAMMP-2013)*, March 9<sup>th</sup> 2013, Maharshi Dayanand University, Rohtak, Haryana, India.
14. Kajla, M., Gupta, K., Dhawan, R., Kakani, P., Gupta, L. and Kumar, S. 2013. Characterization of *Anopheles stephensi* Organic Anion Transporter. In : *National symposium on Fight against Malaria Prospects and Prospective (FAMMP-2013)*, March 9<sup>th</sup>, 2013, Maharshi Dayanand University, Rohtak, Haryana, India.
15. Mishra, M., Yuan, M., and Knust, E. 2013. Crumbs regulates the morphogenesis of the simple eyes of *Drosophila*, the ocelli, In: *ASIA-ARVO*, October 28-31, 2013, New Delhi.
16. Singh, R., Jha, P. N. 2013. Amelioration of salt stress by ACC deaminase bacteria isolated from desert region of Rajasthan. In: *International Conference on Advances in Biotechnology and Bioinformatics*, November, 25<sup>th</sup> - 27<sup>th</sup>, 2013, Pune, India. p. C-150.
17. Gupta, G., Jha, P. N. 2013. Cultivable diazotrophic endophytic community structure and diversity at various growth stages of field grown *Pennisetum glaucum* (L.) R. BR. In: *International symposium on "Frontier discoveries and innovations in microbiology and its interdisciplinary relevance by Association of microbiologists of India (AMI-2013) November 17-20, 2013* Rohtak, Haryana. p-388-389.
18. Nogia, P., Mehrotra, R. and Mehrotra, S. 2013. Screening of candidate proteins as sources of transit peptide elements for targeting cyanobacterial genes into the inner envelope of a C3 plant chloroplast. In: Indo Mexico workshop on Biotechnology: Beyond borders. Organized by CSIR, National Chemical Laboratory, Pune and CINVESTAV, Irapuato, Mexico, October 7-9, 2013, Pune, India.
19. Tomar, V., Sidhu, G.K., Mehrotra, R. and Mehrotra, S. 2013. Occurrence and distribution of inorganic carbon transporters across various phyla of Cyanobacteria. In: *Indo Mexico workshop on Biotechnology: Beyond borders, Organized by CSIR, National Chemical Laboratory, Pune and CINVESTAV, Irapuato, Consejo, Mexico*, October 7-9, 2013, Pune, India.
20. Mehrotra, R., Mori, A., Saitoh, S. and Yanagida, M. 2013. "Screening of genes that regulates the localization of Ght5 in low glucose sensitive mutants" In: *Intellectual cluster meeting*, December 19, 2013, Naha, Japan.
21. Chowdhury, R. 2013. In: 30<sup>th</sup> Round Table conference on "Life Style and Cancer with focus on Cancer Prevention", November 30, 2013, AIIMS, New Delhi.

22. Kanchan,S., Mehrotra, R. and Chowdhury, S. 2013. "Evolutionary study of DNA repair Endonuclease III identifies key residues for its function". In: *International Conference on Biomolecular forms and Functions*, January 8-11, 2013, Indian Institute of Science, Bangalore, India.
23. Runthala, A. and Chowdhury, S. 2013. "Modified Template Scoring scheme improves Template based modeling accuracy". In: *International Conference on Biomolecular forms and Functions*, January 8-11, 2013, Indian Institute of Science, Bangalore, India.
24. Garg, S., Saxena, V., Dhanpat, K., Kochar, and Das, A. 2013. "Novel point mutations in the antifolate drug resistance marker genes among *Plasmodium vivax* isolates exhibiting severe manifestations." In: *Advances in Plasmodium vivax malaria research held at Cosmocaixa*, May 28<sup>th</sup> - 29<sup>th</sup>, 2013, Barcelona, Spain.
25. Garg,S. 2013. Attended International Scientific Meeting on "Recent Developments in Malaria Research" at International Centre for Genetic Engineering and Biotechnology", December 2-4, 2013, New Delhi.
26. Padhi, S.K., Haas, M.J. and Bornscheuer, U.T. 2013. 'Lipase catalyzed in situ removal of SMGs to improve the quality of biodiesel production' – In: '*Asian Congress on Biotechnology-2013*', December 15<sup>th</sup> - 19<sup>th</sup>, 2013, New Delhi, India.
27. Jangir, N. Patil, M., Jha, P., Jha, P.N and Padhi, S.K. 2013. 'Screening, Isolation, Biochemical Characterization and Optimization of culture Conditions for Novel Lipases from Bacterial Soil Samples'. In: *Indo Mexico workshop on Biotechnology: Beyond borders. Organized by CSIR, National Chemical Laboratory, Pune and CINVESTAV, Irapuato,Mexico*, October 7-9, 2013, Pune, India.
28. Dubey, B., Dubey, P. and Dubey, U.S. 2013. Dynamics of SIR model with Beddington-De Angelis type incidence rate and saturated treatment rate. In: *International conference on Mathematical Modeling and Computer Simulation with Applications Organized by Indian Society for mathematical modeling and Computer simulation (ISMMACS) and Department of Mathematics and Statistics, IIT Kanpur*. December 31, 2013- Jan-2,2014, Kanpur, India.
29. Nagraj, J. and Chowdhury, R. 2013. In: *XXXVII All India Cell Biology Conference on Cell Dynamics and Cell Fate Organized by Indian Society of Cell Biology, NCBS, in Stem, C-CAMP, IISc*, at J N Tata Auditorium, IISc, December 22-14, 2013. Bangalore.
30. Saxena, V., Garg,S., Pala, Z. and Kochar, S.K. 2013. "Characterization Of The Nuclear Encoded Hypothetical Proteins Targeted To The Apicoplast In *Plasmodium vivax*" In: *Advances in Plasmodium vivax Malaria Research*, May 28<sup>th</sup> - 29<sup>th</sup>, 2013, Cosmocaixa, Barcelona, SPAIN.
31. Saggiu, G. S, Pala, Z., Garg, S., Kochar, S.K. and Saxena, V. 2013. 'Characterization of IspD enzyme from Indian *Plasmodium vivax* field isolates' In: *24<sup>th</sup> National Congress of Parasitology held at Regional Medical Research Centre for Tribal*, April 27-29, 2013, Jabalpur,.
32. Pala, Z., Lakhotia, R., Garg,S., Saggiu, G.S. and Saxena, V. 2013. 'Characterization and analysis of the RimM protein encoding gene in *Plasmodium vivax*'. In : *National Conference on 'Fight Against Malaria: Prospects and Perspectives'*, Centre for Biotechnology & Centre for Medical Biotechnology, March, 9<sup>th</sup>, 2013. Maharishi Dayanand University, Rohtak, Haryana.
33. Saxena, V., Garg, S., Lakhotia, R., Pala, Z., Saggiu, G.S and Kanchan, S. 2013. "Characterization of the nuclear encoded hypothetical proteins targeted to the apicoplast in *Plasmodium vivax*". In: *International Conference on Biomolecular Forms and Functions held at Indian Institute of Science*, January 8 – 11, 2013, Bangalore.
34. Bhalothia, P., Alok, A., Mehrotra, S. and Mehrotra, R. 2013. Cloning and characterization of protein phosphatase 2C like promoter from *Arabidopsis thaliana*. In: *3<sup>rd</sup> International Conference on Bioscience, Biochemistry and Bioinformatics*. February 24-25, 2013, Rome, Italy.
35. Sidhu, G.S., Mehrotra, R. and Mehrotra, S. 2013. Characterizing operons encoding RubisCO and Carbon concentrating mechanism proteins in a primitive cyanobacterium, *Gloeobacter violaceus*. In: *The 38<sup>th</sup> Lorne conference on protein structure and function*, February 10-14, 2013, Lorne, Victoria, Australia.

36. Jha, P, Panwar J and Jha P. N. 2013. Functional genes, diversity analysis and growth promotory studies of dibenzofuran (DBF) utilizing bacteria associated with *Withania somnifera* growing in transformer oil contaminated environment. In: *International symposium on "Frontier discoveries and innovations in microbiology and its interdisciplinary relevance by Association of microbiologists of India (AMI-2013)"*, November 17-20, 2013), Rohtak, Haryana, p-407.
37. Sharma, P. 2013. Local unfolding of protein backbone conformation at DNA recognition sites: characterization based on phi-psi map. In: *International Conference on Biomolecular forms and Functions*, January 8-11, 2013, Indian Institute of Science, Bangalore, India.
38. Kesheri, M., Kanchan S. and Sinha, R.P. 2013. Differential response of antioxidative enzyme superoxide dismutase to diversified environmental stresses in a Cyanobacterium inhabiting polluted water. In: *International Humboldt Kolleg on "Management of Water, Energy and Bio-resources in Changing Climate Regime: Emerging Issues and Environmental Challenges"*, February 8-9, 2013, Jawaharlal Nehru University, New Delhi.
39. Kesheri, M., Kanchan, S. and Sinha R.P. 2013. In silico structure prediction and analysis of Fe-Superoxide Dismutase in *Nostoc commune*. In: *Proceeding of International conference on Biomolecular forms and functions*, January 8-11 2013, Indian Institute of Science, Bangalore.
40. John A., Umashankar V., Deepa P. R., Krishnakumar S. Multi- faceted utility of in silico tools to explore structure- function relationships: A case-study of human FASN (Fatty acid synthase) multi-catalytic domain protein. Conference on Recent Advances in Computational Drug Design (Organized by Indian Institute of Science, Bangalore and Schrodinger); 16th—17th September, 2013; at the Indian Institute of Science, Bangalore.
41. Sangeetha M., P. R. Deepa, S. Krishnakumar Lipids, Inflammation and Cancer: Fatty acid synthase gene silencing induces cytotoxicity in retinoblastoma cancer cells through GPCR pathway deregulation. Presented at: 82nd Annual Meeting of Society of Biological Chemists, India (SBCI), and International Conference on Genomes: Mechanism and Function; 2nd - 5th December, 2013, University of Hyderabad.
42. Venkatesan N., P. R. Deepa, M. Yamuna, S.Krishnakumar, Down- regulation of miR-532-5p and miR- 486-3p contributes to Retinoblastoma tumorigenesis: in-vitro analysis of their functions using miRNA mimics. Presented at: 82nd Annual Meeting of Society of Biological Chemists, India (SBCI), and International Conference on Genomes: Mechanism and Function; 2nd - 5th December, 2013, University of Hyderabad.

#### D. BOOKS PUBLISHED/EDITED /BOOK CHAPTERS DURING THE YEAR:

1. Panwar, J. 2013. Nanoparticles: Controllable synthesis and characterization. In: *Nanotechnology in Soil science & Plant Nutrition*, Adhikari, T., Kundu, S. and Rao, A.S. (Eds.), New India Publishing Agency, New Delhi, India, pp. 153-173.
2. M Mishra, Knust E. 2013. Analysis of the *Drosophila* compound eye with light and electron microscopy. *Methods in Molecular Biology Series*, pp.161-182.
3. Dubey, U.S. and Mittal, A. 2013. Counteracting Microbes. In: *Advances in Biotechnology: A Practical Approach*. Nova Publishers, New York .pp.15-32

#### E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED

Nil

#### F. INVITED TALKS GIVEN BY BITS FACULTY

1. Ashis Das: Natural Antisense Transcripts from *Plasmodium vivax* Patient Derived Isolates, International Scientific Meeting: Recent Developments in Malaria Parasite Biology, ICGEB, New Delhi, December 2-4 , 2013.
2. Lalita Gupta: Mosquito world and its immune system. Vector Encounter Meeting, Baltimore, USA, June 14-15, 2013.
3. Lalita Gupta: Mosquito Immune signaling pathway and its role in *Plasmodium* development. In XXIV National Congress of Parasitology, RMRCT, Jabalpur, April 27-29, 2013.

4. Monalisa Mishra: Reinal Degeneration: An electron microscopy approach, NIOP (ICMR) workshop on electron microscopy for Diagnostics and Biomedical research, New Delhi. September 23-27, 2013.
5. Prabhat Nath Jha: "Characterization of plant growth promoting *pseudomonas aeruginosa*' at Shankar Netralaya, Chennai, January 17, 2013.
6. Prabhat Nath Jha: "Characterization of plant growth promoting *pseudomonas aeruginosa* PM389 and their endophytic establishment" at Department of Botany, Rajiv Gandhi University, Rono Hills, Doimukh, Itanagar, Arunachal Pradesh, India, March 19, 2013.
7. Sanjeev Kumar: Phytochemicals: naturally-occurring eco-friendly larvicides, XII<sup>th</sup> International Conference On Vector and Vector Borne Diseases (Vector borne diseases challenges in 21<sup>st</sup> century: Their Global Impact and Strategic Management), Udaipur, September 16-18, 2013.
8. Santosh Kumar Padhi: Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE-2013) organized by IChE Pilani Regional Center and Department of Chemical Engineering, BITS Pilani, Rajasthan, India, on "Basics of Chromatographic Analysis", March 22, 2013.
9. S K Verma: Development of recombinant DNA based portable device for detection of arsenic. In 3rd Annual conferences on Advances in Biotechnology (Biotech 2013), Global Science & Technology Forum, Singapore, March 18-19, 2013.
10. S K Verma: Biosorption efficiency of new isolate *Scenedesmus* sp. MCC 26 for Zn (II) removal from wastewater and evaluation of toxicity of algae treated water using swiss albino mice. In National Conference on Frontiers in Algal Biotechnology, Vishva Bharti University, Shantiniketan 15-17 November 2013.
11. Shilpi Garg: "Prevalence of Drug Resistance Associated Mutations in Clinical Isolates of *Plasmodium falciparum* and *Plasmodium vivax* from Bikaner, Rajasthan", In: XII International Conference on Vector and Vector Borne Diseases organised by Department of Zoology, Mohan Lal Sukhadia University, Udaipur, Rajasthan and National Academy of Vector Borne Diseases, Udaipur, September 16-18, 2013.
12. Vishal Saxena: "Charaterization of major regions of *Plasmodium vivax* apicoplast genome from India" at Shiksha-O-Anusandhan University, Bhubaneshwar, Orissa, January 17-18, 2013.
13. Vishal Saxena: "Apicoplast as a putative drug target in *Plasmodium vivax*". Presented in XII International Conference on Vector and Vector Borne Diseases organised by Department of Zoology, Mohan Lal Sukhadia University, Udaipur, Rajasthan and National Academy of Vector Borne Diseases, Udaipur, September 16-18, 2013.

#### G. INVITED TALKS ARRANGED IN THE DEPARTMENT

1. Department has organized an interaction session and lab visit for students of Birla School, Pilani on 22.07.2013.
2. Department has organized a Lecture on 22<sup>nd</sup> November 2013 by Prof. P.R. Deepa, Associate Professor, Department of Biological Sciences, Practice School Division, BITS Pilani - Chennai Center. The talk was titled "*Collaborative Research in Medical and Environmental Biotechnology: Snippets from Ocular Cancer Biology, Co-morbidities in CVD, and Green Chemistry*".
3. Prof. Manfred Schneider, Department of Organic Chemistry, Bergische Universität, Wuppertal, Germany delivered a seminar on "*Enzyme - assisted syntheses of bioactive molecules*" on 24<sup>th</sup> January 2013 and on "*Biocatalysis for bio-based products: using lipases and novel oleochemicals for the preparation of combination products from renewables*" on 25<sup>th</sup> January 2013. The speaker was invited by Dr. Santosh K. Padhi.

#### H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS

1. Jitendra Panwar: Bio-graphy of Dr. Jitendra Panwar was published in the renowned books published by International Biographical Center (IBC), Cambridge, England.
2. Ashish Runthala: Editorial Board Member of the Advance Research Publications, International Research Organization of Computer Sciences, Indian Journal of Research in Pharmacy and Biotechnology and Reviewer of the International Journal of Scientific Footprints.



3. Monika M.: Awarded DST Inspire fellowship to pursue Ph.D.
4. Vandana Tomar: Awarded DST Inspire fellowship to pursue Ph.D.
5. Kuldeep Gupta: II<sup>nd</sup> Best Poster Award in conference National symposium on Fight against Malaria Prospects and Prospective (FAMMP-2013), 9<sup>th</sup> March, 2013, Maharshi Dayanand University, Rohtak, Haryana, India.
6. Kuldeep Gupta: Best poster award in XXIV National Congress of Parasitology, 27-29 April 2013, RMRCT, Jabalpur, M.P. India
7. Prabhat N Jha: Awarded Raman Post-doctoral Fellowship under Indo-USA knowledge initiative program sponsored by University Grant Commission, New Delhi, India to carry out research at Michigan State University, USA.
8. Rajesh Mehrotra: Visiting Scientist in Okinawa institute of Science and Technology, Japan (July 1<sup>st</sup> to December 30<sup>th</sup>, 2013)
9. Mithilesh Kajla: Best poster award in XII<sup>th</sup> International Conference On Vector and Vector Borne Diseases (Vector borne diseases challenges in 21<sup>st</sup> century: Their Global Impact and Strategic Management) held in Udaipur, September 16-18, 2013.
10. Zarna Pala: Awarded DST Inspire fellowship and CSIR- Senior Research Fellowship.
11. Gagandeep Singh Saggi: Shortlisted for Nobel Laureates Meeting, Lindau, Germany to be held in July, 2014.
12. Pramila Jha: Best poster award in: *International symposium on "Frontier discoveries and innovations in microbiology and its interdisciplinary relevance by Association of microbiologists of India (AMI-2013)"* held at Rohtak, Haryana, November 17-20, 2013.
13. Amit Subudhi: Selected and participated in the Novartis International Biotechnology Leadership Camp (BioCamp), July 8-10, 2013, Novartis, Hyderabad.
14. Navin Jain: Invited Lecture at Electron Microscopy and Nanoscience Laboratory, Punjab Agricultural University, Ludhiana, September 11, 2013.
15. Navin Jain: Oral Presentation in Asian Congress on Biotechnology, December 15-19, 2013, Indian Institute of Technology, Delhi.

#### **I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION**

1. Lalita Gupta and Sanjeev Kumar: Scientific collaboration with Prof. S.K. Gakhar, MDU, Rohtak and Dr. Rajnikant Dixit, NIMR, New Delhi.
2. Uma S. Dubey: Research Collaboration with Dr. N.V. Patil, Director NRCC, Bikaner.

#### **J. SIGNIFICANT NEW EQUIPMENTS/ EXPERIMENTAL FACILITY ADDED DURING THE YEAR**

1. Multi-Stack Shaking Incubator (Vision Scientific)
2. Table Top Refrigerated Centrifuge (Eppendorf)
3. Protean II Gel electrophoresis unit with power pack and accessories
4. Incubator Shaker (Vision Scientific)
5. Digital Autoclave (Vision Scientific)
6. Refrigerated Table Top Centrifuge (Vision Scientific)
7. Thermomixer (BR Biochem)
8. LCD Microscope (Dewinter)
9. Electrophoresis Unit (BioRad)
10. Server Racks (Netrack Electronics)
11. Fermentor (Bio Age)
12. Laminar Air Flow Bench (MAC)
13. Rockymax Shaker (Tarson)
14. Inverted Microscope with digital camera (Olympus Magnus)
15. pH Meter (2) (Cyber Scan)

16. Trans-Blot® SD Semi-Dry Electrophoretic Transfer Cell (Bio-Rad)
17. Cold-centrifuge (Remi)
18. Dissecting microscope
19. Rotary evaporator (Aditya Scientific)
20. Real-Time PCR (Bio-Rad)
21. Fluorescence Microscope (Olympus-Magnus)
22. Portable ultrasonic homogeniser; BR Biochem Life Sciences, UP-250
23. Refrigerated Incubator shaker; Weiber Incubator shaker perfect system; ACM22064 1
24. Humidified chamber (Mac pvt ltd)
25. Deep freeze (-80 C) (Kaltius)
26. Freeze (-20 C) (Cell frost)
27. Freeze (4 C) (LG)
28. Membrane feeder (Hemotech)
29. Nanoinjector (Drummond)
30. Pipette puller (Narshige)
31. Dry bath (Genei)
32. Sure spin (Tarson)
33. Compound microscope (Cosmo)
34. Stereo zoom microscope (Quasmo)
35. Motor pestle (Sigma)
36. T-100 pcr machine (BioRad)
37. Centrifuge (Hitachi)

#### K. DEPARTMENTAL ASSOCIATION/ CLUB ACTIVITIES

##### Biological Society

The Biological Society in its traditional way executed APOGEE-2013, showing the recent development in modern biology through excellent working and non-working models. Senior members of the Biological Society have also been involved in orientation for freshly joined students and discussions regarding the future scope of Biology and Biotechnology. Other traditional activities such as welcome for new members, B1 alfresco and farewell for graduating students were also organized.

#### L. STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVALS

- Samarth Hegde, M.Sc. (Hons) Biological Sciences topped the CSIR-UGC-NET (Life Sciences) in June 2013 and is a recipient of S.P. Mukherjee Fellowship.
- **Status of M.E. (Biotech) batch graduated:**

Name	Current Prospects
Aakanksha Bansal	Ph.D. at the University of Cologne, Germany
Amarto Das Gupta	Placed at Dr. Reddy's Lab, Hyderabad
Saif Ismail	Junior Scientist at BioNeeds, Bangalore
Soumya Bhattacharjee	Ph.D. at NCBS, Bangalore
Yamna Sharma	Placed at Dr. Reddy's Lab, Hyderabad
Subha Nayak	Job at IBM, Bangalore
Shubhendu Trivedi	Ph.D. at NII, New Delhi
Debojit Dey	Ph.D. at IGIB, New Delhi
Navin Singh	JRF at IIT, Guwahati

- **Workshops/training attended by students:**

1. Navin Jain: Attended 9<sup>th</sup> Sci-Comm Workshop-2013 organized by DBT India alliance and Welcome Trust (UK) held at Golkonda resorts, Hyderabad from March 22-24, 2013.
2. Arpit Bhargava: Attended DST Nanomission sponsored “Advanced school on Biomedical Nanotechnology” held at Centre for Nanotechnology and Advanced Biomaterials, SASTRA University from 25-29<sup>th</sup> March 2013.
3. Manohar Lal: Attended National Workshop on Computation and Modelling held at BITS Pilani, Pilani Campus, from 23<sup>rd</sup>-24<sup>th</sup> February, 2013.
4. Swarna Kanchan: Attended “Workshop on Recent Advances in Computer Aided Drug Design and Computational Biology” held at IISC, Bangalore organized by Schodinger Inc., USA on 12<sup>th</sup> January, 2013.

**B1.10.2 Department: Civil Engineering**

Number of faculty members (as on 31 December 2013)

<b>Professors &amp; Senior Professors</b>	04
<b>Associate Professors</b>	01
<b>Assistant Professors</b>	09
<b>Lecturers</b>	01
<b>Visiting Faculty</b>	-

**Head of the Department: Dr. Manoj Kumar****Contact details: manojkr@pilani.bits-pilani.ac.in****Number of PhD Scholars: 06****Ph.D. Thesis Submitted during the year: 01****A. FINANCIAL ASSISTANCE FROM GOVERNMENT OF INDIA**

This year, UGC recognized the growth of research activities in the Civil Engineering Department and sanctioned one fellowship for the Department under Basic Scientific Research Scheme (BSR). This fellowship has been awarded for 5 years with a support of Rs. 16000/- per month and contingency grant of Rs.12000/- per student per annum for first two years and Rs. 18000/- per month and contingency grant of Rs.25000/- per student per annum for last three years.

**B. SPONSORED RESEARCH ACTIVITIES****(i) Projects Sanctioned during the year 2013**

<b>S.No.</b>	<b>Project Title</b>	<b>Principal/ Co-Principal Investigator</b>	<b>Sponsored Organization</b>	<b>Amount sanctioned (Rs. In Lacs)</b>
1.	Facility management using GIS and Genetic Algorithm	Rajiv Gupta	DST, New Delhi	19.99
2.	Design, development and implementation of a building integrated photovoltaic system for rural application	Rajiv Gupta Rajneesh Kumar (EEE)	State Innovation Council, Rajasthan	Total Amount: 123.00 Sanctioned Amount: 43.00
3.	Development of copper Bio-leaching methodology/technique from Tailing waste at Hindustan Copper Limited, Khetri	Anupam Singhal S K Verma (Bio.)	Ministry of Mines, New Delhi	30.38
4.	Study of Structural Response and Strengths of Thin-Walled FRP Composite Girders	S B Singh	CSIR New Delhi	18.00
5.	Development and Usage of Innovative Ductile Composite Materials for Repair and Retrofitting of Concrete and Masonry Structures	S B Singh	DST, New Delhi	23.50

**(ii) Ongoing projects (Sanctioned Prior to 2013):**

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lacs)
1.	Aakash Ganga – A Social Enterprise Model for RWH and Agriculture of low water demanding economically important plant	Rajiv Gupta	Department of Science and Technology, New Delhi	61.96
2.	Investigation of the Effect of Carbonation on the Properties of Concrete	Dipendu Bhunia S B Singh	Department of Science and Technology, New Delhi	34.00
3.	Development and Usage of Innovative Ductile Composite Materials for Repair and Retrofitting of Masonry Structures	S B Singh	Aditya Birla Group (ABG)	10.00
4.	Sustainable High Performance Concrete Infrastructures	S B Singh Ravindra Dhir	UKIERI Collaborative Research Award	281.6
5.	A Study on Sludge Minimization during The Treatment of Pickling Effluent and Utilization of Sludge	Anupam Singhal Rajiv Gupta	Aditya Birla Group (ABG)	10.00
6.	GIS based Characterization of Ground water in Shekhawati Region of Rajasthan	Anupam Singhal Rajiv Gupta	Department of Science and Technology, New Delhi	18.00
7.	Mobilization of Metals from Copper Mine Tailings of Khetri Copper Mine, Rajasthan and their Attenuation by Soil: Groundwater Pollution Implications	Sanghamitra Kundu	Department of Science and Technology, New Delhi	11.27
8.	Dynamic Buckling Responses of Composite Structures	S N Patel	BITS Faculty Research Initiation Grant	2.00

**(iii) On-going Consultancy Projects (Sanctioned During the 2013)**

S.No.	Project Title	Sponsored by	Sanction Amount	Investigators
1.	Road Safety Audit for Ringus-Sikar stretch of NH-11 (43.887 km)	National Highway Authority of India, (NHAI)	18.11 lacs	Prof. A K Sarkar Prof. A P Singh Dr. Amit Goel

**(iii) Projects completed this year**

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakhs)
1.	Design and development of Static Sunshade for thermal comfort inside the building	Rajiv Gupta	University Grants Commission, New Delhi	9.86
2.	Intestigation into the Bheviour of Coupling Beams	Dipendu Bhunia S B Singh	BITS Faculty Research	2.00

**C. PUBLICATIONS****Papers published by Faculty In Journals**

- Anuradha Devi, Anupam Singhal, Rajiv Gupta, "A Review on spent pickling liquor," International Journal of Environmental Sciences, Volume 4, No 3, 2013, Pages: 284-295.
- Singh A.N, Anupam Singhal, Rajiv Gupta, "A small discussion on microwave application for groundwater exploration: a review," International journal of Geomatics and Geosciences, volume 3, No 3, 2013, 474-485.
- Kartikeya Jha, Nishita Sinha, Shriniwas S. Arkatkar and Ashoke Sarkar "Modeling Growth Trend And Forecasting Techniques For Vehicular Population In India" International Journal for Traffic and Transport Engineering, 2013, 3(2), 139-158.
- Subodh Kant Dubey, Deval Mishra, Shriniwas S Arkatkar, Ajit Pratap Singh and Ashoke Kumar Sarkar, Route Choice Modelling Using Fuzzy logic and Adaptive Neuro-fuzzy, Modern Traffic and Transportation Engineering Research, American V-King Scientific Publishing Limited, 2013, 2(4), 11-19.
- Shalini K. Umasankar, Shriniwas S Arkatkar, Ajit Pratap Singh and Ashole Kumar Sarkar, "Quantification of Level-of-Service Index for Bus Routes in Developing Countries: A Case Study in India" Journal of Eastern Asia Society of Transportation Studies, 2013, 10, 1347-1366
- Saha, P., Pal. M. & Sarkar, A. K. (2013). Study on percent time-spent following: a performance measure for two-lane highways. *Advances in Civil Engineering and Building Materials*, Taylor & Francis Group, London, 899-902.
- Srivastava, P. R., T. Khan, Y. Sharma, & A. P. Singh, (2013). Ranking of software design alternatives: a fuzzy utility approach. *International Journal of Information Systems and Change Management*, 6(3), 239-265. DOI 10.1504/IJISCM.2013.058332
- Wagale M., A. P. Singh, A. K. Sarkar, S. S. Arkatkar (2013). Real-time Optimal Bus Scheduling for a City Using A DTR Model, *Procedia - Social and Behavioral Sciences*, Elsevier, Volume 104, Pages 845-854.
- Phogat V. S. M., A. P. Singh (2013). Selection of Equipment for Construction of a Hilly Road Using Multi Criteria Approach, *Procedia - Social and Behavioral Sciences*, Elsevier, Volume 104, Pages 282-291.
- Sharma B. K., A. P. Singh, K. Yadav and R.C. Chaudhary (2013), Effects of Chemical Reaction on Megneto-Micropolar Fluid Flow from a Radiative Surface with Variable Permeability, *Journal of Applied Mechanics and Engineering*. Volume 18(3), Pages 833–851.
- Akash K. Walunj, Dipendu Bhunia, Samarth Gupta and Prabhat Gupta, "Investigation of the Effect of Various parameters on the behavior of coupling beams", *Current Advances in Civil Engineering Applications* (accepted), September, 2013.
- D. Bhunia, V. Prakash and A.D. Pandey, "A Conceptual Design Approach of Coupled Shear Walls", *ISRN Civil Engineering* vol. 2013, Article ID 161502, 28 pages, 2013. doi:10.1155/2013/161502.
- Akash K. Walunj, Dipendu Bhunia, Samarth Gupta and Prabhat Gupta, "Investigation on the behavior of conventional reinforced coupling beams", *Composites: Mechanics, Computations, Applications*, An International Journal (Begell House), 4(4), pp. No.: 291-301, 2013.

14. Kumar K., Verma A. and Aggarwal A. (2013), "Moisture Content Effect on Sliding Shear Test Parameters in Woven Geotextile Reinforced Pilani Soil" *International Journal of Engineering Science Invention* ([www.ijesi.org](http://www.ijesi.org)), Vol. 2, Issue 8, August 2013, pp 10-15.
15. Muthukumar G and Manoj Kumar (2013), "Nonlinear finite element dynamic analysis of squat shear wall with openings", *International Journal of Advanced Structural Engineering*, Vol. 5, Issue No. 27
16. Meghna Charde & Rajiv Gupta, 'Effect of energy efficient building elements on summer cooling of buildings', *Energy and Buildings*, Elsevier, [Volume 67](#), December 2013, 616-623
17. Meghna Charde & Rajiv Gupta, 'Annual thermal performance of hollow roof in combination with cavity wall and static sunshade: An experimental study of energy efficient rooms', *ASCE's Journal of Energy Engineering* Volume 139, Issue 4 (December 2013), 281-289.
18. Manish A. Kewalramani, and Rajiv Gupta, 'Compressive Strength Characteristics of Normal Strength Concrete Cured Using Colored Polythene Sheets', *Advanced Materials Research*, Vol. 685 (2013), trans Tech Publications, Switzerland /scientific.net, 2013, 223-227
19. Meghna Charde & Rajiv Gupta, 'Design development and thermal performance evaluation of static sunshade and brick cavity wall: An experimental study', *Energy and Buildings*, Elsevier, vol. 60, May 2013, 210-216.
20. S. B. Singh, Asani Likhith Reddy, and Chandra Prakash Khatri (2013), "Experimental and Parametric Investigation of Response of NSM CFRP Strengthened RC Beams (MS No. CCENG-824R1)," *ASCE's Journal of Composites for Construction*, 10.1061/(ASCE)CC.1943-5614.0000411.
21. D. Kumar and S. B. Singh (2013), "Effects of Boundary Conditions on Postbuckling Strengths of Composite Laminate with Various Shaped Cutouts under In-plane Shear," *Open Journal of Composite Materials* (doi: 10.4236/ojcm.2013.32006), Vol. 3, No. 2, April, pp. 38-50.
22. S. B. Singh (2013), "Design, Construction, and Failure Aspects of World Trade Center Towers," *Civil Engineering and Construction Review (CE & CR)*, Vol. 26, No. 08, pp.38-44.
23. S. B. Singh (2013), "Shear Response and Design of RC Beams Strengthened using CFRP Laminates," *The International Journal of Advanced Structural Engineering*, doi:10.1186/2008-6695-5-16, Vol. 5, No.1, pp.1-16.
24. S. B. Singh and Madappa, V. R. S. (2013), "Flexural Response of ECC Strengthened Reinforced Concrete Beams," *The Indian Concrete Journal*, Vol. 87, No. 7, July, pp. 35-44.
25. D. Kumar and S. B. Singh (2013), "Postbuckling Strengths of Composite Laminates with a Central Circular/Elliptical Cutout Under in-plane Combined Loads" *Journal of Aerospace Sciences and Technologies*, Vol. 65, No. 2, May, pp.206-219.
26. D. Kumar and S. B. Singh (2013), Effects of Flexural Boundary Conditions on Failure and Stability of Composite Laminate with Cutouts under Combined In-plane Loads *Composites Part B, Composites: Part B*, Vol. 45, pp.657-665.

#### D. PAPERS PUBLISHED BY FACULTY IN CONFERENCES:

1. Shalini K. Umasankar, Shrinivas S Arkatkar, Ajit Pratap Singh and Ashoke Kumar Sarkar, "Quantification of Level-of-Service Index for Bus Routes in Developing Countries: A Case Study in India" 10<sup>th</sup> International Conference of Eastern Asia Society of Transportation Studies at Taipei.
2. Balaji P, Subodh Kant Dubey, Shrinivas S Arkatkar and Ashoke Kumar Sarkar, "Impact Assessment of Induced Traffic on Feasibility of Highway Projects" 1<sup>0th</sup> International Conference of Eastern Asia Society of Transportation Studies at Taipei.
3. Rajendra Prasada, Shalini Kanuganti, Pooja N. Bhanegaonkar, Ashoke Kumar Sarkar, Shrinivas Arkatkar, Development of Relationship between Roughness (IRI) and Visible Surface Distresses: A Study on PMGSY Roads, *Procedia Social and Behavioral Sciences*, Elsevier, 2<sup>nd</sup> Conference of Transportation Research Group, Agra.
4. Makrand Wagale, Ajit Pratap Singh, Ashoke K. Sarkar and Shrinivas Arkatkar, Real-Time Optimal Bus Scheduling for a City using A DTR Model, *Procedia Social and Behavioral Sciences*, Elsevier.; 2<sup>nd</sup> Conference of Transportation Research Group, Agra.

5. *Clustering of Pavement Stretches and Finding Out the Optimum Number of Clusters for Pavement Maintenance* by A.K. Sandra and A.K. Sarkar was presented at the 92<sup>nd</sup>. Transportation Research Board Meeting, Washington, D.C, USA, 13-16 January 2013.
6. Akash K. Walunj, Dipendu Bhunia, Samarth Gupta and Prabhat Gupta, "Investigation on the behavior of conventional reinforced coupling beams", International Conference on Construction and Civil Engineering-2013 (accepted for oral presentation), December 24-25th, 2013, Bangkok, Thailand.
7. D.Bhunia, S.B.Singh and A. Imam, "A Study on Effect of Carbonation on the Properties of Concrete", Proceedings of UKIERI Congress-2013, NIT Jalandhar, 5-8th March 2013.
8. Mittal R.K., Mahalakshmi N., and Singh S. (2013) "Evaluation of liquefaction screening criterion based on standard penetration test values" Structural Congress, American Society of Civil Engineers, May 2-4, 2013, Pittsburgh, Pennsylvania, pp. 2983 – 2988, © ASCE 2013.
9. G Muthukumar and Manoj Kumar (2013), " Influence of opening on the dynamic structural response of rectangular slender shear wall for different damping ratios", CD Proceedings of the International Conference on Structural Engineering and Mechanics, held at NIT Rourkela during December 20-22.
10. G Muthukumar and Manoj Kumar (2013), " Effect of opening size on the structural response of rectangular slender shear wall without boundary elements", Proceedings of the National Conference on Recent Advances in Civil Engineering (RACE), held at NIT Patna during June 13-14.
11. Meghana Charde, Sourabh Bhati, Ayushman Kheterpal, Rajiv Gupta Thermal performance of static sunshade and brick cavity wall in composite climate, 8<sup>th</sup> Conference on sustainable Development of Energy, Water and Environment Systems, University of Zagreb and Cologne University of Applied Sciences and Aalborg University; 22 Sept – 27<sup>th</sup> Sept. - 2013 Dubrovnik sponsored by UNESCO
12. Meghana Charde, Rajiv Gupta, Analysis of brick cavity wall for energy conservation in buildings International Congress on Materials and Renewable Energy (MRE 2013) at the InterContinental Hotel, Athens – GREECE during 1-3 July 2013.
13. Manish A. Kewalramani, Rajiv Gupta Influence of Environmental Conditions and Curing Methods on Normal Strength Concrete – An Experimental Study International Conference on Advanced Materials Research (ICAMR 2013) Dubai, UAE on January 19-20, 2013
14. **Rajiv Gupta, Samaksh Jhanjhari, Ankit** , 'Designing rainwater harvesting system for villages', Water – Present and Future, IWWA, Jodhpur Chapter, 24-25 Aug. 2013
15. S. B. Singh, S. Madappa, and Nikesh Thammishetti (2013), Ductile FRP System and its Structural Applications," Proceedings of the 5<sup>th</sup> Asia-Pacific Young Researchers and Graduates Symposium YRGS 2013), MNIT Jaipur, October 15-16, pp.133-141.
16. S. B. Singh (2013), Presented a research paper on "Sustainable Concrete Infrastructures," at UKIERI Showcase Event held on October 14 at British Council Division, New Delhi.
17. S. B. Singh (2013) delivered Expert Lecture on "Innovative Ductile Cementitious Composites for Structural Applications," at UltraTech Cement Technical Lecture in partnership with the Institution of Engineers, Baroda, Institution of Engineers Building, September 28.
18. S. B. Singh (2013), "Response of Near Surface Mounted (NSM) CFRP Strengthened RC Beams," First International Conference on Mechanics of Composites, Stony Brook University in Stony Brook, NY, USA, (Accepted for Oral presentation).
19. S. B. Singh, Himanshu Chawla, and Pankaj Munjal (2013), "Effect of Shear Deformation on Flexural Response of Laminated Composite I-Beam," First International Conference on Mechanics of Composites, Stony Brook University in Stony Brook, NY, USA (Accepted for Oral presentation).
20. S.N.Patel "Nonlinear response of laminated composite stiffened plate", International Conference on Structural Engineering and Mechanics (ICSEM-2013), 20-22, December-2013, Dept. of Civil Engineering, NIT Rourkela, Rourkela.
21. S.N.Patel, "Nonlinear deflection of laminated composite eccentrically stiffened plates", National Conference on Recent Trends and Innovations in Civil Engineering (RTICE-2013), 15-16,



November-2013, Dept. of Civil Engineering, BRCM College of Engineering and Technology, Bahal, Bhiwani, Haryana.

22. S.N.Patel, "Nonlinear bending analysis of laminated composite stiffened plates", The 2013 World Congress on Advances in Structural Engineering and Mechanics(ASEM13) [under this: 2013 International Conference on Steel & Composite Structures (ICSCS13)],8-12,September-2013, Korea Adv. Inst. of Sci. & Tech. (KAIST) in cooperation with Techno-Press Journals, ICC, Jeju, South Korea.

#### **E. BOOKS/BOOK CHAPTERS PUBLISHED DURING THE YEAR**

Ashoke K Sarkar, Shrinivas Arkatkar, Vinayak Rao and Indrajeet Ghosh, (2013); "Fundamentals of Transportation Systems- Class XI" Central Board of Secondary Education, New Delhi.

#### **F. INVITED TALKS/KEY-NOTE LECTURES DELIVERED/SESSION CHAIRING BY FACULTY MEMBERS**

- Anupam Singhal delivered an expert talk on Design of Water Treatment Plant: A Case Study at Dept. of Civil Engineering, MNIT-Jaipur under Rajasthan Urban Infrastructure Development Project (RUIDP) on 11th August' 2013.
- Rajiv Gupta delivered invited lecture on basement, storm water and cable galleries at Bokaro Steel Plant organized by HRD, Bokaro steel Plant, July 16-17, 2013.
- Rajiv Gupta was invited as chief guest and delivered address on "Engineering with the purpose" at BRCM College at Bahal, Haryana on Occasion of Engineer's Day on 15<sup>th</sup> Spet. 2013.
- Rajiv Gupta delivered Session Key note in session " Building II" at 8<sup>th</sup> Conference on sustainable Development of Energy, Water and Environment Systems, University of Zagreb and Cologne University of Applied Sciences and Aalborg University; 22 Sept – 27<sup>th</sup> Sept. - 2013 Dubrovnik sponsored by UNESCO.
- Rajiv Gupta was invited as chief guest and delivered a key note address on "E-Construction" at National Conference on Recent Trends and Innovation in Civil Engineering RTICE-2013 (15th-16th November, 2013) BRCM College of Engineering and Technology Bahal-127028, Bhiwani, Haryana.
- Rajiv Gupta Chaired the session 'Building I' at 8<sup>th</sup> Conference on sustainable Development of Energy, Water and Environment Systems, University of Zagreb and Cologne University of Applied Sciences and Aalborg University; 22 Sept – 27<sup>th</sup> Sept. - 2013 Dubrovnik sponsored by UNESCO.
- Dipendu Bhunia Delivered a Lecture on "Investigation into the Behavior of Coupling Beams" in the TE-QIP Workshop Organized by Civil Engineering Department, VNIT Nagpur, 22-23<sup>rd</sup> March 2013.
- Dipendu Bhunia Delivered a Guest Lecture on "Residual Life Assessment of Industrial Structures" in the LEO Workshop Organized by Bokaro Steel Plant (SAIL), Bokaro, 16-17th July 2013.
- S. B. Singh Presented a research paper on "Sustainable Concrete Infrastructures," at UKIERI Showcase Event held on October 14, 2013 at British Council Division, New Delhi.
- S. B. Singh delivered Expert Lecture on "Innovative Ductile Cementitious Composites for Structural Applications," at UltraTech Cement Technical Lecture in partnership with the Institution of Engineers, Baroda, Institution of Engineers Building, September 28, 2013.
- S. B. Singh Delivered Invited Lectures on Philosophy and Practice of Maintaining Industrial Structures at Bokaro Steel Plant organized by HRD, Bokaro Steel Plant, Bokaro during July 16-17, 2013.
- S. B. Singh Delivered a Keynote In-augural Lecture at Short-Term Training Programme on Computational and Experimental Methods for Advance Research in Composites, MNIT Jaipur, June 12-16, 2013.
- S. B. Singh (2013), Delivered Keynote Lecture on "Ductile FRP System and its Structural Applications," at the 5<sup>th</sup> Asia-Pacific Young Researchers and Graduates Symposium YRGS 2013), MNIT Jaipur on 15<sup>th</sup> October, 2013.

- Chaired Two Sessions (Session no. 2 and 4) at the 5<sup>th</sup> Asia-Pacific Young Researchers and Graduates Symposium (YRGS) held at MNIT Jaipur, October 15-16, 2013.
- Anupam Singhal delivered an expert talk on Design of Water Treatment Plant: A Case Study at Dept. of Civil Engineering, MNIT-Jaipur under Rajasthan Urban Infrastructure Development Project (RUIDP) on 11th August' 2013.
- A K Sarkar participated as a resource person in the Expert Group Meeting on Road Maintenance and Management in *Hanoi, Vietnam* during 29-31 May 2013 organized by United Nations ESCAP and the World Bank Vietnam.
- S. N. Patel chaired the Session-M2C [Theme- Buckling, Stability and Non-linear Behaviour of Structures] in the 2013 World Congress on Advances in Structural Engineering and Mechanics (ASEM13), 8-12, September-2013, Korea Adv. Inst. of Sci. & Tech. (KAIST) in cooperation with Techno-Press Journals, ICC, Jeju, South Korea.
- S. N. Patel chaired the Technical Session-I, in the National Conference on Recent Trends and Innovations in Civil Engineering (RTICE-2013), 15-16, November-2013, Dept. of Civil Engineering, BRCM College of Engineering and Technology, Bahal-127028, Bhiwani, Haryana.

#### **G. AWARDS AND RECOGNITIONS WON BY FACULTY**

- Prof. Ajit Pratap Singh has been appointed as one of the working group experts of National Institute of Hydrology, Roorkee, Ministry of Water Resources, Government of India.
- Prof. A. K. Sarkar has been appointed as Member, Working Group of the Traffic and Transportation (Horizon Year 2030) formed by the Jaipur Development Authority (JDA).
- Prof. A. K. Sarkar has been appointed as National Level Coordinator for Training and Skill Development programme to be offered by National Rural Road Development Agency (NRRDA), Government of India.
- Prof. A. K. Sarkar has been appointed as member of Committee for Formulation of Guidelines for Performance Evaluation of State Technical Agencies, National Rural Roads Development Agency, Ministry of Rural Development, Government of India.
- Prof. A K Sarkar has been appointed as member, Standing Advisory Committee, National Rural Roads Development Agency, Ministry of Rural Development, Government of India.
- Prof. A K Sarkar has been appointed as member, Road Development Policy, Public Works Department, Government of Rajasthan
- Dr. Manoj Kumar was invited to review the existing scheme of the UPSC Engineering Examination and to give his vital inputs on reforms needed in order to select the best lot of candidates.
- S. B. Singh acted as an Advisor to UPSC New Delhi for Conducting Personality Test of Engineering Services Examinations Candidate (January 13-17, 2014).
- S. B. Singh Honored as Guest of Honor at Short Term Training Programme (STTP) on Computational and Experimental Methods for Advance Research in Composites, MNIT Jaipur, June 12-16, 2013
- S B Singh nominated as Expert member of BIS committee for test methods on fibre reinforced cementitious composites
- Prof. S. B. Singh and Prof. Ajit Pratap Singh have been appointed as External Members of Advisory Committee of UGC-(DRS) SAP for different institutes in India for 2012-2017.
- Prof. S. B. Singh has been Nominated as Expert member of BIS committee for test methods on fiber reinforced cementitious composites.
- Dr. Shrinivas Arkatkar was appointed as Editorial Board member for three Journals (i) Transportation Research Group of India Magazine, (ii) Modern Traffic and Transportation Engineering Research and, (iii) International Journal for Traffic and Transport Engineering
- Dr. Shrinivas Arkatkar received Commendation Certificate Award by Indian Roads Congress for the paper: V. Thamizh Arasan and Shrinivas S. Arkatkar "Effect of Upgrade and its length on PCU of Vehicles in Heterogeneous Traffic" Highway Research Journal, Indian Roads Congress, New Delhi, 4(1), 51-68.

- Dr. Shrinivas Arkatkar received Indian Roads Congress Medal for outstanding paper on Road Research sponsored by Bihar PWD. Paper Title- Enhancing the Accuracy of Estimation of Passenger Car Unit for Vehicles of Heterogeneous Traffic, published in Highway Research Journal.

#### **H. AWARDS AND RECOGNITIONS WON BY STUDENTS**

- Viraj Voditel (BE III<sup>rd</sup> yr) and Anvit Kumar Mittal (II<sup>nd</sup> yr) won the National award in the 3D Student Design Challenge organized by Autodesk.
- Pragnesh Pahuja (BE III<sup>rd</sup> yr) was selected for Mitacs Globalink Summer Internship Program at University of Alberta
- Devyani Chowdhry (BE III<sup>rd</sup> yr) got an acceptance to work as a summer research intern at RWTH Aachen University, Germany
- Siddharth Awasthi (BE III<sup>rd</sup> yr) got an acceptance to work as a summer research intern at TU Darmstadt University, Germany

#### **K. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR**

- Load Frame Testing Facility Upgrade (Servo-controlled Dynamic Actuators)
- Universal Testing Machine (UTM) for Static Loads
- Universal Testing Machine (UTM) for Dynamic loads
- Computerised Compression Testing Machine
- Carbonation Chamber
- Digital Axial Extensometer and LVDTs
- Portable Light weight Deflectometer
- Skid Resistance Testing Machine
- Hydraulic Bench
- Reynolds Apparatus
- UV Spectro-photometer
- Digital BOD & COD Apparatus
- Total Station
- Electronic Theodolite

#### **L. MAJOR SOFTWARES PURCHASED/PROCURED**

- VISSIM-6
- Ansys 14.5
- Auto cad 2014
- STAAD Pro
- Trazer
- Geo-5
- Arc-GIS- 10.1
- Pipe Flow Network
- Mx-Roads

**M. INVITED TALKS ARRANGED IN THE DEPARTMENT**

- Prof..K. S. Reddy, Cuvil Engg. Dept. IIT Kharagpur, Delivered an invited lecture on 'Recent Amendments In the Design of Flexible and Rigid Pavements' on 29th March, 2013.
- Er. Vasudeo Pandya, BITS Alumni, Consulting Structural Engineers, Ram Consultant, USA, Delivered a guest lecture on 'Learning From Failures' on 10th April, 2013.

**N. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES**

The Civil Engineering Association (CEA) organized the following events throughout the year:

**Jaipur Metro Site Visit**

A one day site visit was organized at Jaipur Metro. Students, including graduate and undergraduate students, went to 4 sites where the work of Jaipur Metro was in progress. It was a great learning experience and the engineers at every site explained everything in great detail and clarified all doubts and queries of students.

**Informal Meet**

An informal meet was held at sky lawns on 7<sup>th</sup> August. The meet was an introduction to the executive committee and other post holders of the association. The meet ended with the seniors handling a wide range of questions related to the scope of civil engineering from the freshman students.

**Formal Meet**

A formal meet was held on 19<sup>th</sup> August in LTC. The meet was attended by all faculty members, research scholars, freshman, sophomore and senior year students. The meet started with an address by Dr. Manoj Kumar, HOD, Civil Engineering Department who spoke at length on the various dimensions of Civil Engineering. It was followed by various other faculty members addressing the gathering about their respective specializations and Civil Engineering in general. The meet concluded with the interaction of freshmen entrants with faculty members and seniors.

**Archetype**

The second edition of the immensely popular Civil Engineering Fest 'Archetype' was held from 9<sup>th</sup> to 11<sup>th</sup> November. It consisted of a Potpourri of exciting events which tested the ingenuity and wit of participants. The events included 'Urbanistica', 'Cliffhanger', 'Geoteknik' and 'Bridge the Gap' which received good reviews. A site visit to the New Workshop, a part of project 'Parivartan', was organized by faculty members.

**Apogee Meets**

Four APOGEE Project Meets were held. Intense brainstorming was done to discuss ideas as well as the project pitching rounds to follow. Several exciting events were planned for Apogee 2014. A new event 'BridgeD' which pitted the engineering judgment and creativity of contestants against the chaotic forces of nature was conceived. Several other events such as 'Shrishti', 'Geoteknik' and 'Gridlock' were also discussed in the meet.

**B1.10.3 Department: Chemical Engineering**

Number\* of faculty members (as on 31 December 2013)

<b>Professor</b>	01
<b>Associate Professor</b>	01**
<b>Assistant Professors</b>	10
<b>Lecturers</b>	07
<b>Visiting Faculty</b>	00

\* On &amp; Off Campus. \*\* On deputation to Dubai Campus

**Head of the Department:** Dr. Suresh Gupta**Contact details:** sureshg@pilani.bits-pilani.ac.in**Number of PhD Scholars:** 08**Ph.D. Thesis Submitted during the year:** 02**A. SPONSORED RESEARCH ACTIVITIES**

Total number of Sponsored Projects in the department: 15 [2 (Department Grant) + 8 (Research Grant) + 5 (Research Initiation Grant)]. Details are given below.

**(i) Ongoing projects**

<b>Project Title</b>	<b>Principal Investigator</b>	<b>Co-Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
UGC – DRS - SAP	Head of Department	-	UGC	48.00
DST-FIST	Head of Department	-	DST	80.50
Removal of Volatile Organic Compounds (Chlorinated VOCs, non-Methane Hydrocarbons, Ethylene Glycol) from Waste Streams using Biofiltration	Dr Smita Raghuvanshi	-	DST	14.50
Removal of Heavy Metals from Industrial Wastewater using Biofiltration	Dr Smita Raghuvanshi	Dr Suresh Gupta	UGC	5.50

**(ii) Projects sanctioned during the year**

<b>Project Title</b>	<b>Principal Investigator</b>	<b>Co-Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
Production of hydrogen-rich fuel gas from Jatropha residue cake	Dr. Pratik N Sheth	-	DST	24.90
Evaluation and enhancement of foam stability of ethanol based aqueous foam using commercial surfactant sodium lauryl sulfate	Dr. Pradipta Chattopadhyay	-	DST	25.00
Removal of Heavy Metals from Industrial wastewater using metallic Nanoparticles as	Dr. Suresh Gupta	-	DST	21.47

Project Title	Principal Investigator	Co-Investigator	Agency	Sanction (Rs. in Lakh)
adsorbents				
Application of Enriched Microbial Biofilter for the Detoxification of Metal Wastes from Industrial Wastewater	Mr. Subhajit Majumder	-	UGC	2.0
Recovery of Multiple Metal Ions from Industrial Wastewater using Adsorption	Mr. Utkarsh Maheshwari	-	UGC	2.0
Modeling and simulation of metallocene catalyzed olefin polymerization	Mr. Nikhil Prakash	-	UGC	2.0
Research Initiation Grant	Dr. Banasri Roy	-	BITS, Pilani	2.00
Research Initiation Grant	Dr. Sonal Mazumder	-	BITS, Pilani	2.00

**(iii) Projects completed this year**

Project Title	Principal Investigator	Co-Investigator	Agency	Sanction (Rs. in Lakh)
Research Initiation Grant	Dr Pradipta Chattopadhyay	-	BITS, Pilani	2.00
Research Initiation Grant	Dr Pratik N Sheth	-	BITS, Pilani	2.00
Research Initiation Grant	Dr Smita Raghuvanshi	-	BITS, Pilani	1.20

**B. PUBLICATIONS**

- (i) The faculty of the department published 06 papers in international refereed journals during the year.
1. A. K. Pani, V. K. Vadlamudi, H. K. Mohanta, "Development and comparison of neural network based soft sensors for online estimation of cement clinker quality", ISA Transactions. 52 (1) 2013, pp. 19-29.
  2. P. K. Singh, Surekha Bhanot, H. K. Mohanta, "Neural Control of Neutralization Process using Fuzzy Inference System based Lookup Table", International Journal of Computer Applications. 61 (9) 2013, pp. 16-22.
  3. Bhupendra K. Sharma, Suresh Gupta, V. Vamsi Krishna, R. J. Bhargavi, "Soret And Dufour effects on an unsteady MHD mixed convective flow past an infinite vertical plate with Ohmic dissipation and heat source", Afrika Matematika. Published online April, 2013. DOI 10.1007/s13370-013-0154-6.
  4. Smita Raghuvanshi, Suresh Gupta, B. V. Babu, "Growth Kinetics of Acclimated Mixed Culture for Degradation of Iso-Propyl Alcohol (IPA)", Journal of Biotechnology & Biomaterials, Published online, S13:002. DOI: 10.4172/2155-952X.S13-002.
  5. Bhupendra K. Sharma, Abhishek Mishra, Suresh Gupta, "Heat and mass transfer in magneto bio-fluid flow through a non-Darcian porous medium with Joule effect". Journal of Engineering Physics and Thermophysics, 86 (4) 2013, pp. 717 – 725.
  6. Subhajit Majumder, Smita Raghuvanshi, Suresh Gupta, "Estimation of Kinetic Parameters for Bioremediation of Cr(VI) from Wastewater using Pseudomonas taiwanensis an isolated strain from Enriched Mixed Culture", Bioremediation, Accepted (In-press).
- (ii) The faculty of the department published 35 papers in international/national conferences during the year.
1. Pradipta Chattopadhyay, Foam Model for Delayed Coking Process, Proceedings of Conference on Advances in Chemical Engineering (ACE 2013), IIT Roorkee, India, 22-24th February, 2013.
  2. Amit Jain, B. V. Babu, A New Approach for the Analysis of Closed Loop Interaction in Dynamic Systems, Proceedings of International Conference on Advances in Chemical Engineering (ACE-2013), Roorkee, India, February 22-24, 2013.

3. A. K. Pani, H. K. Mohanta, A Hybrid Soft Sensing Approach of a Cement Mill Using Principal Component Analysis and Artificial Neural Networks, 3rd IEEE International Advanced Computing Conference (IEEE-IACC 2013). AKGEC, 22 – 23 Feb 2013. Published in IEEE Explore, Advance Computing Conference (IACC), 2013 IEEE 3rd International, vol., no., pp.713, 718, 22-23 Feb. 2013.
4. Pradipta Chattopadhyay, Foam Height Predictions for Delayed Coking Runs, Proceedings of Conference on Advances in Chemical Engineering (ICACE 2013), NIT Raipur, India, 5-6th April, 2013.
5. Utkarsh Maheshwari, Application of Nanotechnology for the Removal of Heavy Metals from Industrial Effluent, Accepted in 6th International Congress of Chemistry and Environment (ICCE-2013) in association with International Partners, Antwerp, Belgium, July 8-10, 2013.
6. Utkarsh Maheshwari, A Short Note on the Processes Available for the Removal of CO<sub>2</sub> from Natural Gas, Accepted in 6th International Congress of Chemistry and Environment (ICCE-2013) in association with International Partners, Antwerp, Belgium, July 8-10, 2013.
7. Somesh Mishra, Suresh Gupta, Smita Raghuvanshi, A green approach to mitigate CO<sub>2</sub> using mixed microbial culture. Proceedings of 2013 AIChE Annual Meeting, Hilton San Francisco Union Square, San Francisco, CA, November 3 – 8, 2013.
8. Utkarsh Maheshwari, Bhuvanesh M., Suresh Gupta, Kinetic studies for the removal of copper from industrial wastewater using activated neem (*Azadirachta indica*) bark. Proceedings of 2013 AIChE Annual Meeting, Hilton San Francisco Union Square, San Francisco, CA, November 3 – 8, 2013.
9. Subhajit Majumder, Gayathri Gangadhar, Smita Raghuvanshi, Suresh Gupta, Bioremediation of Cu(II) contaminated aqueous solution using *Acinetobacter* Sp. Proceedings of 2013 AIChE Annual Meeting, Hilton San Francisco Union Square, San Francisco, CA, November 3 – 8, 2013.
10. Gayathri Gangadhar, Subhajit Majumder, Smita Raghuvanshi, Suresh Gupta, Biofiltration of Cu (II) Using Acclimated Mixed Culture, Proceedings of 2013 AIChE Annual Meeting, Hilton San Francisco Union Square, San Francisco, CA, November 3 – 8, 2013.
11. Amit Jain, B. V. Babu, A New Measure of Process Interaction in Time Domain Dynamics, Proceedings of 2013 American Institute of Chemical Engineers (AIChE) Annual Meeting, San Francisco, California, USA, November 03-08, 2013.
12. Amit Jain, Babu B. V., RGA Analysis of Systems with Uncertain Gain and Time Constants, Proceedings of 2013 American Institute of Chemical Engineers (AIChE) Annual Meeting, San Francisco, California, USA, November 03-08, 2013.
13. Utkarsh Maheshwari, A Review On Adsorption Process for the Removal of Dyes From Textile Industry Effluent", Proceedings of 2013 AIChE Annual Meeting, Hilton San Francisco Union Square, San Francisco, CA, November 3 – 8, 2013., pp.276.
14. Utkarsh Maheshwari, Bhuvanesh M., Blue Preserve – Recovery Of Oil Spilled In Sea A Review, Proceedings of 2013 AIChE Annual Meeting, Hilton San Francisco Union Square, San Francisco, CA, November 3 – 8, 2013, pp.291.
15. Amrita Singh, Sae Vyawahare, Utkarsh Maheshwari, Simulation and Optimization of the Partial Oxidation Process for the production of Synthesis Gas from Natural Gas using ASPEN PLUS, Proceedings of International Conference on Frontiers in Chemical Engineering, Organized by Department of Chemical Engineering, National Institute of Technology, Rourkela, 09-11 December, 2013.
16. Utkarsh Maheshwari, Amritendu Ghosh, The Role and Importance of Water Influx in Gas Reservoirs, Proceedings of International Conference on Frontiers in Chemical Engineering, Organized by Department of Chemical Engineering, National Institute of Technology, Rourkela, 09-11 December, 2013.
17. Utkarsh Maheshwari, Anindita Dutta, Purva Goel, Krunal Amin, Simulation and Optimization of Cumene Plant using ASPEN PLUS, Proceedings of International Conference on Frontiers in Chemical Engineering, Organized by Department of Chemical Engineering, National Institute of Technology, Rourkela, 09-11 December, 2013.
18. Avinash Narayan, Bhuvanesh M., Utkarsh Maheshwari, The use of ASPEN Plus for the Optimization of the Production of Acrylo Nitrile by Ammoxidation Process, Proceedings of 66th Annual Session of IChE in association with International Partners (CHEMCON-2013) and Joint Indo-North American Symposium, jointly organized by Mumbai Regional Center,

- Indian Institute of Chemical Engineers and Institute of Chemical Technology, Mumbai, 27-30 December 2013.
19. Sumeet Ghosalkar, Nikhil Palherkar, Utkarsh Maheshwari, Process Simulation of Ethyl tert-Butyl Ether (ETBE) Production from Naphtha Cracking Wastes, Proceedings of 66th Annual Session of IChE in association with International Partners (CHEMCON-2013) and Joint Indo-North American Symposium, jointly organized by Mumbai Regional Center, Indian Institute of Chemical Engineers and Institute of Chemical Technology, Mumbai, 27-30 December 2013.
  20. Shubhi Vashishtha, Shweta Sharma, Pratibha Pal, Utkarsh Maheshwari, Modeling, Simulation and Optimization of Naphtha reforming process on ASPEN Plus platform, Proceedings of 66th Annual Session of IChE in association with International Partners (CHEMCON-2013) and Joint Indo-North American Symposium, jointly organized by Mumbai Regional Center, Indian Institute of Chemical Engineers and Institute of Chemical Technology, Mumbai, 27-30 December 2013.
  21. Amrita, Saeed Vyawahare, Utkarsh Maheshwari, Optimization of Partial Oxidation Process for Synthesis gas production using ASPEN PLUS, Proceedings of 66th Annual Session of IChE in association with International Partners (CHEMCON-2013) and Joint Indo-North American Symposium, jointly organized by Mumbai Regional Center, Indian Institute of Chemical Engineers and Institute of Chemical Technology, Mumbai, 27-30 December 2013.
  22. Abhideep Singhai and Utkarsh Maheshwari, Chemical Looping Combustion (CLC): A Potential source for CO<sub>2</sub> Capture, Proceedings of 66th Annual Session of IChE in association with International Partners (CHEMCON-2013) and Joint Indo-North American Symposium, jointly organized by Mumbai Regional Center, Indian Institute of Chemical Engineers and Institute of Chemical Technology, Mumbai, 27-30 December 2013.
  23. Atanu Mukherjee, Venkata Bharadwaz Vedula, Siddharth Madhav Medipally, Utkarsh Maheshwari, Ethane Propane Recovery Process – Simulation and Optimization, Proceedings of 66th Annual Session of IChE in association with International Partners (CHEMCON-2013) and Joint Indo-North American Symposium, jointly organized by Mumbai Regional Center, Indian Institute of Chemical Engineers and Institute of Chemical Technology, Mumbai, 27-30 December 2013.
  24. P.K. Singh, S. Bhanot, H.K. Mohanta, Optimized Adaptive Neuro-Fuzzy Inference System for pH Control, International Conference on Advanced Electronic Systems (ICAES 2013) Organized by CSIR-CEERI Pilani.
  25. Rajeev Sharma, Pratik N Sheth, Experimental Investigations of Thermal decomposition of Jatropharesidue cake”, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.
  26. Amit Vikram Dutta, Pratik N Sheth, CFD Analysis of Flow around Static Mixer, Proceedings of Innovations in Chemical Engineering (ICE 2013), Department of Chemical Engineering, BITS-Pilani, Hyderabad Campus, India, Nov 15 -16, 2013.
  27. N. Prakash, S. Kumar, A. K. Sharma, Metallocene Catalyzed Commodity Thermoplastics: Synthesis, Structure and Applications, International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON - 2013), Dec. 27-30, 2013, Mumbai, India.
  28. N. Prakash, S. Kumar, A. K. Sharma, Metallocene Catalyzed Propylene Polymerization: Modeling, Simulation and Parameter Estimation using Differential Evolution Approach, International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON – 2013), Dec. 27-30, 2013, Mumbai, India.
  29. Somesh Mishra, Pratibha Pal, Suresh Gupta, Smita Raghuvanshi, Experimental studies for CO<sub>2</sub> mitigation using acclimated mixed culture, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.
  30. Subhajit Majumder, Amrita, Smita Raghuvanshi, Suresh Gupta, Bioremediation of Cr(VI) Contaminated Aqueous Solution using Pseudomonas sp., Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.



31. Avinash Narayan, Suresh Gupta, Smita Raghuvanshi, Experimental studies for biodegradation of dichloromethane, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.
32. Subhajit Majumder, Gayathri Gangadhar, Smita Raghuvanshi, Suresh Gupta, Bioremediation of Cu(II) Contaminated Aqueous Solution Using *Acinetobacter* sp., Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.
33. Utkarsh Maheshwari, Suresh Gupta, Column studies for Chromium(VI) removal using Activated Neem Bark as a low cost adsorbent, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.
34. Arun, Utkarsh Maheshwari, Suresh Gupta, Removal of Zn(II) from Aqueous Solutions using Activated Neem Bark as an Adsorbent: Equilibrium Studies, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.
35. Sae Vyawahare, Suresh Gupta, Removal of Cu(II) from Aqueous Solution using Nanoparticles as Adsorbents, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.

#### **C. CONFERENCES ATTENDED/PAPERS PRESENTED**

1. Mr. Subhajit Majumder, Dr. Suresh Gupta and Dr. Smita Raghuvanshi attended 3rd World Congress on Biotechnology, OMICS Group, HICC, Hyderabad, India, September 13-15, 2012
2. Dr. Pratik N Sheth, Dr. Pradipta Chattopadhyay, and Mr. Amit Jain attended conference on Advances in Chemical Engineering (ACE 2013), IIT Roorkee, India, 22- 24th February, 2013.
3. Dr. Smita Raghuvanshi attended 2nd Indo-German Workshop on Green Manufacturing (Theme: Life Cycle Engineering), November 07, 2013, Jointly organised by: Birla Institute of Technology & Science, Pilani, India and Technische Universitat (TU), Braunschweig, Germany held at BITS - Pilani, Pilani campus, India.
4. Dr. Hare Krishna Mohanta attended 3rd IEEE International Advanced Computing Conference (IEEE-IACC 2013) at Ajay Kumar Garg Engg. College, Ghaziabad, 22 – 23 Feb 2013.
5. Dr. Pratik N Sheth and Mr. Utkarsh Maheshwari attended International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.
6. Mr. Amit Jain attended 2013 American Institute of Chemical Engineers (AIChE) Annual Meeting, San Francisco, California, USA, November 03-08, 2013.
7. Dr. Suresh Gupta attended a day long workshop to review the existing scheme of the Engineering Services Examination conducted by the Commission organized by UPSC at the International Management Development Centre (IMDC) Indian Institute of Management, Vastrapur, Ahmedabad on the 3<sup>rd</sup> of October, 2013.

#### **D. BOOKS PUBLISHED/EDITED DURING THE YEAR**

NA

**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

The Department of Chemical Engineering, BITS Pilani, Pilani Campus has organized following workshop.

The department of chemical engineering and IChE Regional center, Pilani under the convenership of Dr Pratik N Sheth and Mr Amit Jain has organized the "Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE-2013)" during March 22-23,2013. The objectives of WAICEE-2013 was to equip participants with skills required to handle and operate sophisticated analytical instruments, which are vital in the present research scenario. The workshop provided a sound knowledge of the basic principles of analysis, an understanding of the instrumentation involved and gave opportunity to become familiar with practical techniques. The workshop comprised of two sessions. In the pre-lunch sessions, theoretical aspects related to various analytical instruments were addressed. The post-lunch sessions consisted of practical demonstration on various instruments, which helped to consolidate the presentations and discussion.

Dr S S Ray, Senior Principal Scientist and Head, NMR, UV, IR, and thermal area of the analytical sciences division of IIP Dehradun had kindly accepted to be chief guest for this workshop. Dr M I S Sastry, Chief Research Manager, Analytical Department, IOCL, R & D, Faridabad; Dr Asit Dutta & Mr Avinash Srivastava, Toshvin Analytical Ltd.; Dr Yogesh Satpute, Global Application/Product Specialist, Perkin Elmer India Limited; Dr Arvind Sharma, Dr Suresh Gupta, Dr Santosh Padhi & Dr Banasri Roy, BITS - Pilani delivered the key-note lectures. The demonstration of analytical equipment were handled by Dr Harekrishna Mohanta, Dr Pradipta Chattopadhyay, Dr Dipaloy Dutta, Mr Nikhil Prakash, Ms Priya Sande, Mr Ajay Kumar Pani, Mr Utkarsh Maheshwari, Mr Subhajit Majumder, and Mr Basheer Ahmed.

**F. INVITED TALKS GIVEN BY BITS FACULTY:**

1. Dr. Smita Raghuvanshi given an invited talk on "Biofiltration for removal of VOCs" in Bioprocessing India - 2013" held in IIT, Delhi from Dec 5 - 7, 2013.
2. Dr. Suresh Gupta and Dr. Dipaloy Datta delivered Lecture on "Design of Experiments" in the Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE) during March 22-23, 2013, BITS Pilani.
3. Dr. Banasri Roy delivered Lecture on "Basics of Molecular Vibrations and IR Spectroscopy" in the Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE) during March 22-23, 2013, BITS Pilani.
4. Dr. Arvind K Sharma delivered lecture on "Research at Chemical Engineering." in the Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE) during March 22-23, 2013, BITS Pilani.

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT**

Dr Tina Dettmer, Team leader "Life Cycle Engineering" Institute of Machine Tools and Production Technology, Braunschweig, Germany has delivered a talk on "Life Cycle Assessment – Providing Information for Life Cycle Engineering".

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. Dr. Suresh Gupta and Mr. Amit Jain have been awarded foreign travel grant for attending 2013 AIChE Annual Meeting, San Francisco, California, USA during November 03 - 08, 2013 by Council of Scientific and Industrial Research (CSIR).
2. Dr. Smita Raghuvanshi, Dr. Suresh Gupta, Mr. Amit Jain and Mr. Utkarsh Maheshwari have been awarded international travel grant for attending 2013 AIChE Annual Meeting, San Francisco, California, USA during November 03 - 08, 2013 by Centre for International Co-operation in Science (CICS).
3. Dr Pradipta Chattopadhyay, Dr. Pratik N Sheth and Dr. Suresh Gupta have been awarded Young Scientist, Fast Track Proposal.
4. Dr. Suresh Gupta was an Invited Member in A day long workshop to review the existing scheme of the Engineering Services Examination conducted by the Commission organized by UPSC at the International Management Development Centre (IMDC) Indian Institute of Management, Vastrapur, Ahmedabad on the 3<sup>rd</sup> of October, 2013.
5. Dr Arvind K Sharma, Dr Suresh Gupta, Dr Dipaloy Datta, Mr Nikhil Prakash, have been the external examiner for BTech (Chemical Engg.) students at Banasthali University.

6. Dr. Arvind K Sharma, External Examiner, MTech Viva, HBTI Kanpur, April 22, 2013.
7. Dr. Suresh Gupta, External Examiner, MTech Viva, ITM University Gwalior, December 17, 2013.
8. Dr. Suresh Gupta has been the International Conference Committee member for the International Congress on Chemical, Biological and Environmental Sciences, held from January 08 to January 10 in Taipei, Taiwan in 2013.
9. Faculty members are also the members of following organizations:
  - American Institute of Chemical Engineers (AIChE)
  - Indian Institute of Chemical Engineers (IChE)
  - International Association of Engineers (IAENG)

#### **I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION AND INDUSTRY IMMERSION**

Dr Pratik N Sheth has initiated efforts to collaborate with Prof G P Rangaiah, National University of Singapore in the field of Multi-objective Optimization. In Sem II 13-14, Mr Amit V Dutta is doing his BE THESIS under their combined supervision.

#### **J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR**

1. Petroleum Engineering Laboratory has been strengthened. The 10 pieces of equipment purchased for this laboratory are Redwood Viscometer, Engler Viscometer, Penetrometer apparatus, Bomb calorimeter, Drop point of grease, Melting point apparatus, Smoke point apparatus, Gum content testing apparatus, Oxidation stability tester, Sulfur analyzer.
2. Analytical and Environmental Laboratories have been strengthened by the addition of new equipments namely Volume trace analyzer, Gas Analyzer, Gas Chromatograph, Atomic Absorption Spectrophotometer, Fourier Transform Infrared Spectrometer, Digital Scanning Calorimeter, Indurr Superheat Furnaces, Auto Titrator, Rota Vapor System, Water Batch Shaker, Gas Solid Reactor, Digital Viscometer, Reactive Distillation setup, Dynamic Foam Analyzer (DFA 100).
3. Undergraduate laboratories have been strengthened by the addition of 70 new equipment in the different areas (Heat Transfer, Mass Transfer, Mechanical Operations, Fluid Mechanics, Chemical Reaction Engineering) of chemical engineering.
4. Ansys Academic Research CFD perpetual license software was purchased to strengthen the facility of CAD lab.

#### **K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES**

##### **Chemical Engineering Association**

During the year 2013, Chemical Engineering Association organized various activities providing students with opportunities to showcase their intellectual abilities and creative talents. The focus was on the technical festival APOGEE 2013 (15<sup>th</sup>-19<sup>th</sup> March) The festival proved to be a nurturing ground for the budding engineers of the association, who put their heads together and came up with a brilliant show of conceptual and application oriented projects. The association prepared 18 projects for APOGEE 2013. Many of the projects floated new ideas that left the observers mesmerized. The association also organized two competition during APOGEE 2013. Chem-e-Car, in which main objective was to design and construct a car that is powered with a chemical energy source. This event got good participation from students of BITS as well as outstation candidates. The other event was 360<sup>o</sup> Engineering, which was to test engineering skills and intuitions. The aim was to check the approach towards planning and optimization. It had three rounds, 1<sup>st</sup> round was online, based on which shortlisting had been done for further rounds.

In April, towards the end of the semester, the executive committee for the academic year 2013-14 was nominated and was officially announced in the farewell dinner organized for the Class of 2013. The Lakshmi Memorial Award was given to Mr. Kaushik for his best overall performance. The Tres Bien Award was given to Mr. Khantesh Aggarwal. Alumni award was given to Mr. Irvinder Noor Singh. The prestigious R P Vaid Award was given to Mr. Bhawarth Sangwan. Monali Dey Memorial Award was given to Mr. Jalaj Jain and Mr. Avinash Upadhyay for the best passing-out student. In that semester the association released the annual magazine PHENOMENON in the month of April, 2013.

During the first semester 2013-2014 association was involved in organizing the engineer's day celebration (September 15<sup>th</sup>), in collaboration with mechanical engineering association. In October, the association organized an Industrial Visit to R&D Centre of IOCL in Faridabad. Around 43 students from both Bachelors and Masters had enrolled for the visit. The farewell was organized for the Class of 2014 on 21<sup>st</sup> November.

#### **B1.10.4 Department: Chemistry**

Number of faculty members (as on 31 January 2013)

<b>Senior Professors, Professors</b>	05
<b>Associate Professors</b>	01
<b>Assistant Professors</b>	12
<b>Lecturers</b>	00
<b>Visiting Faculty</b>	00

**Head of the Department:** Prof. Subit Kumar Saha

**Contact details:** sksaha@pilani.bits-pilani.ac.in

**Number of Ph D Scholars:** 53

**Ph.D. Thesis Submitted and awarded during the year: Submitted:** 03

#### **A. SPONSORED RESEARCH ACTIVITIES**

Total number of Sponsored Projects in the department: 24. Details are given below.

##### **(i) Ongoing projects**

<b>PI</b>	<b>Funding Agency</b>	<b>Title of the Project</b>	<b>Amount (in lakhs)</b>
HOD	DST	DST-FIST Programme	87.00
HOD	UGC	UGC-SAP DRS II	70.00
Dr. Inamur Laskar	CSIR	Syntheses of Platinum (II) based pure blue emitting triplet harvesting materials and their applications in white organic light emitting diodes as single emissive dopants	20.20
Dr. Madhushree Sarkar	DST	Crystal engineering of metal organic frameworks using organic linkers derived from template-controlled solid-state reactions	23.40
Dr. Dalip Kumar	CSIR	Design and Synthesis of Novel Bioactive Heterocycles as Anticancer	13.58
Dr. Anil Kumar	UGC	Novel Synthetic Methodologies for Biologically Important Compounds using Lanthanide Triflates as Lewis Acids in Ionic Liquids	8.77

PI	Funding Agency	Title of the Project	Amount (in lakhs)
Dr. Dalip Kumar jointly with Dr. Okram Mukherjee Singh (Deptt. of Chemistry, Manipur University, Imphal)	DBT	Synthesis of Novel N,O,S containing heterocycles and evaluation of their anticancer activities	54.38
Dr. Saumi Ray	DST	Synthesis and detailed characterization of 'ship-in-a-bottle' complexes inside the microporous and mesoporous materials	20.00
Dr. Dalip Kumar	UGC	Design, Synthesis And Biological Evaluation of Indole-based Heterocycles as Anticancer Agents	7.51
Dr. Prashant U Manohar	DST	An Extensive Computational Development of Multi-reference Coupled-cluster Methods for Electronic Structure Investigations of Big Molecules	22.40
Dr. Paritosh Shukla	UGC	Transition metal-catalysed coupling/reductive coupling of saturated alkyl halides with 36electron withdrawing alkenes	11.96
Dr. Indresh Kumar	DST	Organocatalysis as green approach for synthesis of pyrrolidine/fused pyrrolidines: towards the synthesis of related alkaloids	21.90
Dr. Surojit Pande	BITS-Pilani, RIG	Synthesis and Characterization of Metal Oxide (TiO <sub>2</sub> and IrO <sub>2</sub> ) Dendrimer-Encapsulated Nanoparticles (DENs ) for Catalysis and Electrocatalysis	2.00
Dr. Rajeev Sakhuja	BITS-Pilani, RIG	Design and Synthesis of Bile acid Nucleosides conjugates linked via amino acids as potential anticancer agents.	2.00
Dr. Indresh Kumar	BITS-Pilani, RIG	Organocatalytic easeade towards substituted pyrrole-3-carboxyaldehydes: A variation in Paal-Knorr Pyrrole Synthesis	2.00
Dr Dalip Kumar & Dr Anil Kumar	Ranbaxy, India	Development of Novel Synthetic Methods	27.00
Dr. Rajeev Sakhuja	UGC	Novel-Amino, $\alpha$ -Aminoxy and $\alpha$ -Hydrazino acids Linked Bio-conjugates: Design, Synthesis and Biological Evaluation	6.00
Dr. Rajeev Sakhuja	BITS, Seed grant	Design of Ionic Liquid linked Benzotriazoles as Useful Synthetic Auxiliaries in Organic Synthesis.	9.80
Dr. Rajeev Sakhuja	DST	Design of Synthetically Accessible and Tunable Azino-fused Chromene based Organogelators	24.70
Dr. Surojit Pande	UGC start-up	Size-Dependent Hydrogenation Catalysis with Mono-(Pd and Pt) and Bimetallic (Pd@Pt) Nanoparticles in Quantum Dot Region	6.00
Dr. Surojit Pande	DST fasttrack	Synthesis and Characterization of (Metal Oxide) <sub>core</sub> - Metal <sub>shell</sub> Nanoparticles in Quantum Dot Region and Their Application in Electrocatalysis	24.93

Dr. Anil Kumar	CSIR, New Delhi	Exploration of Novel Ionic Liquid-Supported Sulfonyl Reagents for Organic Synthesis	16.82
Dr. Shamik Chakraborty	UGC	Design of new ionic receptor molecules derived from Schiff bases: Syntheses and their spectroscopic and theoretical characterization	6.00
Dr. Shamik Chakraborty	BITS- Pilani, RIG	Design and spectroscopic characterization of novel donor-acceptor systems to be used in light-energy conversion devices	2.00

**(ii) Projects sanctioned**

PI	Funding Agency	Title of the Project	Amount (in lakhs)
Dr. Ajay K. Sah	UGC	Synthesis, Metallochemistry and Reactivities of D-Glucose derived Glycoconjugates	9.133
Dr. Bharti Khungar	UGC	Synthesis, Characterization and Applications of Novel Ionic Liquid-supported Metal Complexes	13.40
Dr. Ram Kinkar Roy	DST India	Development and Applications of Density Functional Reactivity Theory Based Modeling Techniques to Understand the Energetics of Reactive and Non-reactive Interactions	32.00 (Approx.)

**(iii) Projects completed**

PI	Funding Agency	Title of the Project	Amount (in Lakhs)
Dr. Inamur Laskar	DST	Syntheses of efficient and pure blue triplet emitting materials for fabrication of white organic light emitting diodes (WOLEDs)	22.17
Dr. Madhushree Sarkar	BITS	Guest Exchange Dynamics of Porous Metal-organic Frameworks	14.65
Dr. Paritosh Shukla	BITS Research Initiation Grant	"Transition metal-catalysed Coupling/Reductive Coupling of Saturated Alkyl halides with Electron Withdrawing Alkenes"	2.00
Dr. Ram Kinkar Roy	DST	Conceptual Density Functional Theory Based Modeling of Biomolecular Systems	24.52
Dr. Subit Kumar Saha	Aditya Birla Group	Study on physicochemical and interfacial properties of some mixed micellar systems of novel Gemini and conventional surfactants in water and water-organic solvent mixed media	10.00

**B. PUBLICATIONS**

The faculty of the department published forty two papers in international/national refereed journals during the year.

1. Kiran Soni, Ajay K. Sah, " Alanyl glycoconjugate: a selective receptor for free and protein-bound tryptophan". *RSC Adv.*, **2013**, 3, 12096.
2. Yoichi Habata, Mari Ikeda, Ajay K. Sah, Kanae Noto, Shunsuke Kuwahara, " Selective Retention of Methanol over Ethanol by a Cyclen-Based Cryptand/Copper(II) Complex". *Inorg. Chem.*, **2013**, 52, 11697.
3. S. S Panda, M. Chand, Rajeev Sakhuja, S. C Jain, "Xanthones as Potential antioxidants". *Curr. Med. Chem.*, **2013**, (in press).
4. D. Morgan, K. Kondabolu, A. Kuipers, Rajeev Sakhuja, K. L. Robertson, N. E. Rowland, R. G. Booth, "Molecular and behavioral pharmacology of two novel orally-active 5HT2 modulators: Potential utility as antipsychotic medications". *Neuropharmacology*, **2013**, 72, 274.
5. K. Kushwaha, Rajeev Sakhuja, S. C. Jain, "Synthesis and antimicrobial activity of novel bis-azaphenothiazines". *Med. Chem. Res.*, **2013**, 22, 1159.
6. P. Hajra, S. Shyamal, H. Mandal, P. Fageria, S. Pande, C. Bhattacharya, Photocatalytic activity of Bi<sub>2</sub>O<sub>3</sub> Nanocrystalline Semiconductor developed via Chemical-bath Synthesis, *J. Electrochimica Acta* (2013).
7. N Suresh, H N Nagesh, KVG Chandra Sekhar, Anil Kumar, AN Shirazi, K Parang, Synthesis of novel ciprofloxacin analogues and evaluation of their anti-proliferative effect on human cancer cell lines, *Bioorg. Med. Chem. Lett.* **2013**, 23, 6292–6295.
8. Pinku Kaswan, Kasiviswanadharaju Pericherla, and Anil Kumar, Ligand free copper-catalyzed ullmann type C-N coupling: Regioselective synthesis ofazole substituted imidazo[1,2-a]pyridines, *Synlett*, **2013**, 24, 2751–2757.
9. G Shelke VK Rao, R Tiwari, BS Chhikara, K Parang and Anil Kumar Bismuth triflate-catalyzed condensation of indoles with acetone, *RSC Adv.* **2013**, 3, 22346–22352.
10. K Pericherla, Pinku, Poonam Khedar, Bharti Khungar, Keykavous Parang and Anil Kumar, Copper catalyzed tandem oxidative C–H amination/cyclizations: Direct access to imidazo[1,2-a]pyridines *RSC Adv.* **2013**, 3, 18923-18930.
11. K Pericherla, A Jha, B Khungar and Anil Kumar Copper-catalyzed tandem azide-alkyne cycloaddition, Ullmann type C-N coupling and intramolecular direct arylation, *Org. Lett.* **2013**, 15,4304–4307.
12. K Pericherla, Anil Kumar, A Jha, Povarov-reductive amination cascade to access 6-aminoquinolines and anthrazolines, *Org. Lett.* **2013**, 15, 4078–4081.
13. K Pericherla, VK Rao, RK Tiwari; N DaSilva, KT Mccaffrey, Y Ahmadibeni, A González-Sarrías, NP Seeram, K Parang, Anil Kumar, Synthesis and antiproliferative activities of quebecol and its analogs, *Bioorg. Med. Chem. Lett.* **2013**, 23, 5329–5331.
14. Anil Kumar, G Ye, X Gu, Y Wang, G Sun, K Parang, Synthesis of pyrazolo[3,4-d]pyrimidine derivatives and evaluation of their Src kinase inhibitory activities, *Chem. Bio. Interface* **2013**, 3, 264-269.
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31. Kumari Suman, Rajnikant, Vivek K. Gupta and Madhushree Sarkar\* "Cooperative effect of "flexible" interaction and "flexible" framework in reversible intake and removal of aromatic guest molecules" *Dalton Trans.* **2013**, 42, 8492-8497
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37. Amrit Sarmah, R. K. Roy, 'Understanding the Interaction of Nucleobases with Chiral Semiconducting Single-Walled Carbon Nanotubes: An Alternative Theoretical Approach Based on Density Functional Reactivity Theory (DFRT)' *J. Phys. Chem. C*, **2013**, 117, 21539.
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39. Sonu, Amit K. Tiwari, Subit K. Saha, "Study on mixed micelles of cationic gemini surfactants having hydroxyl group in the spacers with conventional cationic surfactants: Effects of spacer group and hydrocarbon tail length". *Ind. Eng. Chem. Res.*, **2013**, 52, 5895.
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41. Amrita Chakraborty, Shamik Chakraborty, and Tapan Ganguly, "A detailed study on the mechanisms of trans-cis isomerization within a novel synthesized photoswitchable dyad: both experimental and theoretical approaches". *Indian Journal of Physics*, DOI 10.1007/s12648-013-0344-y (2013).
42. Shun-ichi Ishiuchi, Kohei Yamada, Shamik Chakraborty, Kiyoshi Yagi, Masaaki Fujii, "Gas-Phase Spectroscopy and Anharmonic Vibrational Analysis of the 3-Residue Peptide Z-Pro-Leu-Gly-NH<sub>2</sub> by the Laser Desorption Supersonic Jet Technique". *Chemical Physics*, **419**, 145, **2013**.

### C. CONFERENCES ATTENDED/PAPERS PRESENTED

1. Ajay Kumar Sah, " Studies on 4,6-O-ethylidene- $\beta$ -D-glucopyranosylamine derived molecules". (IL) in National Conference on Innovative Molecules for Sustainable Future, held at Thapar University, Patiala. **October 24-26, 2013**.
2. Noorullah Baig MD and Ajay K. Sah, " Synthesis and reactivity of amino acid derived glycoconjugates". (poster) in National Conference on Innovative Molecules for Sustainable Future, held at Thapar University, Patiala. **October 24-26, 2013**.
3. S. M. Abdul Shakoor, A. Kumar, Rajeev Sakhujia, "Microwave-assisted Synthesis of Imidazo[1,2-a]pyridin- 3-yl)quinoxalinones", (Poster Presentation), in 19th International Conference (ISCBC-2013) held at Mohanlal Sukhadia University, Udaipur, **March 2 -5, 2013**.
4. S. Pande and R. M. Crooks, Synthesis, Characterization, and Application of Pt and Pd Dendrimer-Encapsulated Nanoparticles in Quantum Dot Region. 100th Indian Science Congress at University of Calcutta, Kolkata, **January 3-7, 2013 (Poster)**.
5. Pinku Kaswan, K. Pericherla, Anil Kumar, Ligand free CuI catalyzed amination of 2-(2-bromophenyl)H-imidazo[1,2-a]pyridines, 19th ISCB International Conference (ISCBC-2013), Mohanlal Sukhadia University, Udaipur, Rajasthan, **2 -5 March, 2013**.
6. Poonam Khedar, K. Pericherla, Anil Kumar, Synthesis of novel 1-((1-(2-phenoxy-2-phenyl ethyl)-1H-1,2,3-triazol-4-yl)methyl)-4-phenylpiperazine, Recent advances and current trends in chemical and biological sciences, 19th ISCBC-2013, Mohanlal Sukhadia University, Udaipur, **2 - 5 March 2013**.
7. Manoj Kumar Muthyala and Anil Kumar, Synthesis of ionic liquid-supported hypervalent iodine reagent and application in organic Synthesis, 19th International Conference on Chemical Biology for Discovery: Perspectives and Challenges organized by the Indian Society of Chemists & Biologists (ISCBC-2013), Department of Chemistry, Mohanlal Sukhadia University Udaipur, **2-5 March, 2013**.

8. Manoj Kumar Muthyala and Anil Kumar, Synthesis of ionic liquid-supported hypervalent iodine reagent and application in organic Synthesis, 14th Tetrahedron symposium, Vienna, Austria, **25 - 28th June, 2013.**
9. VK Rao, Ganesh M. Shelke, R Tiwari, K Parang, Anil Kumar "Sequential hydroarylation/heck oxyarylation: a simple and efficient strategy for synthesis of 2,3-diarylnaphthofurans" at 19th International Conference on Chemical Biology for Discovery: Perspectives and Challenges organized by the Indian Society of Chemists & Biologists (ISCBC-2013), Department of Chemistry, Mohanlal Sukhadia University Udaipur, **2-5th March, 2013.**
10. Ganesh M. Shelke, VK Rao, R Tiwari, K Parang, Anil Kumar "Bismuth triflate catalysed reaction of indole with acetone," at 19th International Conference on Chemical Biology for Discovery: Perspectives and Challenges organized by the Indian Society of Chemists & Biologists (ISCBC-2013), Department of Chemistry, Mohanlal Sukhadia University Udaipur, **2-5th March, 2013.**
11. Kasiviswanadharaju Pericherla, Amitabh Jha, Bharti Khungar and Anil Kumar, Copper-catalyzed regioselective synthesis of 1,2,3-triazole fused imidazo[1,2-a]pyridines via tandem [3+2]azide-alkyne cycloaddition, ullmann type C-N coupling, and intramolecular direct arylation, at International Conference on "Recent Trends in Chemical Sciences", Vellore Institute of Technology, Vellore, Tamilnadu, **December, 5-7, 2013.**
12. Sunita Choudhary, Manoj Kumar Muthyala, Anil Kumar "Ionic liquid-supported sulfonyl hydrazine: A novel 'catch and release' reagent for synthesis of pyrazoles" at 19th International Conference on Chemical Biology for Discovery: Perspectives and Challenges organized by the Indian Society of Chemists & Biologists (ISCBC-2013), Department of Chemistry, Mohanlal Sukhadia University Udaipur, **2-5th March, 2013.**
13. Anil Kumar, Application of ionic liquids and ionic liquid-supported reagents in organic synthesis, in 15th National Symposium in Chemistry (NSC-15) held at Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi, **31st January – 3rd February 2013.**
14. Dalip Kumar, Bhupendra Mishra, K. P. Chandra Shekar, presented a poster on "Synthesis of *meso*-(4-cyanophenyl)porphyrins, their photophysical and DNA photocleavage studies" 19<sup>th</sup> International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 02-05, 2013.**
15. Dalip Kumar, K. P. Chandra Shekar, Bhupendra Mishra, presented a poster on "Synthesis and DNA cleavage studies of *meso*-substituted porphyrin 1,3,4-oxadiazoles" 19<sup>th</sup> International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 02-05, 2013.**
16. Dalip Kumar, V. Arun, presented a poster on "Design, Synthesis and anticancer activity of novel bis(indolyl)-1,3,4-oxadiazoles" 19<sup>th</sup> International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 02-05, 2013.**
17. Dalip Kumar, Meenakshi Pilania and N. Maruthi Kumar, presented a poster on "Iodobenzene diacetate-mediated synthesis of 2-arylamino-1,3,4-oxadiazoles" 19<sup>th</sup> International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 02-05, 2013.**
18. Dalip Kumar, Mukund. P. Tantak and Anil Kumar presented a poster on "A facile and efficient synthesis of 2-arylamino-5-(3'-indolyl)-1,3,4-oxadiazoles as cytotoxic agents. 19<sup>th</sup> International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 02-05, 2013.**
19. Dalip Kumar, Savita Pooniya, K. P. Chandra Shekar and V. Arun presented a poster on "Copper catalyzed efficient synthesis of arylaminoporphyrins" 19<sup>th</sup> International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 02-05, 2013.**
20. Inamur R. Laskar, "Variability of Aggregation Induced Enhanced Phosphorescent Emission in a Common Framework of Cyclometalated Iridium(III) Complexes and their Applications in Bio-imaging and Sensors", (oral), 2013 (ACS-2013), held at Dept. of Chemistry, M. D. University, Rohtak, **March 1-2, 2013.**
21. Inamur R. Laskar, "Aggregation Induced Enhanced Phosphorescent Emission and their Applications", (invited talk), 2013 (Aligarh Nano.-III, 'National Conference on Nanoscience and Nanotechnology) held at Aligarh University', **March 15-16, 2013.**

22. Inamur R. Laskar, "Tuning of Aggregation Induced Emission Wavelength in a Common Framework of Cyclometalated Iridium(III) Complex: Micellar Encapsulated Probe in Bioimaging" (oral), 2013 (15<sup>th</sup> Asia Chemical Congress 2013) held at Resorts World Sentosa, Singapore, **19-23 August, 2013**.
23. Indresh Kumar, Oral presentation entitled "Organocatalysis as Green Strategy For the Asymmetric Synthesis of Small Molecule Natural Products (SMNPs)" during Conference on "Emerging Trends in Development of Drugs and Devices" at Department of Chemistry, University of Delhi, during **21-23 January 2013**.
24. Indresh Kumar, Oral Presentation entitled "An organocatalytic direct Mannich–cyclization cascade as [3+2] annulation: asymmetric synthesis of 2,3-substituted pyrrolidines" during 19-International conference of Indian Society of Chemists and Biologists (ISCB) at M. S. University, Udaipur, **2-5 March 2013**.
25. Indresh Kumar, Oral presentation entitled "Organocatalytic Cascade Strategy For the Asymmetric Synthesis of Small Molecule Natural Products (SMNPs)" during National Conference on Frontiers in Physical, Chemical and Biological Sciences (FPCBS-2013), Organized by Department of Chemistry University of Pune, Pune, during **4-6 October, 2013**
26. Kumari Suman, Madhushree Sarkar\* "Interference of Pyridine moiety & H<sub>2</sub>O in formation of Amide-to-Amide Hydrogen Bonds: A Case Study on the Crystal Structures of Mono-pyridyl-mono-amidealkanes and Bis-pyridyl-bis-amidealkanes" (Poster) 19th ISCB International Conference jointly organized by Department of Chemistry and Indian Society of Chemists & Biologists, at Mohanlal Sukhadia University, Udaipur (Raj), **2-5 March, 2013**.
27. Rituparna Bhattacharjee, Ram Kinkar Roy, "Variants of Hardness Potential: Development and Applications" at Electronic structure and dynamics on molecules and clusters (ESDMC)", (poster) held in IACS, Kolkata on **17-20 February, 2013**.
28. Amrit Sarmah, Ram Kinkar Roy, "A DFRT based study to understand the impact of fullerene symmetry on the kinetic and thermodynamic stability of NanoBud", (poster) in the Current Trend in Theoretical Chemistry 2013 (CTTC-2013) held at BARC Mumbai, **September 26-29, 2013**.
29. Sonu, Amit K. Tiwari, Subit K. Saha, "Study on interaction between gemini surfactants and bovine serum albumin: The spacer group effect" (poster) in the International Conference on Interdisciplinary Areas With Chemical Sciences 2013 (ICIACS-2013) held at Panjab University, Chandigarh, **October 30th - November 1st, 2013**.
30. Amit K. Tiwari, Sonu, Surojit Pandey, Subit K. Saha, "Orientation of gemini surfactant surrounding the metal nanoparticles: Aided by steady-state fluorescence technique" (poster) in the International Conference on Interdisciplinary Areas With Chemical Sciences 2013 (ICIACS-2013) held at Panjab University, Chandigarh, **October 30th - November 1st, 2013**.
31. Sonu, Amit K. Tiwari, Subit K. Saha, "Solvation and rotational relaxation dynamics of Coumarin 153 in pure and mixed surfactant systems of cationic gemini surfactants and TX-100: The spacer group effect" (oral) in 5th Asian Conference on Colloid and Interface Science 2013 (ACCIS 2013) held at University of North Bengal, Darjeeling, **November 20 -23, 2013**.
32. Subit K Saha, M. Sowmiya, Amit Kumar Tiwari, Sonu, "Study on Binding Interactions of a Hemicyanine Dye with Nanotubes of  $\beta$ -Cyclodextrin and Effect of a Hofmeister Series of Potassium Salts" (oral) in 5th Asian Conference on Colloid and Interface Science 2013 (ACCIS 2013) held at University of North Bengal, Darjeeling, **November 20 -23, 2013**.
33. Archana Choudhary, 'Spectroscopic and magnetic studies of 'Ship-in-a-bottle' Ni(II) Schiff complexes in zeolite-Y (poster) in the 19th ISCB International Conference held at Mohanlal Sukhadia University, Udaipur, **March 2-5, 2013**.
34. Shamik Chakraborty, "Laser Spectroscopy in Gas phase: Probing Conformational Landscape of Bio-molecules" (Poster presentation). Discussion meeting on spectroscopy and dynamics of Molecules and Clusters "SDMC-2013", Venue: Chunda Palace, Udaipur, Rajasthan - 313 001, INDIA. **February 21-24, 2013**.

**D. BOOKS PUBLISHED/EDITED DURING THE YEAR: Nil**

**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED: Nil**

**F. INVITED TALKS GIVEN BY BITS FACULTY**

1. Ajay Kumar Sah, "Studies on 4,6-O-ethylidene- $\beta$ -D-glucopyranosylamine derived molecules", in National Conference on Innovative Molecules for Sustainable Future, held at Thapar University, Patiala. **October 24-26, 2013.**
2. Rajeev Sakhuja, "Novel 4-Substituted 2-Dimethylaminotetralins: Synthesis and Binding Affinity at Serotonin 5-HT<sub>2</sub>-type G Protein-Coupled Receptors with In Silico Docking Studies", (Oral Presentation), in 19th International Conference (ISCBC-2013) held at Mohanlal Sukhadia University, Udaipur, **March 2 -5, 2013.**
3. Anil Kumar, "Ionic liquids as soluble support in organic synthesis" in 19th International Conference on Chemical Biology for Discovery: Perspectives and Challenges organized by the Indian Society of Chemists & Biologists (ISCBC-2013), held at Department of Chemistry, Mohanlal Sukhadia University Udaipur, **2-5th March, 2013.**
4. Anil Kumar, Application of ionic liquids and ionic liquid-supported reagents in organic synthesis, in Symposium on Modern Trends in Chemistry, held at Chemistry Department, The Maharaja Sayajirao University of Baroda, Vadodara, **21-23 March 2013.**
5. Dalip Kumar, Design and synthesis of novel porphyrin conjugates as photochemically triggered cytotoxic agents, " 19<sup>th</sup> International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 02-05, 2013 (Invited Lecture).**
6. Inamur R. Laskar delivered an invited lecture on "Aggregation Induced Enhanced Phosphorescent Emission and their Applications", National Conference on Nanoscience and Nanotechnology, held at Aligarh Muslim University (AMU), during **March 15-16, 2013.**
7. Indresh Kumar, Invited Lecture entitled "Organocatalysis: A Recent Trend in Asymmetric Synthesis of Small Molecule Natural Products (SMNPs)" at National Institute of Interdisciplinary Science and Technology-(NIIST-CSIR), Trivandrum on **June 12, 2013.**
8. Indresh Kumar, Invited Lecture entitled "Asymmetric Organocatalysis: A Recent Trend in Asymmetric Synthesis Bioactive Natural Products" at Jawaharlal Nehru Centre For Advanced Scientific Research (JNCASR), Bangalore, on **June 25, 2013.**
9. Indresh Kumar, Invited Lecture entitled "Organocatalysis: A Recent Trend in Asymmetric Synthesis of Small Molecule Natural Products (SMNPs)" at National Chemical Laboratory-(NCL-CSIR), Pune on **June 27, 2013.**
10. Dr. Prashant Uday Manohar delivered a lecture on "A noniterative triples correction to EOM-CCSD ansatz for ionized states and spin-flipping and spin conserving excited states", during his summer visit to the Electronic Structure Theory Group at National Chemical Laboratory, Pune in **June-July 2013.**
11. Dr. Ram Kinkar Roy chaired a session in an international conference Electronic Structure and Dynamics of Molecules and Clusters (ESDMC) held in IACS, Kolkata on 17-20 **February, 2013.**
12. Dr. Subit Kumar Saha delivered an invited talk on "Effect of hydroxyl group substituted spacer group of cationic gemini surfactants on solvation dynamics and rotational relaxation of Coumarin-480 in aqueous micelles" in XVIth National Conference on Surfactants, Emulsions and Biocolloids (NATCOSEB) organized jointly by the Indian Society for Surface Science and Technology, Kolkata and Central Leather Research Institute, Adyar, Chennai during **November 28—30, 2013.**

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT**

Speaker	Designation	Topic	Date
Prof. Ram S. Mohan, Professor and Fulbright-Nehru Visiting Fellow in the Department of Chemistry, Illinois Wesleyan University, Bloomington, USA.	Professor	Delivered seven lectures on Green Chemistry	12.02.2013-18.02.2013
Prof. Ram S. Mohan, Professor and Fulbright-Nehru Visiting Fellow in the Department of Chemistry, Illinois Wesleyan University, Bloomington, USA.	Professor	Green Chemistry in Pharmaceutical Industry I	19.02.2013
Prof. Ram S. Mohan, Professor and Fulbright-Nehru Visiting Fellow in the Department of Chemistry, Illinois Wesleyan University, Bloomington, USA.	Professor	Green Chemistry in Pharmaceutical Industry II	19.02.2013
Prof. Ram S. Mohan, Professor and Fulbright-Nehru Visiting Fellow in the Department of Chemistry, Illinois Wesleyan University, Bloomington, USA.	Professor	Laboratory Safety	20.02.2013
Prof. Ram S. Mohan, Professor and Fulbright-Nehru Visiting Fellow in the Department of Chemistry, Illinois Wesleyan University, Bloomington, USA.	Professor	Environmentally Friendly Organic Synthesis Using Bismuth and Iron Compounds	20.02.2013
Dr. Dipankar Koley Department of Chemistry Oregon State University Oregon, USA	Assistant Professor	Applications of electrochemical techniques to study biological systems: From cancer cells to bacterial biofilms	13.03.2013
Dr. K. A. Suri, Ex-Chief Scientist, Head, Natural Product Chemistry & Indian Institute of Integrative Medicine (CSIR), Jammu-Tawi	Ex-Chief Scientist	Value Addition of Some Important Herbal Plants used in Single and Polyherbal Formulations	30.09.2013

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. Mr. Kasiviswanadharaju Pericherla received best oral presentation award for the paper entitled "regioselective synthesis of 1,2,3-triazole fused imidazo[1,2-a]pyridines via copper catalyzed tandem azide-alkyne cycloaddition, Ullmann-type C–N coupling, and intramolecular direct arylation" at International Conference on Emerging Trends in Chemical Sciences held at VIT University, Vellore-632 014, Tamil Nadu during December 5-6, 2013.
2. Dr. Anil Kumar received ISCB Young Scientist Award 2013 by Indian Society of Chemists and Biologists, Lucknow.
3. Mr. Ganesh M. Shelke received Senior Research Fellowship (SRF) from CSIR, New Delhi.
4. Miss. Khima Pandey qualified CSIR-UGC NET exam and received Junior Research Fellowship from UGC, New Delhi.
5. Dr. Dalip Kumar received Honorary Diploma by International Charitable Foundation "Scientific Partnership" of Russia (March 2013).

6. Dr. Dalip Kumar, Associate Editors, Chemistry & Biology Interface, (journal of Indian Society Chemists and Biologists) CHEMISTRY& BIOLOGY INTERFACE is an international, peer-reviewed, open access, online bimonthly journal.
7. Dr. Dalip Kumar, Zonal Secretary, North Zone, Indian Society of Chemists and Biologists (ISCB), CDRI, Lucknow.
8. Dr. Bharti Khungar received Summer Science Academies' Research Fellowship 2013 and worked at Bhabha Atomic Research Centre, Mumbai.
9. Inamur R. Laskar received best oral award on "Variability of Aggregation Induced Enhanced Phosphorescent Emission in a Common Framework of Cyclometalated Iridium(III) Complexes and their Applications in Bio-imaging and Sensors" conference on Advances in Chemical Sciences-2013, M. D. University, Rohtak, March, 1-2, 2013.
10. Parvj Alam received best oral presentation on "Tuning of Aggregation Induced Enhanced Phosphorescent Emission in a Common Framework of Cyclometalated Iridium(III) Complexes and their Applications as Probe in cellular Imaging" symposium on 5<sup>th</sup> National Symposium for Materials Research Scholars, MR-13, IIT Bombay, May 8-10, 2013.
11. Dr. Indresh Kumar, Award of "INSA-Visiting Scientist Fellowship-2013" by INSA-New Delhi.
12. Dr. Indresh Kumar, Best oral presentation award at national conference on "Frontiers in Physical, Chemical and Biological Sciences" organized by the Department of Chemistry, University of Pune, Pune during October 04-06, 2013.
13. Sonu received best poster award on "Study on interaction between gemini surfactants and bovine serum albumin: The spacer group effect" International Conference on Interdisciplinary Areas With Chemical Sciences 2013 (ICIACS-2013), Panjab University, Chandigarh, October 30th - November 1st, 2013.

#### **I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION**

1. Dr. Surojit Pande made international collaboration with Prof. Ru-Shi Liu, Department of Chemistry, National Taiwan University.
2. Dr. Anil Kumar visited Department of Pharmaceutical Sciences and College of Pharmacy, University of Rhode Island as visiting scientist from May 29, 2013 to June 30, 2013.
3. Dr. Prashant Uday Manohar is a developer of a commercial quantum-chemistry package "Q-CHEM Inc." (electronic structure, molecular mechanics and molecular dynamics) and continues to collaborate with the Q-CHEM developers across the world.
4. Dr. Ram Kinkar Roy visited Advanced Institute for Computational science (AICS), RIKEN, Kobe, Japan as Senior Visiting Scientist for 2 months in the summer of 2013. Collaborative research work has started with the Computational Chemistry Research Unit of RIKEN.
5. Dr. Subit Kumar Saha made international collaboration with Prof. Chien-Hsiang Chang, Department of Chemical Engineering, National Cheng Kung University, Tainan, Taiwan.

#### **J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR**

Vacuum Rota-evaporator, Micro-Centrifuge, Chiral columns.

We procured 8 PCs those are being used for some M.Sc. Laboratory courses and partly in some Theory courses as well. We have introduced a few Computational Chemistry Experiments in the course: Chemical Experimentation Laboratory II where students get hands-on experience in using the software like Gaussian 09, Q-CHEM, etc.

## K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES

### Activities of Chemistry Association

During the academic year 2013-2014, the association has been involved in various activities. This report summarizes the work done by the association during the year 2013-2014.

Apogee Project Meets: Around 3 to 4 project meets were conducted so as to make the fresher's as well as the sophomores aware of the project ideas and how they could contribute to the ideas. The involvement of the first year students was good. Totally, we had 9 ideas which were shortlisted by the Apogee project team and 6 of them were presented finally during APOGEE-2013. Two projects were recognized and bagged the first prize in pure science category and paper presentation.

Association conducted 2 events Who-dunnit and Lab-Quiz during APOGEE-2013 which witnessed huge level of participation. This year, the efforts by the organizing team were praised and the feedback received by the participants was excellent.

Farewell to the Batch of 2009 was held at VFAST where all the 41 students of their batch came and received the token of membership from various faculty members. Certificates were given to both the members as well as the post holders of the 2009 batch for their contribution to the Chemistry Association. All the students from various batches got an opportunity to informally interact with various faculty members. Usually, the farewell to the seniors used to be held in the Institute messes. But, this year we planned to change the venue to VFAST lawns and the response received from everyone was excellent.

In order to cherish the memories, chemistry association organized a parting treat in the month of May after the comprehensive exams. It was held at VFAST and each one of them felt very nostalgic after it.

Get together and interaction of fresher's with 2nd and 3rd yearites was held on 12th and 18th Aug. 2013 in Sky lawns. The juniors were informed about the educational and structural system of the institute and also about the activities of association. A formal meet for freshers with seniors and faculty of department was held on 22nd Aug. 2013 in LTC 5106. The meeting was attended by 13 faculty members and about 80 students of 1st, 2nd, 3rd years. The students were introduced to the faculty and were told about different courses and research areas of the department. Students were also informed regarding Association Activities and relevance via audio & video mode by President, Secretary, Apogee coordinator. The meeting was finally concluded with refreshment.

About 17 students participated to visit all labs of the Chemistry Department. They interacted with research scholars, got a fair deal of idea about ongoing research and a better understanding of laboratory research & orientation. The visit was a very good and students liked the interaction and exposure to labs.

The discussion about prototype presentation during Apogee-2014 happened on 13th Sep. 2013. Previous years projects were shared with all present so they got the idea about how to choose project and work accordingly. The second meeting happened on 11th Oct. 2013 and project ideas were shared and details of project such as implementation methodology, feasibility etc. were explained. Finally, list of projects with student details was finalized in due time. On 9th Nov. 2013 a total of 13 projects for Apogee-2014 were sent to project review committee out of which 7 projects got selected in first round.

Sweat shirt of Chemistry Association was introduced and student signing was taken. Good response and appreciable signing was received.

**B1.10.5 Department: Computer Science & Information Systems**

Number of faculty members (as on 31<sup>st</sup> December 2013)

<b>Senior Professors, Professors</b>	05
<b>Associate Professors</b>	03
<b>Assistant Professors</b>	05
<b>Lecturers</b>	16
<b>Visiting Faculty</b>	01

**Head of the Department: Professor Navneet Goyal**

**Contact details:** goel@pilani.bits-pilani.ac.in

**Number of PhD Scholars:** 10

**A. SPONSORED RESEARCH ACTIVITIES & FUNDING**

1. Yashvardhan Sharma, Design and Development of Opinion Mining Framework, Department of Science & Technology (DST), 13.26 lakhs, 3 Years (July 2013- June 2016).

**B. PUBLICATIONS**

The faculty of the department published 06 papers in international refereed journals during the year.

1. Hafizul Islam, Biswas G.P. and Choo K.K-R, Cryptanalysis of an Improved Smartcard-based Remote Password Authentication Scheme, Information Sciences Letters - An International Journal, 3, 1, 35-40, Natural Sciences Publishing.
2. Pankaj Vyas and RK Mittal, Hazard analysis of Unified Modelling Language sequence and state charts using software fault tree analysis, International Journal of Critical Computer Based Systems (IJCCBS) 4, 2, 173-197, Inderscience Publishers.
3. Poonam Goyal, Mehala N and A Bansal A, A robust approach for finding conceptually related queries using feature selection and tripartite graph structure, Journal of Information Science, 39, 5, 575-592, Sage UK.
4. Murali Parameswaran and Chittaranjan Hota, Sector Based Multicast Routing Algorithm For Mobile Ad-Hoc Networks, International Journal of Wireless & Mobile Networks (IJWMN), 5, 5, 49--63, October, 2013.
5. Rahul Banerjee, Sailesh Conjeti Singh Rajiv Ranjan, A Comparative Evaluation of Neural Network Classifiers for Stress Level Analysis of Automotive Drivers using Physiological Signals, An international Journal of Biomedical Signal Processing & Control, 8, 740-754, Elsevier B V, USA
6. Rahul Banerjee, Prasanta Bhattacharya, Hajela Ruchir, Project Communicate, Universal Access in Human-Computer, International Journal of Lecture Notes in Computer Science 80, 10, 494-503 Springer-Verlag, Germany

**C. CONFERENCES**

The faculty of the department published 13 papers in international/national Conferences during the year.

**(i) Conferences attended/papers presented outside India:**

1. Murali Parameswaran, C. Hota, Arbitration-based Reliable Distributed Mutual Exclusion for Mobile Ad-hoc Networks, Modeling and Optimization in Mobile, 11th International Symposium and Workshops on Ad Hoc and Wireless Networks (WiOpt), 2013, 380-387, May 13-17, 2013, Tsukuba.
2. Murali Parameswaran, V. Rastogi and C. Hota, A Virtual-Force Based Multicast Routing Algorithm for Mobile Ad-hoc Networks, The Fifth International Conference on Ubiquitous and



Future Networks 2013 (ICUFN), 696-700, July 2-5, 2013, Da Nang.

3. K. Manjusha, Shabas, S; Banerjee, Rahul, An Efficient Method of Spam Classification by Multi-class Support Vector Machine Classifier Interaction. User and Context Diversity, Proceedings of the Seventh International Conference on Data Mining and Warehousing, August 9-11, 2013, ICDMW, Bengaluru, India.
4. Sundaresan Raman, Pecot Thierry, Singh Shantanu, Caserta Enrico, Leone Gustavo, Huang Kun and Machiraju Raghu, Robust Reconstruction of Tubular Structures in Tissue Microenvironment, Pattern Recognition and Image Analysis, September 23-28, 2013, 709, Russian Academy of Sciences, RAS, Samarskiy Samara, Russia.
5. Mayuri A. Digalwar, Sudeept Mohan and Biju Raveendran, Dynamic Voltage and Frequency Scaling Algorithm for Mixed Task Set, 8th IEEE International Conference on Industrial and Information Systems 2013 (ICIIS 2013), December 17-20, 2013, Department of Electrical and Electronic Engineering, University of Peradeniya, Sri Lanka, Faculty of Engineering, Kandy, Sri Lanka.
6. Yashvardhan Sharma, Building a Data Warehousing Infrastructure based on Service Oriented Architecture, First International Conference on Cloud Computing Technologies, Applications and Management, December 8-12, 2013, 82-87, IEEE, BITS-Pilani, Dubai Campus, BITS-Pilani, Dubai Campus, Dubai UAE.

**(ii) Conferences attended/papers presented in India:**

1. Nirmal Kumar Gupta and Mukesh Kumar Rohil, Improving GA based Automated Test Data Generation Technique for Object Oriented Software, Third IEEE International Advance Computing Conference (IACC-2013), Feb. 22-23, 2013, Ajay Kumar Garg Engineering College, Ghaziabad.
2. Sunil Thalia and Asma Tuteja, Comparative performance analysis of information system security using crisp and fuzzy AHP methods, Third Advanced Computing Conference (IACC - 2013), February 22-23, 2013, Ajay Kumar Garg Engineering College, Ghaziabad.
3. Vandana Agarwal and Surekha Bhanot, Firefly Inspired Center Initialization of Radial Basis Function Neural Network for Face Recognition, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, July 14, Indian Institute of Technology (IIT), Kanpur.
4. Avinash Gautam, Sudeept Mohan, Virender Shekhawat, A Token Passing Approach for Circle Formation by Multiple Mobile Robots, Sixth International Conference on Contemporary Computing (IC3), August 08-10, 2013, IIIT Noida, Noida.
5. Mayuri A. Digalwar, Sudeept Mohan and Biju Raveendran, Energy Aware Real Time Scheduling Algorithm for Mixed Task Set, ICAES International Conference on Advanced Electronic Systems, September 21-23, 2013, CSIR-CEERI, Pilani (india).
6. Avinash Gautam, Sudeept Mohan, A Distributed Algorithm for Circle Formation By Multiple Mobile Robots, First International Conference on Control, Automation, Robotics and Embedded Systems (CARE), December 16-18, 2013, IIITDM Jabalpur, Jabalpur.
7. Vandana Agarwal and Surekha Bhanot, Evolutionary Design of Multiquadric Radial Basis Functions Neural Network for Face Recognition, Fourth National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG), December 19-21, 2013, Indian Institute of Technology(IIT), Jodhpur.

**D. BOOKS PUBLISHED/EDITED /CHAPTER WRITTEN DURING THE YEAR: NIL**

**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

1. Navneet Goyal, Poonam Goyal, S Balasubramanian, Bharat Deshpandey, International Workshop on Data Analytics & Applications ( IWDA 2013), 26th Feb - 1st March, Goa, Invited speakers Prof. Yi-Ping Phoebe Chen Latrobe University Aus, Prof. R.K. Shyamasundar TIFR, Dr. Prahlada Rao CDAC, Prof. Santanu Chaudhury IIT D.

**F. INVITED TALKS GIVEN BY BITS FACULTY**

1. Mukesh Kumar Rohil, Intelligent Image Processing for Some Problem Domains, A Three Day Refresher Course On "Modern Imaging Research: Research Avenues And Challenges", Jan 31-Feb 02, 2013, Aditya Institute of Technology and Management (AITAM), K. Kotturu, Tekkali, Srikakulam District, Andhra Pradesh AITAM, K. Kotturu, Tekkali, K. Kotturu, Tekkali India.
2. Poonam Goyal, Concept Based Information Retrieval, International Workshop on Data Analytics & Applications, 01 March 2013, BITS-Pilani, BITS-Pilani KK Birla Goa Campus, Goa, India.
3. Navneet Goyal, Health Informatics & analytics: Challenges & Opportunities, Workshop on Biomedical Engineering & Medical Informatics, 13th April, LNMIIT Jaipur, India
4. Navneet Goyal, Predictive Modelling for Multivariate Time-series Data, 3rd South Asia Workshop on Research Frontiers in Computing, 29th May, 2013, School of Computing, NUS, Singapore.
5. Rahul Banerjee, *A Scalable Ubiquitous Computing Environment for the Elderly*, Ubiquitous Computing: UC-2013, July 13, C-DAC, JNTU Auditorium, Hyderabad, INDIA, Keynote Lecture
6. Navneet Goyal, High Performance Computing Solutions for Data Mining, Workshop on Challenges in BIG Data Research, 10th November, 2013, MNIT Jaipur India, [http://mnit.ac.in/new/cms/uploads/2013/10/Big\\_Data\\_Flyer.pdf](http://mnit.ac.in/new/cms/uploads/2013/10/Big_Data_Flyer.pdf)

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT**

1. Dutta Kaushik, Estimating the Energy Consumption of Executing Software Processes, Associate Professor, National University of Singapore, Singapore, Singapore September 12, 2013
2. Gadia Shashi K, A workbench based approach for repeatable experiments in software, Professor, Iowa State University, US Ames, Iowa, November 27, 2013.
3. Upadhyaya Shambhu, Insider Threat – Analysis and Countermeasures Professor, University of Buffalo @ SUNY Buffalo, NY, US December 16, 2013.

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. Vandana Agarwal, Best Presentation of Paper, Best Presentation IIT Kanpur, INDIA, July 14, 2013, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions Kanpur India.

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION**

1. Mukesh Kumar Rohil Attended tenth Microsoft TechEd, India 2013, held during March 18-19, 2013 organized and hosted by Microsoft India Private Limited, Bangalore, India.

**J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR**

S.No.	Software/Equipment	No. of Licenses or Quantity
1	Mathematica	30 Licenses
2	Netsim	110 Licenses
3	Sony Media SoundForge & OMNI Pro	5 Licenses
4	Intel Cluster Studio	5 Research Licenses + 50 Student Licenses
5	IBM COGNOS	25 Licenses

<b>S.No.</b>	<b>Software/Equipment</b>	<b>No. of Licenses or Quantity</b>
6	Vmware Vcenter Server Foundation	1 License
7	Vmware Vsphere Storage Appliance	1 License
8	VCloude Suite Enterprise	1 License
9	Vampir Standard	1 License
10	Programmer Ed. LPA Win Prolog	2 License
11	IBM Server Xeon E-3-1220V2	1
12	EMC Vnxe 3150/Dual Controller	1
13	XE250M4 Special Build Server	16
14	EA 15 KVA Online UPS (3Phase)	2
15	Sony Vio Duos Laptop	1
16	iPad with Retina display	1
17	Dell 24" Monitor with LED	2
18	Dell Keyboard & Mouse 2 + 2	4
19	Dell Keyboard & Mouse 2 + 2	4
20	Dell 21" Monitor with LED	2
21	Dell Intel Core i5 3470 3.20 GHz	2
22	Dell Intel Core i5 3470 3.20 GHz	3
23	Dell 24" Monitor with LED	5
24	Dell Keyboard & Mouse 3+3	3
23	HP LaserJet Printer 1536 DNF	1
25	KVM Switch 16 Port	2
26	CISCO SWITCH WS-C2960	2
27	CISCO SWITCH WS-C2961	3
28	Bumblebee Dev Kit	1
29	Online Imaging Kit	1
30	Logitech Wireless Headset	25
31	42 U Rack	3
32	WSN Nodes running Tiny OS along with required connectors, software	60

**K. DEPARTMENTAL ASSOCIATIONS ACTIVITIES****K.1 List of events organized by the Computer Science Association:**

Month	Name of the Event	Date	Venue
January	CSA APOGEE' 13 Project Meet	11th	LTC 5102
	Alumni Research Talks	12th -14th	LTC
March	Qrious	6th	Hosted Online
	Coder	9th	Hosted Online
	Code Storm	15th	IPC
	Hackathon	16th-17th	LTC QT
	Smash the bug	17th	IPC
	Mindsweeper	18th	IPC
	I Strike	18th	FD2
	T-Shirt signings	22nd	Bhawan Messes
April	Game Development Workshop	6th	LTC 5105
August	Orientation about CSA	10th	LTC 5102
	Recruitments- first years and second years	20th	Sky Lawns
	Mindturner	26th	LTC 5102
	CSA APOGEE'14 Project Meet-1	27th	LTC 5102
September	2013 Award for excellence in CS	3rd	LTC 5103
	CSA APOGEE'14 Project Meet-1	7th	LTC 5102
	Google Developers Group, DevFest'13	20th-22nd	LTC 5102
	Competitive Programming SIG Session-1	23rd	LTC 5101
	Competitive Programming SIG Session-2	24th	LTC 5101
October	Competitive Programming SIG Session-3	5th	FD2 2201
	CSA Doodle Contest	18th-22nd	Online
	CSA Project submission and pitching	16th-20th	

**K.2 List of events organized by the Information Systems Association:**

Month	Name of the event	Date	venue
January	ISA APOGEE' 13 Project Meet	14th	FD II-2206
March	Qrious	6th	Hosted Online
	Coder	9th	Hosted Online
	3 D treasure Hunt	10th	IPC
	Hackathon	16th-17th	LTC QT
	Smash the bug	17th	IPC
	Mindsweeper	18th	IPC
	Capture The Flag	19th	IPC

Month	Name of the event	Date	venue
August	Algotron Event	25th	IPC
	Recruitments- first years and second years	29th	SAC
September	ISA APOGEE'14 Project Meet-1	7th	LTC 5105
October	ISA APOGEE'14 Project Meet-2	8th	LTC 5105
	ISA Project submission	16th-17th	

#### **B1.10.6 Department: Economics and Finance**

Number of faculty members (as on 31 December 2013)

<b>Professors</b>	03
<b>Associate Professor</b>	01
<b>Assistant Professor</b>	03
<b>Visiting Faculty and Lecturer</b>	02

**Head of the Department: Dr. Arvind Sudarsan**

**Contact details:** [arvinds13@pilani.bits-pilani.ac.in](mailto:arvinds13@pilani.bits-pilani.ac.in)

**Number of PhD Scholars: 09**

#### **A. PUBLICATIONS**

The faculty of the department published the following papers in international/national refereed journals during the year.

1. Madhu Sehrawat and A K Giri, "Inflation and Financial Sector Development: Evidences from Indian Economy", International Journal of Multidisciplinary Research, Vol.2, No.3, 2013, pp.118-121.
2. Pooja Joshi and A K Giri, "Causal Relationship between Stock market Indices and macroeconomic Variables: Empirical Evidences from India", International Journal of Multidisciplinary Research, Vol.2, No.3, 2013, pp.114-117.
3. Madhu Sehrawat and A K Giri, "Inflation in India: Empirical Analysis using VAR Approach", International Academic Research Journal of Economic and Finance, Vol.2, Issue 1, 2013, pp.1 -8.
4. Pooja Joshi and A K Giri, "An Empirical Analysis of the Relationship Between Stock Market Indices And Macroeconomic Variables: Evidences from India", International Academic Research Journal of Economic and Finance, Vol.2, Issue 1, 2013, pp. 17-24.
5. Arya Kumar and Akhilesh Tripathi, Operational Risks – Mapping, Assessment and Measurement Issues, Bank Quest, The Journal of Indian Institute of Banking & Finance, Vol. 84, No. 3 July – Sept 2013, pp. 28-36.
6. Arya Kumar & Akhilesh Tripathi, Treasury Operations in Indian Banks – Challenges in Operational Risk Management, The Indian Banker, Journal Published by Indian bank's Association Vol VIII No. 5 May 2013, pp 22-31.
7. Arya Kumar and Akhilesh Tripathi, Operational Risk Management in Treasury Operations in Banks – Issues and Concerns, Business Markets Plus, Vol 2 No 1 June 2013.
8. Sudarsan, A. (2013). Introducing the Materials Management Department. Vishwakarma Business Review, Vol. 3, No. 2. pp. 93 – 95.

9. Sudarsan, A. (2013). Reorganization at the National Experimental Research Institute, Bizarreland: A Case Study. *Pragyaan Journal of Management*, Vol. 11, No. 1. pp. 23 – 25.
10. Sudarsan, A. (2013). The Decentralized Middle Manager. *Yadavrao Tasgoankar International Journal of Management, Technology and Engineering (SES Research Journal)*, Vol. 3, No. 1. pp. 26 – 38.
11. Sudarsan, A. (2013). The Irate Customer. *Indira Management Review*, Vol. 7, No. 2. pp. 53 – 64.
12. Sudarsan, A. and Mahesh, J. (2013). Case Analysis: Turnaround at TASS. *Indira Management Review*, Vol. 7, No. 2. pp. 49 – 52.
13. Sudarsan, A. (2013). Employee Career Progression at SCTL. *JIM QUEST Journal of Management and Technology*, Vol. 9, No. 1 pp. 96 – 98.
14. Sudarsan, A. (2013). A Brief Case History of LaZaCo. *Kushagra International Management Review*, Vol. 3, No. 1 pp. 133 – 136.
15. Sudarsan, A., Raghunathan R. and Mahesh, J. (2013). Seth Project Consultants Ltd: Striving for Growth. *Indira Management Review*, Vol. 7, No. 1. pp. 70 – 83.
16. Sudarsan, A. (2013). Industrial Accident At Seth Chemicals & Textiles Ltd. *PRATIBIMBA - The Journal of IMIS*, Vol. 13, No. 1. pp 75 – 77.

## **B. CONFERENCES**

The faculty of the department published the following papers in international/national Conferences during the year.

1. Madhu Sehrawat and A K Giri, "Measuring Core Inflation: An Empirical Evaluation of Alternative Methods", paper presented in 2nd Biennial Conference of the Association of Indian Economics and Financial Studies (AIEFS) held at IGIDR Mumbai during 2-3 August, 2013.
2. Madhu Sehrawat and A K Giri, "Does Financial Development leads to Poverty reduction in India? An Empirical Investigation", paper presented at 50th Annual Golden Jubilee Conference of the Indian Econometric Society (TIES) held at IGIDR Mumbai during 22-23 December, 2013.
3. Arya Kumar, Need and importance of Market Research for Medium Small and Micro Start-ups, International Tenth Biennial Conference on Entrepreneurship, 20-22nd Feb 2013, Entrepreneurship Development Institute of India, Ahmedabad.
4. Mohit Alimchandani, Arya Kumar and Anil Bhat, Highlighting Issues & Critical Challenges for Power Sector of India, Eleventh AIMS International Conference on Management, December 21-24, 2013, IMT Ghaziabad.
5. Mohit Alimchandani, Arya Kumar and Anil Bhat, Effectiveness of Employees in Public Sector Units of India, Eleventh AIMS International Conference on Management, December 21-24, 2013, IMT Ghaziabad.
6. Arya Kumar and Onkar Bagaria, Engineering Education in India: Issues and Challenges, Eleventh AIMS International Conference on Management, December 21-24, 2013, IMT Ghaziabad.
7. Anmol Gupta and Arya Kumar, Estimation of Trade Balance of Indian Economy in Post Liberalisation Period and Policy Implications, in 50th Annual Golden Jubilee Conference of Indian Econometric Society held at Indira Gandhi Institute of Development Studies, 22-24th Dec 2013, Mumbai.

## **C. BOOKS PUBLISHED / WRITTEN DURING THE YEAR:**

None

## **D. BOOK CHAPTERS PUBLISHED / WRITTEN DURING THE YEAR:**

1. Pooja Joshi and A K Giri, "Sensitivity of Stock Market Indices to Oil price, Exchange Rate and Economic Growth: Evidence from Industrial Sub-sectors in India", in *Econometric Applications in Management* ed. By R C Sharma and Sanjay Kumar Garg, pp.207-229, National Publishing House, Jaipur, 2013
2. Arya Kumar, "Managerial Challenges in 21st Century - Insights from Geeta" in *Spiritualism in Education* ed. by Dr Shalini Gupta, Desh Bhagat University, Gobindgarh.

**E. INVITED TALKS GIVEN BY BITS FACULTY**

1. Prof Arya Kumar conducted a workshop on Entrepreneurship teaching for the benefit of around 50 faculty members across different institutions in Gujrat organized by Pearson in Indus University Ahmedabad on 25th January 2013.
2. Prof Arya Kumar delivered a key note talk in the technical session on "Innovation in Public Policy and Economic Development" in a two-day National Conference on 9th & 10th February 2013 on "Management Strategies and Innovation" organized by St. Xavier College, Jaipur.
3. Prof Arya Kumar delivered key note address in the inaugural session on "Intellectual Property Rights Backed Research & Development Investment – Key to Development" in a National Workshop on IPR and Technology Commercialisation organized by Guru Jambheshwar University of Science and Technology, Hissar on 18th March 2013.
4. Prof Arya Kumar conducted one day workshop jointly organized by J K Lakshmi Pat University and NEN of Wadhvani Foundation, for the benefit of around 100 students and few Faculty Member from different institutions in Jaipur on 18th August 2013.
5. Prof Arya Kumar delivered the Key Note talk on the paper titled "Managerial Challenges in 21st Century - Insights from Geeta" in the 7th International seminar on Spiritualism in Education organized by Desh Bhagat University Gobindgarh between 27th and 28th Sept 2013.
6. Prof Arya Kumar delivered an Invited talk on Business Plan Preparation and Business Model in the workshop organized by VIT Jaipur in association with NEN between 10th and 11th Nov. 2013 at Raipur.

**F. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

None

**G. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES**

Economics and Finance Department took various steps during the year to strengthen the course curriculum and teaching pedagogy of various courses offered by the department. The main emphasis continued to be on development of analytical skills, intellectual capability, and problem solving ability by fostering interdisciplinary approach to the degree programs offered.

Department faculty actively participated in teaching off-campus courses like Project management, Financial Management and Project Appraisal. Seminars were organized during the semester wherein faculty members and research scholars shared their research findings and developments with regard to their research work. Faculty members of the department had been actively involved in their research pursuit by guiding and acting as Doctoral Advisory Committee members for more than 10 candidates pursuing their PhD on campus and off-campus programme.

The students gained practical experience in studying and analyzing various aspects of the subject in areas such as financial analysis, business valuation, microfinance issues, monetary policy issues, environmental economics issues, Indian economic development, econometric modeling and quantitative applications of economics and Finance through project work undertaken as part of various courses, as study oriented projects, computer projects and special projects undertaken directly under the supervision of faculty members. More than 50 projects in the above mentioned area were individually supervised by the group faculty members during 2013.

A team of 4 students represented BITS Pilani in the Economics fest, St. Stephens College, Delhi in January. The team stood 4th in the prestigious competition of case study among 50 other colleges all over India.

In February a report on RBI Financial Literacy program was prepared wherein association members visited nearby villages to educate people about ATM, bank deposits, interest rates, etc. In March, the team coordinated with other associations in hosting Science week.

EFA had two events during APOGEE 2013: SMS, and BITSIAN CEO. Stock Market Simulation, popularly known as SMS was designed on the concept of live trading floor. The event recorded 500+ participation from different colleges of the country and was the kernel event of the technical festival. It was in association with DSJ and was sponsored by IDBI bank. BITSIAN CEO had a quiz and a case study round and was sponsored by TCS. A decent number of projects were displayed in the finals of Project Competition of Apogee. Out of 50 abstracts submitted, 14 made the final cut.

Economics and Finance Association started the new semester in August with interaction with the new batch of first year Economics and Finance students in first week. In September, 'Mock Stock' -a virtual Stock Market trading competition was organised in association with Futures First. The event was organised in two rounds. A total of 38 teams were selected for the next round. This event was sponsored by Futures First.

An online talk was conducted by EFA in association with Embryo where Vinit Sinha, a top Research Analyst at Credit Suisse, delivered lecture on "Indian Rupee" and RBI's persistent battle against its depreciation, in November.

Planning and preparing for Apogee 2014, a project meet was held in November and students from the first and second year got an overall idea about the abstracts submission for paper presentation and projects under the category Economic Modeling and Finance.

### **B1.10.7 Department: Electrical, Electronics & Instrumentation**

Number of faculty members (as on 31 December 2013)

<b>Senior Professors, Professors</b>	06
<b>Associate Professors</b>	03
<b>Assistant Professors</b>	09
<b>Lecturers</b>	18

**Head of the Department:** Dr. Anu Gupta

**Contact details:** anug@pilani.bits-pilani.ac.in

**Number of full time PhD Scholars:** 13

#### **A. SPONSORED RESEARCH/ DEVELOPMENT ACTIVITIES:**

EEE department received grant support of Rs 138 L under FIST program Level-1 category by the Department of Science and Technology to strengthen the research facilities in the department

Dr. Rajneesh Kumar (PI) ---Design development and implementation of a building integrated photovoltaic system for rural application, phase-I, 43.29 L sanctioned, State Innovation Council, Rajasthan

#### **B. PUBLICATIONS:**

The faculty of the department published 24 papers in international/national refereed journals during the year.

1. Prachi Sharma and Navneet Gupta, "Threshold Voltage Modeling on Nanocrystalline Silicon Thin-Film Transistors", *J. Electron Dev.*, 1608-1612, vol. 19, (2014).
2. Ashish K. Sharma and Navneet Gupta, "Electromagnetic Modeling and Parameter Extraction of RF-MEMS Switch" *Microsystem Technologies*: Springer-Verlag Berlin. (Nov-2013). DOI:10.1007/s00542-013-1952-3 (SCI indexed).
3. Ashish K. Sharma and Navneet Gupta, "Investigation of Actuation Voltage for Non-Uniform Serpentine Flexure Design of RF-MEMS Switch", *Microsystem Technologies*: Springer-Verlag Berlin, (Oct-2013). DOI: 10.1007/s00542-013-1930-9. (SCI indexed).
4. Ashish K. Sharma and Navneet Gupta, "Analytical Modeling for Spring Constant of Non-Uniform Serpentine Radio Frequency-Micro Electro Mechanical System Switch" *Advanced Science, Engineering and Medicine*, American Scientific Publishers, 5 (12), 1322-1325, (2013).
5. J. Kumar and Navneet Gupta, "Performance Analysis of Dielectric Resonator Antennas" *Wireless Personal Communication-an international journal*, Springer, Oct. 2013. DOI: 10.1007/s11277-013-1406-3 (SCI indexed).



6. A.K.Sharma and Navneet Gupta," Microelectro-mechanical System (MEMS) Switches for Radio Frequency Applications-A Review", Sensors and Transducers, 11-21, vol. 148, 2013.
7. Bharat Kumar Potipireddi and Abhijit Asati, "Automated HDL Generation of Two's Complement Wallace Multiplier with Parallel Prefix Adders," International Journal of Electronics and Communication Engineering & Technology (IJECET), Volume 4, Issue 3, May – June (2013). ISSN 0976 – 6464(Print), ISSN 0976 – 6472(Online).
8. Bharat Kumar Potipireddi and Abhijit Asati, "Automated HDL Generation of Two's Complement Dadda Multiplier with Parallel Prefix Adders," International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE), Vol. 2, Issue 6, June 2013. ISSN 2320 - 3765 (Print), ISSN 2278 – 8875 (Online).
9. Rikmantra Basu, B. Mukhopadhyay and P. K. Basu, "Analytical Model for Threshold Base Current of a Transistor Laser with Multiple Quantum Wells in the Base", IET – Optoelectronics Journal, vol. 7, no. 3, pp. 71-76, 2013.
10. Rikmantra Basu, Vedatrayee Chakraborty, B. Mukhopadhyay and P. K. Basu, "Predicted Performance of Ge/GeSn Hetero- Phototransistors on Si Substrate at 1.55  $\mu\text{m}$ ", Optical and Quantum Electronics Journal, 2013 (Provisionally Accepted).
11. Parikshit K. Singh, Surekha Bhanot, Harekrishna Mohanta, Neural Control of Neutralization Process using Fuzzy Inference System based Lookup Table, International Journal of Computer Applications, Volume no. 61 Issue no. 9 pp 16-22, January 2013, Foundation of Computer Science, New York, USA.
12. Parikshit K. Singh, Surekha Bhanot, Harekrishna Mohanta, International Journal of Intelligent Systems and Applications Optimized and Self-Organized Fuzzy Logic Controller for pH Neutralization Process, Volume no. 5, Issue no.12, pp 99-112, November 2013 ,Modern Education and Computer Science Press, Hong Kong.
13. Priya Gupta, Anu Gupta and Abhijit Asati "A Review on Ultra Low Power Design Technique: Sub-threshold Logic " International Journal of Computer Science and Technology-IJCST, Vol.4, Issue Spl-2, April-June 2013, ISSN: 0976-8491 (Online) ISSN : 2229-4333 (Print).
14. Vinita Tiwari, Debabrata Sikdar, M. Navya Jyothi, Gauri Dixit, V.K.Chaubey" Investigation of optimum pulse shape for 112 Gbps DP-DQPSK in DWDM transmission" Optik - Int. J. Light Electron Opt.( Elsevier ) 2013, Vol. 124, Issue 22, November 2013, Pages 5567–5572, Impact Factor of the journal: 0.519.
15. Vinita Tiwari, Debabrata Sikdar, V K Chaubey "Performance Optimization of RZ-DQPSK Modulation Scheme for Dispersion Compensated Optical Link" Optik - Int. J. Light Electron Opt (Elsevier), vol. 124, Issue 17, September 2013, Pages 2593–2596, Impact Factor of the journal: 0.519.
16. Debabrata Sikdar., Vinita Tiwari, Yajnaseni Saha, V.K. Chaubey ( 2013) "Investigation of modulator chirp and extinction ratio in different RZ- and NRZ duobinary transmitter modules for performance optimization" Optik ( Elsevier ), 124 pp. 1411-1414.
17. Debabrata Sikdar, Vinita Tiwari, V K Chaubey ( 2013) "Investigation of RZ and NRZ pulse shape for optimum Duo binary transmission at 40Gbps" Optik (Elsevier) 124 pp. 1148-1151.
18. Rajiv Ranjan Singh, Sailesh Conjeti and Rahul Banerjee, "Assessment of Driver Stress from Physiological Signals collected under Real - Time Semi - Urban Driving Scenarios". International Journal of Computational Intelligence Systems. Online version published on 12 Nov 2013. DOI: 10.1080/18756891.2013.864478. (Co-published by Taylor & Francis and Atlantis Press).
19. Rajiv Ranjan Singh, Sailesh Conjeti and Rahul Banerjee," A comparative evaluation of neural network classifiers for stress level analysis of automotive drivers using physiological signals". Biomedical Signal Processing and Control, vol. 8, no. 6, pp. 740-754, November 2013. (Elsevier).
20. J S Soni, H P Agrawal, R Gupta and H O Bansal (2013), "Potentials and Capabilities of FACTS Controllers for Quality and Performance Enhancement of Power System", International Journal of Innovative Technology and Exploring Engineering, Vol.2, No. 4, March 2013, ISSN: 2278-3075 .

21. Nitin Chaturvedi, S Gurunarayanan "Study of Various Factors Affecting performance of Multi-core architectures" in International Journal of Distributed and Parallel Systems (IJCS), Volume 1, No 2, September 2013.
22. Sneha Lata Murotiya and Anu Gupta (2013), "Design of CNTFET based 2-bit ternary ALU for nano-electronics, International Journal of Electronics, Taylor & Francis, DOI: 10.1080/00207217.2013.828.
23. Sneha Lata Murotiya and Anu Gupta (2013), "Design of CNTFET-based Radiation hardened Latches" will be published in European Journal of Scientific Research, Volume 117 Issue 1.
24. Mohammed Aquil Mirza, Muhammad Zeeshan Shakir, Mohamed Slim-Alouini, "A scalable global positioning system-free localization scheme for underwater wireless sensor networks", EURASIP Journal on Wireless Communications and Networking, 2013. Source: <http://link.springer.com/article/10.1186%2F1687-1499-2013-122>.

### C. CONFERENCES:

The faculty of the department published 64 papers in international/national Conferences during the year.

#### (i) Conferences attended/papers presented outside India:

1. L.B.F. Leite, H. Siguerdidjane, H.D. Mathur and Y.K. Bhatshvar, "Wind Power Inertial Support for Inter-area Oscillations Suppression with Fuzzy Controller in Varying Load Conditions" In the proceedings of IEEE International Conference on Clean Electrical Power, Alghero, Italy, June 11-13, 2013.
2. H.D. Mathur, L.B.F. Leite, H. Siguerdidjane and Y.K. Bhatshvar, "Study of Impact of Wind Power Penetration on Frequency Stabilization in Multi-area Power System" In the Proceedings of IEEE International Symposium on Advanced Topics in Electrical Engineering, Bucharest, Romania, May 23-25, 2013.
3. Bhawani Shankar, Sanjeev K. Gupta, William R. Taube, Jitendra Singh, Abhijit Asati and J. Akhtar "Breakdown Voltage Enhancement in 4H-SiC Schottky Diode Employing Field Plate Edge Termination using High-k Dielectrics," International Conference on Silicon Carbide and Related Materials 2013 (ICSCRM 2013), Miyazaki, Japan, 2nd October 2013. (Accepted).
4. Ajinkya Rajandekar, Rahul Singhal, Voltage-Controlled All-Polymer Reconfigurable Optical Power Splitter, Fourth IEEE International Conference on Photonics (IICP 2013), October 28-30, 2013, Melaka, Malaysia.
5. Ishit Makwana, Shruti Mittal, Nitin Chaturvedi and Nidhi Chaturvedi "Optimization of AlGaN/GaN HEMT based PH sensor for breast cancer detection", 37th workshop on compound semiconductor devices and Integrated circuits, 26-29th May. 2013, pp 85-86 Warnemuende, Germany.
6. Mahesh Angira, G.M. Sundram, Kamaljit Rangra, Deepak Bansal, Maninder Kaur, On the investigation of an interdigitated, high capacitance ratio shunt RF-MEMS switch for X- band applications, , Techconnect, May 12-16, 2013, Washington D.C, U.S.A.
7. Mahesh Angira, G.M. Sundaram, Kamaljit Rangra, A Novel Interdigitated, Inductively Tuned, Capacitive Shunt RF – MEMS Switch for X and K Bands Applications, , 9<sup>th</sup> IEEE- NEMS April 13-16, 2014, Hawaii, USA (Accepted).
8. Rivo S. A. Randriatsiferana, Frederic Alicalapa, Richard Lorion and Mohammed Aquil Mirza, "A clustering algorithm based on energy variance and coverage density in centralized hierarchical Wireless Sensor Networks", ACM SIGCOMM, HongKong, August 09-12, 2013.

#### (ii) Conferences attended/papers presented in India:

1. Kartic Bhargav K R, Rahul Singhal, Zigbee based VANETS for Accident Rescue Missions in 3G WCDMA Networks, IEEE Global Humanitarian Technology Conference (GHTC) South Asian Satellite (SAS) Conference 2013, 23-24 August, 2013, Trivandrum, India.
2. Kartic Bhargav K R, Rahul Singhal, Emergency Response Systems for Vehicular search and rescue in 3G WCDMA Networks, Tenth IEEE International Conference on Wireless and Optical Communications Networks (WOCN 2013), July 26-28, 2013, Bhopal, Madhya Pradesh.

3. Shreesh Bahuguna, Rahul Singhal. Hexagonal Flower Fractal Multiband Antenna, IEEE Indian Antenna Week (IAW 2013), June 3-7, 2013, Aurangabad, Maharashtra.
4. Shreesh Bahuguna, Rahul Singhal. Hexagonal Array Fractal Microstrip Antenna, IEEE Indian Antenna Week, (IAW 2013), June 3-7, 2013, Aurangabad, Maharashtra.
5. Ashish Mishra, Nidhi Jayapalan, Harsha Rastogi, Tushar Agrawal, "Impact of Segmentation Distribution on Area and Delay in FPGA Routing Architectures" 3<sup>rd</sup> International Advance Computing Conference, Feb-22-23, 2013.
6. Ashish Mishra, Hardik Mahasukh Shah, Lucky Sharan, Kota Solomon Raju, "VHDL Implementation of FFT Algorithm Using Vedic Multiplier" Proceeding of Mobile and Embedded Technology International Conference (MECON), Jan-17-18-2013.
7. Sachin Maheshwari, Himadri Singh Raghav and Dr. Anu Gupta, "Characterization of Logical Effort for Improved Delay" VLSI Design and Test, Communications in Computer and Information Science, Vol. 382, pp. 108–117, 2013. (© Springer-Verlag Berlin Heidelberg 2013).
8. Sachin Maheshwari, Rameez Raza, Pramod Kumar and Dr. Anu Gupta, "Convex Optimization of Energy and Delay using Logical Effort Method in Deep Sub-Micron Technology" VLSI Design and Test, Communications in Computer and Information Science, Vol. 382, pp. 185–193, 2013. (© Springer-Verlag Berlin Heidelberg 2013).
9. Sneha Lata Murotiya, Anu Gupta, "CNTFET Based Design of Content Addressable Memory Cells", 4th IEEE ICCCT – 2013, MNNIT Allahabad, pp.1-4, Sep.20-22, 2013.
10. Sneha Lata Murotiya, Anu Gupta, "Performance Evaluation of CNTFET based Dynamic Dual Edge Triggered Register", 1<sup>st</sup> IEEE ICAES – 2013, CEERI Pilani, pp. 180-183, Sep. 21-23, 2013.
11. Sneha Lata Murotiya, Anu Gupta, "DESIGN AND ANALYSIS OF CNTFET BASED D FLIP-FLOP", presented in ICCS – 2013, BKBIET Pilani and published in IJECET, vol.4, issue 7 pp. 144-149, 2013.
12. Sneha Lata Murotiya, Anu Gupta, "Performance Evaluation of CNTFET based DTCAM cell", IEEE Conference INDICON – 2013, IIT Mumbai.
13. Priya Gupta, Akshay Kumar Sharma, Pratishtha Dehadray, Anu Gupta "Design and Implementation of low power TG Full Adder design in subthreshold regime" IEEE International Conference on Intelligent Interactive Systems and Assistive Technologies, August 2-3, 2013, Coimbatore, India.
14. Priya Gupta, Ishan Munje, Nikhil Kaswan, Anu Gupta, Abhijit Asati "Analysis & Implementation of Ultra Low-Power 4-bit CLA in subthreshold regime" Selected to be published on IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT), March 20<sup>th</sup>-21<sup>st</sup> 2014, Tamilnadu.
15. Abhilash K N, Shakthi Bose, Anu Gupta, "Abhilash K N, Shakthi Bose, Anu Gupta, "A High Gain, High CMRR Two-Stage Fully Differential Amplifier Using gm/Id technique for Bio-medical Applications", IEEE PrimeAsia 2013 Conference held at GITAM University, Visakhapatnam Campus, 19 -21 December 2013.
16. Siddharth Malhotra, Abhinav Mishra, Rakesh B R, Anu Gupta, "Frequency Compensation in Two-Stage Operational Amplifiers for Achieving High 3-dB Bandwidth" IEEE PrimeAsia 2013 Conference held at GITAM University, Visakhapatnam Campus, 19th -21st December 2013.
17. Ganesh Raj, Ankur Gupta, Dr. Anu Gupta, " Self timed High speed 8-bit SAR ADC in 0.35um", IEEE Conference INDICON – 2013, IIT Mumbai.
18. Ashish Mishra, A. R. Asati and Kota Solomon Raju, "Scheduling of Dataflow Graphs on Partial Reconfigurable Hardware in Xilinx PR Flow," International Conference on Advanced Electronic Systems (ICAES-2013), CEERI, Pilani, India. 21-23, September 2013.
19. Abhishek Mukherjee and Abhijit Asati, "Generic Modified Baugh Wooley Multiplier," International Conference on Circuits, Power and Computing Technologies (ICCPCT- 2013), Kumaracoil (Tamilnadu), INDIA, 21-22 March 2013.

20. Rikmantra Basu, Vedatrayee Chakraborty, B. Mukhopadhyay and P. K. Basu, "Performance Analysis of Ge/GeSn Hetero- Phototransistors", International Conference on Microwave and Photonics (ICMAP), ISM Dhanbad, December 15 -17, 2013.
21. Vandana Agarwal and Surekha Bhanot, "Firefly Inspired Center Initialization of Radial Basis Function Neural Network for Face Recognition", IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, India, pp. 9-15, July 2013.
22. Parikshit K. Singh, Surekha Bhanot, Harekrishna Mohanta, Optimized Adaptive Neuro-Fuzzy Inference System for pH Control, International Conference on Advance Electronic Systems (ICAES 2013), Central Electronics Engineering Research Institute, Pilani, September 21-23, 2013.
23. Nikhil Kaswan , Ishan Munje, Yash Kothari , Priya Gupta, Anu Gupta "Implementation of high speed energy efficient 4-bit binary CLA based incrementer /decrementer" in 2013 International Conference on Advanced Electronic Systems (ICAES), Sept. 21-23 2013, CEERI Pilani.
24. Shriram H S, Anirban Jyoti Hati and Rajiv Ranjan Singh, "A Novel Processor Architecture for Sugeno-type Fuzzy Inference Systems". International Conference on Advanced Electronics Systems (ICAES 2013), CEERI Pilani, India, September 21-23, 2013. Proceedings will be available on IEEE Xplore.
25. Dheerendra Singh, A. Anand Kumar " DSP based IFO control of HEV Fed through Impedance Source Inverter" IEEE-INDIA COUNCIL (INDICON) -2013, Dec. 13-15, IIT Bombay.
26. Ashoka Kumar , Dheerendra Singh, "Comparative Study of 4H-SiC(1000) based High Power MOSFET with High-K gate Dielectric" IET Sponsored All India Seminar on Optimal use of Power Electronics in Modern Power System & Renewable energy, College of Technology and Engineering, MPUAT, Udaipur, 8-9 March, 2013.
27. Dheerendra Singh, A. Anand Kumar, "Implementation of Indirect Field Oriented Control for HEV through Impedance Source Inverter" IEEE sponsored 1st National Conference on Power Electronics Systems & Engineering, PESA, 16-17 March, 2013, NIT Rourkela, India.
28. Dheerendra Singh, A. Anand Kumar "A New Control Algorithm for Impedance (Z-Source) Inverter" Automation, Computing, Communication, Control and Compressed sensing (iMac4S), 2013, International Multi-Conference, on 22-23 March, 2013, Choondricherry, Palai, Kottayam district, Kerla, India.
29. Aishwarya Panday and Hari Om Bansal, "Green Transportation in India: Need Analysis and Solution" Accepted in IEEE International Conference on Control, Automation, Robotics and Embedded System, IIITDM, Jabalpur Dec 16-18, 2013.
30. Hari Om Bansal and Karan Gandhi, "Smart Metering in Electric Power Distribution System", Accepted in IEEE International Conference on Control, Automation, Robotics and Embedded System, IIITDM, Jabalpur, Dec 16-18, 2013.
31. Aishwarya Panday and Hari Om Bansal, "Temperature Dependent Circuit-based Modeling of High Power Li-ion Battery for Plug-in Hybrid Electrical Vehicles" International Conference on Advances in Technology and Engineering, Mumbai, January 23-25, 2013. Available online on IEEE Xplore.
32. Prachi Sharma and Navneet Gupta, "Nano-crystalline Silicon Thin Film Transistor (nc-Si:H TFTs)-A Device for Display Panels", Int. Conf. on Comm. Sys.(ICCS-2013), B K Birla Institute of Engineering & Technology, Pilani, 18-20 October, 2013.
33. Jitendra Kumar and Navneet Gupta, "Design of Omnidirectional Linearly Polarized Hemispherical DRA for Wideband Applications," Int. Conf. on Comm. Sys. (ICCS-2013), B K Birla Institute of Engineering & Technology, Pilani, 18-20 October, 2013.
34. Ashish K. Sharma and Navneet Gupta, "Electromagnetic Modeling of Non-Uniform serpentine flexure based RF-MEMS switch" IEEE International conference on Advance Electronic Systems (ICAES), CSIR-CEERI Pilani, India, sep 21-23, 2013.
35. A K. Sharma and Navneet Gupta, "Switching time-analysis for non-uniform serpentine flexure based RF-MEMS switched", IEEE 2<sup>nd</sup> Students Conference on Engineering and

- Systems, Motilal Nehru National Institute of Technology (MNNIT) Allahabad, India, April 12-13, 2013.
36. Ashish K. Sharma and Navneet Gupta, "Material Selection Approach for Dielectric Layer in RF-MEMS Switch", International Conference on Emerging Technologies - Micro to Nano; ETMN-2013, BITS, Pilani - KK Birla Goa Campus, India, February 23-24, 2013.
  37. Prachi Sharma and Navneet Gupta, "Model for Drain Current based on the Exponential Distribution of Tail States for Nanocrystalline Silicon Thin Film Transistor" 3<sup>rd</sup> IEEE International Advance Computing Conference (IACC-2013), AKGEC, Ghaziabad (UP), India, 22-23 February, 2013.
  38. Rashi Khatri, S Sheth, Navneet Gupta, "Modeling of Zinc Oxide (ZnO) based Thin-Film Transistors (TFTs)", 2<sup>nd</sup> Int. Symp. on Semiconductor Materials and Devices (ISSMD-2), Univ. of Jammu, January 31 to February 2, 2013.
  39. Abhishek Mukherjee, Prachi Sharma and Navneet Gupta, "Modeling of Field Effect Mobility using Grain Boundaries on Nanocrystalline Silicon Thin-Film Transistor (nc-Si TFT)" Second International Symposium on Semiconductor Materials and Devices (ISSMD-2), January 31 to February 2, 2013.
  40. S. Mohanty, K. K. Gupta, K. S. Raju, V. Mishra, V. Kumar, and P. B. Prasad, "Characterization of Wireless Accelerometer Sensor and Its Industrial Applications," National Conference on Communications, NCC 2014, IIT Kanpur, February 2014.
  41. J. C. Joshi and K. K. Gupta, "Biometric Access Control Using Improved Face Recognition Techniques," International Conference on Electronics, Communication and Information Technology (ICECIT 2013), Thapar, Patiala, October, 2013.
  42. S. Mohanty, K. K. Gupta, S. Snigdha, "Bearing Health Monitoring and Fault Diagnosis by Analyzing Vibration Signal," International Conference on Communication Systems (ICCS 2013), BKBIT, Pilani, October, 2013.
  43. V. M. Jithin and K. K. Gupta, "Robust Invisible QR Code Image Watermarking in DWT Domain," International Conference on Communication Systems (ICCS 2013), BKBIT, Pilani, October, 2013.
  44. Khyati Chopra and K. K. Gupta, "Hybrid LDPC and STBC Method to Improve BER Reduction in OFDM Systems," International Conference on Communication Systems (ICCS 2013), BKBIT, Pilani, October, 2013.
  45. S. Mohanty, K. Solomon Raju, K. K. Gupta, Arvind Singh, S. Snigdha, "Vibro Acoustic Signal Analysis in Fault Finding of Bearing Using Empirical Mode Decomposition," International IEEE Conference on Advanced Electronic Systems (ICAES-2013), CEERI, Pilani, September, 2013.
  46. Arvind Singh, S. Mohanty, K. K. Gupta, "Bearing Health Monitoring and Fault Diagnosis by Analyzing Acoustic Emissions Signal," National Conference on Power Electronics Systems & Applications (PESA 2013), NIT, Rourkela, March, 2013.
  47. Nitin Chaturvedi, S Gurunarayanan "An Adaptive Block Pinning Cache for Reducing Network Traffic in Multi-Core Architectures" 2013 IEEE International Conference on Computational Intelligence and Communication Network, ICCN-2013, Sept 27-29, 2013 (IEEE-Explore).
  48. Nitin Chaturvedi, S Gurunarayanan "An Adaptive Coherence Protocol with Adaptive Cache for Multi-core Architectures" International Conference on Advanced Electronic Systems, ICAES-2013, 21-23, September 2013, (IEEE Explore).
  49. Neha Arora, Rajneesh Kumar, et.al. "Morphological changes of carbon black during synthesis of carbon black", International conference on Emerging Technologies Micro to Nano, ETMN-2013, Goa, India, Feb 23-24, 2013.
  50. Dr. Rajneesh Kumar was Publication Chair at the International conference on Emerging Technologies Micro to Nano, ETMN-2013, Goa, India, Feb 23-24, 2013, organized jointly by BITS, Pilani and CEERI, Pilani.
  51. Vinita Tiwari, P Vignan, Rahul Vyas, V. K. Chaubey, "Investigation of Optimal Duty-Cycle for GVD Undercompensated Optical Link" presented in ICCS – 2013, BKBIET Pilani and published in IJECET, vol.4, issue 7 pp. 20-27, 2013.

52. G.M Sundaram, Mahesh Angira, Kamaljit Rangra, Voltage Controlled MEMS Tunable Resonator Design and Analysis, IEEE International Conference on Smart Structures & Systems, March 28-29, 2013. Chennai, India.
53. G.M. Sundaram, Mahesh Angira, Kamaljit Rangra, VHF MEMS Disk Resonator Design and Simulation, , RSPS, July 26-27. 2013, Vijaywada, India.
54. Mahesh Angira, G.M. Sundaram, Kamaljit Rangra, Design, Simulation and Analysis of a high Reliability Series Ohmic RF-MEMS Switch for Telecommunication Applications, , ICCCCM, August. 3- 4, 2013, Allahabad, India.
55. Vandana Agarwal and Surekha Bhanot, "Evolutionary Design of Multiquadric Radial Basis Functions Neural Network for Face Recognition", Fourth National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG), 19-21 December 2013 at IIT Jodhpur.
56. Jaskaran Singh Grover , Anu Gupta ,"Studying Crosstalk Trends for Signal Integrity on Interconnects using Finite Element Modeling", COMSOL Conference 2013 October 17 - 18, 2013, Bangalore.

#### **D. BOOKS PUBLISHED/EDITED /CHAPTER WRITTEN DURING THE YEAR:**

1. Rikmantra Basu, "TRANSISTOR LASERS WITH QUANTUM WELLS AND QUANTUM DOTS - IN -WELL IN THE BASE", (Pages: 251 – 281), Chapter 4 in Quantum Dots and Quantum Cellular Automata: Recent Trends and Applications, ISBN-13: 9781622579204, Hauppauge, New York: Nova Science Publisher's, Inc., 2013.
2. Ashish K. Sharma and Navneet Gupta, Book Chapter entitled, "MEMS Switches for RFApplications - A Review," Sensors and Biosensors, MEMS Technologies and its Applications, Second volume, published by Sensors & Transducers, Canada, 2013.
3. Leonard.S.Bobrow and Navneet Gupta, "Foundation of Electrical Engineering: Asian Edition" Oxford University Press, New Delhi, 2013.

#### **E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

- An international conference on Advanced Electronic Systems is being conducted by CSIR-CEERI & EEE department together on 21-23 September 2013. The conference was sponsored by IEEE Delhi Section.
- Dr. Dheerendra Singh conducted a Workshop on "Texas Instruments C2000 & MSP 430 Microcontroller" in collaboration with Texas Instruments India University Program & Cranes Software International Ltd. During 22<sup>nd</sup>-26<sup>th</sup> October.
- Dr. Hari Om Bansal, Dr. H D Mathur, Prof. Surekha Bhanot conducted a Workshop on "Control system design using MATLAB for NTPC Engineers" from Oct. 21-26, 2013.

#### **F. INVITED TALKS / CHAIRING SESSION BY EEE FACULTY:**

1. Prof. Dheerendra Singh was Invited as a keynote speaker and session chair in "All India Seminar on Optimal use of Power electronics in Modern Power system and Renewable energy" March 8-9 2013 held at MPUAT Udaipur.
2. Prof. Dheerendra Singh, Invited as an Expert and delivered lecture in AICTE sponsored faculty development programme by MPUAT Udaipur 20-22 June 2013.
3. Prof. Dheerendra Singh Invited as an keynote speaker and session chair in "International Conference on Advance research in Renewable Energy & Power System (ICARREPS-2013)" 7-8 Aug.2013, held at Marudhur Engineering College – Raisar, Bikaner, Rajasthan.
4. Prof. Dheerendra Singh delivered an Expert lecture on Automatic Generation & Optimal Control of Power System under changing scenario at BRCM College of Engineering & Technology, Bahal, Haryana,
5. Prof Hari Om Bansal gave invited talk on Restructured Power System and Distributed Generation at SN College of Engineering, Hissar on March 19, 2013
6. Dr. K K Gupta delivered Lecture on "Recent Trends in Biomedical Signal and Image Processing," in EEE Department, BRCM College of Engineering & Technology, Bahal, Haryana on 11 May 2013.

7. Dr. K K Gupta delivered Lecture on "Application of Wavelets in Image Processing," in AICTE sponsored and ISTE approved National workshop on Advanced DSP with Matlab and Its application, BRCM College of Engineering & Technology, Bahal, Haryana on 23 Aug 2013.
8. Invited talk by Dr. V K Chaubey on World Telecommunication & Information Society day at Institute of Engineers, IIT Roorkee Local Centre on the topic "Optical Communication in Telecommunication" on 21 May, 2013.
9. Invited talk by Dr. V K Chaubey on "Student discipline challenges in Engineering Institutes" in the faculty development program at VIT Global University at Jaipur on 19 July 2013.
10. Pre Conference Tutorial on the topic by Dr. V K Chaubey "Emerging Trends in Wireless Communication and Networks" on 20 Sept, 2013 for International Conference on Advanced Electronic Systems (ICAES-2013) at CEERI Pilani from 21-23 Sept. 2013.
11. Dr. Rajneesh Kumar was Publication Chair at the International conference on Emerging Technologies Micro to Nano, ETMN-2013, Goa, India, Feb 23-24, 2013, organized jointly by BITS, Pilani and CEERI, Pilani.
12. Dr. H.D. Mathur delivered a pre conference tutorial on "Frequency regulation issues in smart grid scenario with increasing wind energy penetration" in International Conference on Advanced Electronic Systems, September 20, 2013 Organized by CSIR-Central Electronics Engineering Research Institute, Pilani.
13. Dr. H.D. Mathur attended EPE control chapter symposium on Smart Grids with emphasis on "DC grid for more renewable energy penetration in the power networks of the future DC grid control and operations" in Paris, France, on January 24, 2013.
14. Dr. H.D. Mathur delivered keynote lecture in International Conference on Advance Trends in Engineering and Technology, 19 December 2013 at Jaipur on "Smart Grid Challenges and Opportunities: Power System Perspectives".
15. Dr. H.D. Mathur was resource person for AICTE sponsored winter school on "Recent trends in power electronics and their controls for industrial drives and renewable energy", 3-4 December, 2013, Department of Electrical Engineering, College of Technology and Engineering, Maharana Pratap University of Agriculture & Technology, Udaipur, Rajasthan.

#### **G. INVITED TALKS / VISITS OF DISTINGUISHED GUESTS ARRANGED IN THE DEPARTMENT:**

1. Dr. Rakesh Kumar, President, TC X, Inc. Technology Connexions, President, IEEE Solid-State Circuits Society, delivered a talk on Challenges, and Innovation and Entrepreneurship Opportunities in Microelectronics on 15 Nov. 2013.
2. Lieutenant General Sukhraj Pal Kochhar, Adjunct Professor at Birla Institute of technology and Science (BITS), had an interaction with faculty of EEE department on 16-17 Dec 2013.
3. Dr. Wolfgang-Martin Boerner, Professor Emeritus Dr., Dr. Hc.mult. Dr.-Ing. Eh. University of Illinois at Chicago, UIC-ECE, Communications, Sensing & Imaging and Navigation Laboratory visited and had an interaction with faculty of EEE department BITS Pilani, on Dec 19, 2013.
4. Prof Anthony D. Fagan, Head, School of Electrical and Electronics, University College Dublin (UCD, Ireland) visited and had an interaction with faculty of EEE department on 18th November, 2013.

#### **H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. Dr. Dheerendra Singh got best paper award for his research paper titled "Implementation of Indirect Field Oriented Control for HEV through Impedance Source Inverter" IEEE sponsored 1st National Conference on Power Electronics Systems & Engineering, PESA, 16-17 March, 2013, NIT Rourkela, India.
2. Dr. Navneet Gupta got Best Paper Award in for his research paper , "Switching time-analysis for non-uniform serpentine flexure based RF-MEMS switched", IEEE 2<sup>nd</sup> Students Conference on Engineering and Systems, Motilal Nehru National Institute of Technology (MNNIT) Allahabad, April 12-14, 2013.
3. Project (titled-- Design of A Low Power Wireless Forward Data Telemetry (WFDT) Unit for Implantable Biomedical Microsystems) done by Ishan Munje, Kapil Vatwani, Vivek Sharma &

Akshit Singhvi mentored by Dr. Anu Gupta was in the Top 7 of the Bachelor's category - Cadence Design Contest 2013.

#### **I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY/ UNIVERSITY IMMERSION**

1. Mr. G Sai Sessa Chalapathi attended a Two days Professor Summit on "Embedded System Design using Atmel XMEGA XPLD A1 and ARM based SAM 4L" organized by ATMEL India University Program at Indraprastha Institute of Information technology (IIIT), Delhi from 18 to 19 July 2013.
2. Prof. H D Mathur did his post doctorate for 6 months at SUPELEC (École Supérieure d'Électricité), Paris in the area of Smart Grid.

#### **J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR**

- NI-Elvis II hardware, Bio Instrumentation Kit, green engineering sensor kit in Instrumentation Technology Lab.
- 100 MHz, 4 channel Digital storage oscilloscope, in Power Electronics Lab.
- GSM trainer kit, GSM modem kits in Wireless Communication Lab.
- Highend IBM X3650 M4 Xeon 6cC server, Arbitrary Function generator, dual channel 25 M Hz in OLAB.
- LCR-Q meter in Power Electronics Lab.
- Synopsis full custom Electronic Design Automation software, silvaco tcad omni software in OLAB.
- Netsim software for designing communication system.

#### **K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES:**

##### (i) EEE Association

- APOGEE 2013 Projects: APOGEE 2013 saw a lot of projects from the Association with 17 projects getting selected for the final round, out of the 25 projects that were pitched by the Association. Three of these projects won prizes:

1. Sniff Activated Servant.
2. Near Field Communication Based Healthcare Management System.
3. Implementation of Customer Loyalty Program and Mobile Marketing Using NFC.

Near Field Communication Based Healthcare Management System won the APOGEE Awards by BITSAA. The projects titled "Near Field Communication Based Healthcare Management System" and "Implementation of Customer Loyalty Program and Mobile Marketing Using NFC" were selected to be funded by the L.K Maheshwari Foundation.

- APOGEE 2013 Events: EEE Association conducted the following events during APOGEE 2013:

1. Robo Wars (In association with Instrumentation Forum)
2. Track-O-Mania (In association with Instrumentation Forum)
3. Istrike(In association with Computer Science Association)
4. Hackatronics

Participation was good for all the events with participants coming from all over India.

- Robo Soccer: The second edition of Robo Soccer was held on 15 October 2013, for first year students who are interested in Robotics. Around 15 teams registered for the event out of which 7 completed their bots on time and participated in the final round. Knockout matches were held in the preliminary round which was followed by a best of 3 final.
- I<sup>2</sup>R Lectures: A Lecture series named I<sup>2</sup>R was conducted by the association to cultivate interest in Electronics among the first year students by introducing them to the basic electronics. The lectures were taken up the members of association covering the topics like Introduction to various Integrated Circuits and RF Communication and the lectures were followed by a hand on session



in which the students were given the hardware to create a small circuit. The response was good with students requesting for more such lectures.

(ii) Instrumentation Forum

- Robotica: With an aim to provide a platform to all robotics enthusiasts, the Instrumentation Forum organized the event, Robotica along with EEE Association on 19<sup>th</sup> January 2013. A total of 10 teams participated in the event. Each match involved two manually controlled wheeled robots trying to score goals against each other, following the problem statement made by slightly bending soccer rules to suit the event. Four preliminary matches were held followed by two semi-finals and a final.
- Track-o-Mania Workshop - Instrumentation Forum, in collaboration with EEE Association organised a workshop in February 2013 on line-follower robotics so as to encourage participation in Track-o-Mania, the line-follower robotics event held during APOGEE 2013. This workshop was also included in the APOGEE outreach programme, held at Delhi College of Engineering (DCE), New Delhi. It was conducted by third year electronics students, Mr. Srikar Anne, Mr. Vinit Bansal, Mr. Guru Darshan and Ms. Tanvangi Tiwari. The workshop was divided into 3 parts. The first part covered the theoretical aspects of line following while the second part dealt with basic Arduino programming. The third part of the workshop dealt with sensor interfacing. Electronic kits consisting of sensor arrays, Arduino mini boards, D.C Motors, motor driver ICs, connectors were distributed to the participating students. This workshop was attended by first, second as well as third year students. The audience was a rough number of 120-130. Simple Arduino based projects like blinking an L.E.D and running a DC motor with Arduino were also demonstrated.
- APOGEE 2013 Projects: APOGEE 2013 saw a flurry of projects from the forum which also resulted in some very interesting and challenging projects coming forward, with 20 projects getting selected for the final round, out of the 35 projects that were pitched by the Forum members. Six of these projects won prizes:
  1. Tuberculosis detection using ANN
  2. Human computer interface based on electro-oculography
  3. Abandoned object Identification
  4. 3D laser modelling using line laser
  5. Safe overtaking
  6. Interactive glove

Two Projects (Interactive Glove & Remote health monitoring system with remote access) were presented in the final round of Dhiti 2013. The project titled "Interactive Glove" was also selected to be funded by the Prof.L.K Maheshwari Foundation.

- APOGEE 2013 Events: Instrumentation Forum conducted the following events during APOGEE 2013:
  - Robo Wars (In association with EEE Association)
  - Track-O-Mania (In association with EEE Association)
  - Analog Design Contest
  - Circuit Design Challenge
  - Hackatronics
  - Virtuosity

Huge participation from both BITSian as well as outstation students was observed in all these events.

- RoboSoccer: The second edition of Robo Soccer was held on 15 October 2013, for the benefit of first and second year students interested in Robotics. Around 15 teams registered for the event out of which 7 completed their bots on time and participated in the final round. Knockout matches were held in the preliminary round which was followed by a best of 3 final.
- Poorvikaran Lecture Series: A series of lectures were conducted by the forum members in the months of September and October 2013, especially for the first year students with an aim to introduce them to the wide world of electronics. They were attended in huge numbers both by the first and the second year students of all branches. The lectures were broadly based on basic electronics (hardware), ICs, embedded systems and microcontrollers and their programming.

Most of the lectures were followed by hands-on session where the students were taught to set up their own electronic circuits and then run them either through software or hardware.

- BITS Pilani ISA Chapter: After long and diligent effort on the part of students and faculty associated with the Forum, the BITS Pilani ISA Chapter finally saw the light of the day in 2013. The Chapter was started with 20 students interested in activities of ISA, with Professor Surekha Bhanot as the Advisor. The members of the ISA have been invited to attend conferences conducted by ISA in Delhi, and have been granted access to journals that come under the ISA jurisdiction. The advantages of membership with ISA, though goes beyond the conferences and journals, and hence, a huge participation in the BITS-Pilani ISA Chapter is expected from the coming batches of electronics students.

#### **B1.10.8 Department: Humanities and Social Sciences**

Number of faculty members (as on 31 December 2013)

<b>Senior Professors, Professors</b>	–
<b>Associate Professors</b>	5
<b>Assistant Professors</b>	12
<b>Lecturers</b>	2
<b>Visiting Faculty</b>	1

**Head of the Department:** Dr. Geetha B.

**Contact details:** [geetha@pilani.bits-pilani.ac.in](mailto:geetha@pilani.bits-pilani.ac.in)

**Number of PhD Scholars: 14**

**Ph.D. Thesis Submitted during the year: 1**

**Research achievements**, (ongoing projects, sanctioned/completed this year), Publications-research articles, books, chapters, conference proceedings)

1. **Bakilapadavu Geetha.**, A Digital Humanities Approach to Interpret the Visual Culture of Shekhawati Region, CI: Shan Balasubramaniam. **Amount: 13,90,000/-**; BITS Seed Grant (Ongoing).
2. **Devika**, Development of Listening and Speaking Modules of English Language through Multimedia Lab for Rural Students of class XI-XII. **Amount received 4,09,500/-** ; UGC (Ongoing).
3. **Dhyani Umesh**, Social Political & Economic Contributions of the Birlas 2012. **Amount received 6,25,000/-**; Birla Museum (Ongoing).
4. **Pushp Lata** Transforming Language Learning with New Technologies for Enhancing Employability of College Students from Rural Background 2013. **Amount: 8,94,600/-**; **UGC** (Ongoing).
5. **Sushila Shekhawat**, *Cinematic Arts: A critical study of Multidisciplinary aspects in cinema 2012*. **Amount Rs.2.00**; RIG (Completed.).
6. **Shushila Shekhawat**, *Cinematic Arts: A critical study of Interdisciplinary Aspects in Cinema with special reference to Literature, Audio-Visual and Performance* received from UGC in March 2013. **Amount Rs.5,54,600** , Duration -two years , Funding Agency-UGC; (Approved).
7. **Virendra Singh Nirban** completed the Research Initiation Grant Project given by BITS Pilani, on "Use of New Media Technology to supplement Teaching in Higher Education" in December 2013. **Amount Rs. 1,95,000**; RIG (Completed).
8. **Virendra Singh Nirban** received two year Major Research Project on "Awareness, Uses and Implications of Using Web 2.0 Technologies in Supplementing Classroom Teaching at Higher Education" sponsored by UGC in April 2013. **Amount Rs.7,89,000/-**.

**PUBLICATIONS**

1. Arredondo David Gómez and Hari Nair, "Between café and cigarillos: Notes towards mapping the research trajectory and the intellectual legacy of Fernando Ortiz through a study of his select works" Priti Singh and Raymond Izarali (eds). *The Contemporary Caribbean: Issues and challenges*, Delhi: Shipra Prakashan, 2012-13, ISBN-139788175416598. 269-305.
2. Bakilapadavu Geetha., and Sushila Rathore, Integrating Humanities and Liberal Arts in Engineering Curriculum: Need, Experiences and New Directions *Journal of Social Sciences and Humanities*, Pertanika Journals. Vol 21(1) March 2013. pp 373-382.
3. Bhattacharya Kumar Shankar, "Caste as a Social Construct in Indira Goswami's *The Moth-Eaten Howdah of the Tusker and The Offspring.*" *Journal of Post-Colonial Cultures and Societies*. Vol.3 (2): 2012, pp 9-34.
4. Chauhan Gajendra S., "Language Change and Advertising Communication: Footloose and Fancy Free" Published in a book edited **Language & Society**. Ropar Bhhadal Tech Publications, January 2013.
5. Chasul and Sushila Shekhawat, "Techniques for Enhancing Vocabulary " in '*Language, Technology and Culture*', Ed. PushpLata, Devika and G S Chauhan. New Delhi: Jain Brothers. 237-242.
6. Chasul and V. S. Nirban, *Characterizing Behaviour of Online Student Community* *Research Journal of English Language and Literature*. Volume 1: Issue 1 pp 89-95.
7. Das Madhusmita and Sangeeta Sharma," The effect of Television advertising on Body Image of Women" *Pragyaa Journal of Management* Volume 3, Issue1&2, January-December 2013, pp22-30.
8. Das Swaha and Hari Nair,"*Visions of Secularism in India*"/ "*Les visions de la laïcité en Inde*" *Canadian Diversity/Diversité Canadienne*, vol. 10:1, Spring 2013 pp 44-48.
9. Das Swaha and Hari Nair, "*Republican conception of citizenship*" Ashok Acharya, ed., *Citizenship in a globalizing world*, (Delhi: Pearsons, Released in 2012). 92-108.
10. Devika, *Taking the World in their Stride: an Audacious Display of Self Assertion by Ammu and Virmati.*" *Journal of Law and Social Sciences*2(2) (April 2013) E-periodical.
11. Devika, "*An Insightful Display of Diaspora in Preeti Singh's Circles of Silence.*" *Literary Voice: a Bi-Annual Peer-Reviewed Journal*1(2) (Mar 2013): pp 46-52.
12. Devika and Piyush Gupta, "*Group Dynamics at Workplace.*" *ICOMBI: Proceedings of International Conference on Management and Business Innovation*. 2013 E copy.
13. Dhyani Umesh, *A New CSR Paradigm Towards Inclusive Growth* *Vikas Vani Journal*, Vol.VII Issue 2.
14. Kumar Neeraj Sachdev, *Morality, Good Life, and Selflessness Morality: Reasoning on Different Approaches*, edited by Vasil Gluchman, Amsterdam – New York, NY: Rodopi pp79-85.
15. Kumar Neeraj Sachdev, *Nature and Relevance of Ethical Communication in a Cybernetic Society* *Language and Society*, edited by Gurpreet Kaur, Ropar, Punjab (India): Bhaddal Tech. Publications, pp 229-232.
16. Lata, Pushp, *Transformation in Learning through Web 2.0 Interactive Instructional Materials for Enhancing Employability of College Students: A Need Analysis Approach* *JSTF:JLSS*(*Journal of Law and Social Sciences*. Vol 2.No.2. 2013 online journal.
17. Lata, Pushp and Suman Luhach, *Online collaborative language learning: opportunities and challenges* *International Conference Proceedings on Empowering English Language Classroom* organized by MNIT, Jaipur; New Delhi : Excellent Publishing House8-9 2013 pp105-1117.
18. Lata, Pushp and Devika, "*Instilling Creativity, Critical Thinking and Values for Holistic Development through Humanities and Liberal Arts Courses among Engineering Students.*" *Journal of Social Sciences & Humanities (JSSH)* . 21(1) (Mar 2013): pp329 – 340.
19. Nirban V. S. and Meenakshi Raman, *Characterizing Language Usage in Formal and Informal Webpage Text Corpus* *Journal of Communication and Media Technologies*. Volume 3; Issue 417-26.

20. Nirban V. S., and Anushree Rastogi, *Awareness, Uses and Implications of using Web 2.0 for Supplementing Classroom Teaching at Graduate Level* Research Journal of English Language and Literature. Volume 1: Issue 1 pp 96-101.
21. Nirban V.S. and Sushila Shekhawat, "*Functional and Language Usage in Online Media: Study of Blogs, Twitter and Facebook*". *Enhancing English Classroom*". Prakasham Publishers: Jaipur. pp 278-282.
22. Poonia Arun Kumar and Gajendra Singh Chauhan, "*Power of New Media and Language Change: What's Next?*" *The Literati, A Transnational Peer Reviewed Journal IISN 2248-9576 Summer (3.1) 2013*.
23. Shekhawat, Sushila *Cinematic Exploration of the Changed Realities in the Projection of Gender Specific Roles*. GSTF: JLSS(Journal of Law and Social Sciences Vol2.No.2.2013).
24. Shekhawat, Sushila *Silence as an Extended Metaphor in the Delineation of Introspective women in Shashi Deshpande's Novels*. Literary Voice. Volume1.No.2. 2013 pp 53-59.
25. Tejaswi R & Gajendra S. Chauhan, "*Who Breaks My News? – Business of Breaking News and its Retention Value*" *Scholarly Research Journal for Interdisciplinary Studies / (1295-1308) MAR-APR, 2013, VOL-I, ISSUE-V*.
26. Vyas Priti and Gajendra Singh Chauhan, "*The Preeminence of Soft Skills: Need for Sustainable Employability*" *International Journal of Social Science & Interdisciplinary Research ISSN 2277 3630 IJSSIR, Vol. 2 (5), MAY (2013)*.

### BOOKS

1. Chauhan Gajendra S., *Integration of Web 2.0 Technology and Culture in English Language Teaching*. 2013. (Co-edited) Jain Brothers, New Delhi.
2. Kumar Sanjay and Pushp Lata, *English for Effective Communication (for Kerala University)*, New Delhi: Oxford University Press (OUP), 2013.
3. Lata, Pushp Devika and Gajendra Singh Chauhan (eds), *Integrating Web 2.0 Technology and Culture in ELT*, eds International Conference Proceedings Second vol., 3<sup>rd</sup> Rajasthan ELT@ International Conference (8-9 October 2012), BITS, Pilani. New Delhi: Jain Brothers, 2013.
4. Lata, Pushp, Devika and Gajendra Singh Chauhan. *Integrating Web 2.0 Technology and Culture in English Language Teaching*. New Delhi: Jain Brothers, 2013. ISBN: 9788183601962.
5. Sangwan, Devika. *A Journey from Innocence to Experience: Evolution of Feminist Fiction*. New Delhi: Excellent Publishing House, 2013. ISBN 9789383083091.
6. Tathagato. Chakraborty, "*Top Heavy Urbanization in West Bengal*" in *Challenges of Urbanization in the 21st Century Vol. 4* ed. by Kalpana Markandey et. al. New Delhi: Concept Publishing Company, 2013.

### CONFERENCES

1. Bhattacharya Kumar Shankar, "*Unhomed and Deterritorialized: Quest for National Identity in Indira Goswami's the Ahran*." South Asian Literary Association Conference Chicago, IL January 8-9, 2014.
2. Bhattacharya Kumar Shankar, "*Disnarrating the Events of 1857: Reading J.G. Farrell's The Siege of Krishnapur*." Tufts University, 44th Annual Convention, Northeast Modern Language Association (NEMLA), Boston, MA. March 21-24, 2013.
3. Chakraborty T, *City City Bang Bang* University of Delhi, Delhi March, 2013
4. Choubisa Rajneesh, *Do Big Five Traits Moderate the PsyCap Dimensions in Promoting Citizenship Behaviors: A Pilot Investigation with Early Career Academic Professionals* Second Czech Positive Psychology Conference Masaryk University, Brno, Czech Republic. May 22-25, 2013.
5. Choubisa Rajneesh, *Appreciative Inquiry in Informal Mentor-Protege Academic Relationships: A Well-Being Enhancement Outlook* XXIII Annual convention of the National Academy of Psychology held at NIT-Rourkela (ODISHA) 13-15th December 2013.
6. Choudhary, S. K. *Teaching of Courses in Humanities and Liberal Arts to Engineering and Technology Students: Why, What, When and How* National Conference on Rethinking the Role of

- Humanities in Technical Education: Pedagogies and Possibilities BITS Pilani-Hyderabad Campus 18-19 October 2013.
7. Chauhan, Gajendra S., *"Hinglish on A Platter: Communication Beyond borders."* Multidisciplinary Conference in Humanities and Social Sciences Indian Institute of Technology, Indore December 20th-21st, 2013.
  8. Chauhan, Gajendra S., *"English Language Teaching in a Globalized World: Count Their Aspirations, Before You Teach."* International Conference on Globalization and the Teaching of English Jaipuria Institute of Management, Jaipur /Jain Vishva Bharti Institute (Deemed University), Ladun October 19-20, 2013.
  9. Chauhan, Gajendra S., *"Who Breaks My News? – Business of Breaking News and its Retention Value"* National Conference on Media and communication Jaipuria Institute of Management, Jaipur. February 8-9 2013.
  10. Chauhan, Gajendra S., *"Decoding the Language of Matrimonial Ads: Impact of New Media and Changing Communication Patterns."* International Conference on Empowering the English Language Classroom Department of Humanities & Social Sciences, MNIT, Jaipur 18-19 January, 2013.
  11. Das, Madhusmita and Sangeeta Sharma, *"The Influence of Television Advertising on Changing Perception of Women about their Body Image"* National Conference on Media and Communication Jaipuria Institute of Management Jaipur. 8<sup>th</sup> & 9<sup>th</sup> February 2013
  12. Das, Madhusmita and Sangeeta Sharma *"Stereotyping of Women in Television Advertising"* International Conference on Management and Business Innovation Malaviya national Institute of Technology( MNIT), Jaipur 18<sup>th</sup> -19<sup>th</sup> May 2013
  13. Devika and Piyush Gupta. *"Group Dynamics at Workplace."* International Conference on Management and Business Innovation. Jaipur May 18-19, 2013.
  14. Nair Hari, *"Democratic renewal through transparency laws and inclusive politics in Bolivia, India and Mexico."* Sixth South-South Institute organized by Latin American Council for Social Sciences/Consejo Latinoamericano de Ciencias Sociales(CLACSO), Council for the Development of Social Science Research in Africa (CODESRIA), and International Development Economics Associates (IDEAs) Santiago de Chile, Chile 26 Sept and 03 Oct 2013
  15. Nirban, V.S. and Sushila Shekhawat, *Functional and Language Usage in Online Media: Study of Blogs, Twitter and Facebook* International Conference on Enhancing English Classroom MNIT Jaipur, Rajasthan 18–19 January
  16. Sharma Sangeeta, and Atin Anrishi *"Targeted Marketing: A way of optimizing the resources through social media"* SIMSR 8<sup>th</sup> Global Marketing conference K.J. Somaiya Institute of Management Studies and Research, Mumbai 4-5 January 2013.
  17. Sharma Sangeeta, and Madhusmita Das *"Honour Killing: Shame to the humanity"* National Conference on Honour Killing: The mind and the mindset challenges and remedies, Nehru studies centre, Dept of Political Science, University of Rajasthan, Jaipur 12-13 January 2013.
  18. Singh Rajni, S K Choudhary and **V.S. Nirban**, *Gender Differentiation in Usage of Online Media* International Conference on Enhancing English Classroom MNIT Jaipur, Rajasthan 18–19 January.
  19. Shukla Tanu, *Socio-organizational Marginalization in Higher Education* XXIII Annual convention of the National Academy of Psychology held at NIT-Rourkela (ODISHA) 13-15<sup>th</sup> December 2013.
  20. Vyas, Poonam, Sangeeta Sharma *"The Importance of English Language in Tourism Industry"* CMTHS, HNB Garhwal Central University, Srinagar Garhwal and Department of Hotel Management International Conference on *Tourism and Hospitality Industry: Modern State, problems and perspectives* Graphic Era University, Dehradun 11-12 May, 2013.
  21. Vyas, Poonam, Sangeeta Sharma. *"Communication Challenges in International Milieu"*, School International Business Conference IBSCON Amity International Business School, Amity University, Noida 15 March, 2013
  22. Yadav, Dinesh, *Capturing devotionality for theatre festivity* ISTR/ IX Annual International Conference of theatre research Budge Budge Institute of Technology, Kolkata 2-4 March 2013.

23. Yadav, Dinesh, *Pagadi Project* World Stage Design 2013 Royal Welsh College of Music and Drama, Cardiff UK 8-15 September 2013.
24. Yadav, Dinesh, *Technology in/and Site-Specific Performances for sustainable theatre practices* ISTR/ IX Annual International Conference of theatre research. Department of Media and Cultural Studies, Central University of Rajasthan 8-11 January 2014.

## WORKSHOPS AND INVITED TALKS

1. Chauhan Gajendra S., As a Resource Person conducted a Two-day National Workshop on “*Soft skills, Personality Development and Job Communication Skills*” for the faculties and students of O.P. Jindal Institute of Technology, Raigarh on 1-2 February, 2013.
2. Chakraborty Tathagato, IEG-ICSSR Workshop on "Social Science Approaches to Urban Studies" held at The International Center, Goa, 19-22 Dec, 2013. Participated and presented paper as a Fellow.
3. Devika, “Common Errors in English.” Govt. College of Engineering & Technology, Bikaner. 20 December 2013.
4. Devika, “Tools of Data Collection Databases and Allotment of Field Study.” Vivekananda Global University, Jaipur. 19 December 2013.
5. Devika, “Group Dynamics in Group Discussion.” JKBS, Gurgaon. 6 Oct. 2013.
6. Devika, Two invited lectures on Soft Skills in the Orientation Programme-12 held at Academic Staff College, Guru Jambheshwar University of Science and Technology, Hisar during 15.04.2013-11.05.2013 (03.05.2013)
7. Sharma Sangeeta, An invited talk on “Effective Communication Skills” for teachers and students of Sangam University, Bhilwara, 13 th January 2013.
8. Sharma Sangeeta, An invited talk on “Role of communication in Knowledge management” In MNIT Jaipur, 8<sup>th</sup> April 2013.
9. Sharma Sangeeta, Special talk during Mid Service Training Programme for IOFS officers of JAG grade on “Presentation Skills” at National Academy of Defence Production, Ambajari, Nagpur on 12<sup>th</sup> April 2013.
10. Sharma Sangeeta, An invited talk on “Creativity in Teaching” for Birla Shishu Vihar Teachers on 9<sup>th</sup> May 2013.
11. Sharma Sangeeta, An invited talk on “Phonetics and Spoken English” for Birla School Teachers on 11<sup>th</sup> May 2013.
12. Sharma Sangeeta, An invited talk on “Importance of verbal communication in Group Discussion” on 6<sup>th</sup> October 2013 at JKBS, Gurgaon.
13. Sharma Sangeeta, An invited talks on “Role of Etiquette and Personality in Interviews” at MNIT, Jaipur on 26<sup>th</sup> -27<sup>th</sup> October 2013.
14. Sharma Sangeeta, attended a four- day **Workshop on Research Methodology** at JK LakshmiPat University, Mahapura, Ajmer Road, Jaipur during 15 May- 19 May 2013.
15. Yadav Dinesh, Pagadi Project, 9th September 2013. World Stage Design 13, Royal Welsh College of Music and Drama, Cardiff UK.
16. Yadav Dinesh, 25 May - 20 June 2013 Summer Theatre Workshop, Theatre in Education (TIE) Company National School of Drama New Delhi.
17. Yadav Dinesh, The Manganiyar Seduction 2 - 4 November 2013, White Light Festival, Lincoln Centre New York USA.

### Guest editor for journals, editorials

- Sharma Sangeeta, Member of Board of Studies for Desh Bhagat University
- Sharma Sangeeta, Member of Advisory Council of AIMS , International, USA
- Sharma Sangeeta, External member of Advisory Committee for CWS, MD University, Rohtak

**Departmental activities (conferences, seminars & workshops, invited talks)**

1. Choudhary S. K., Nominated on the Editorial Boards of following international journals
  - English Language Teaching published by Canadian Center of Science and Education, Toronto
  - International Journal of English Linguistics published by Canadian Center of Science and Education, Toronto
2. Choudhary S. K., Editorial Committee member of the forthcoming journal ELTIAJ published by ELTI, Assam.
3. Devika, Associate Editor. *Contemporary Issues in Languages and Humanities*. ISSN No. 2249-9792.
4. Devika, Editorial Board Member for the GSTF *Journal on Education* (JEd), Singapore.
5. Lata, Pushp, Arab World English.
6. Lata, Pushp, Arts and Humanities from BIOINFO (Associate Editor, 2013-14).
7. Lata, Pushp, ELT Research Journal (Guest Editor, 2014).
8. Lata, Pushp, Journal of Education from JSTF (Co editor).
9. Lata, Pushp, Member of Review Board (2013) International Association of Scientific Innovation and Research (IASIR), STEM Scientific Online Media and Publishing House, 148, Summit Drive, Byron, Georgia-31008, United States.
10. Sharma Sangeeta, Organized lecture for Creative thinking course by Prof Phani Tetali, IIT Mumbai on "Creativity and Animation" on 16<sup>th</sup> October 2013.

**Departmental activities (conferences, seminars & workshops, invited talks)**

The department in collaboration with Hindi Drama Club( a students body of theatre enthusiasts)organized **Melange**: a three day **Theatre Festival** from 7-9 October, 2013 to provide its students and faculty an exposure to the world of professional theatre. It is for the first time that a theatre event of this magnitude was organized at BITS Pilani wherein some of the best Productions in Live Entertainment and Dramatics today in India are brought to the campus. The festival was directed by Dr. Geetha. B and Dr. Dinesh Yadav, coordinated by Dayesh Jaiswal and Curated by Swayambhu Foundation. It saw personalities Piyush Mishra, Rajath Kapoor, Vinay Pathak, Nadira Zaheer Babbar, and Yashpal Sharma from the entertainment industry.

The department proposed and got the approval for a Minor programme in Film and Media for the First Degree Students of the Institute. It is for the first time that BITS Pilani has introduced a Minor programme.

**Awards and recognitions won by faculty and students**

1. Sharma Sangeeta, Received Distinguished Educator Award, 2013 by Discovery Education Media Pvt.Ltd, at Hotel Park New Delhi.
2. Yadav Dinesh, Junior Research Fellowship by Ministry of Culture Govt. of India.
3. Yadav Dinesh, Production Grant by Ministry of Culture Govt. of India.
4. Yadav Dinesh, Rajeev Gandhi Leadership Award by India Peace Foundation.



**B1.10.9 Department: Mathematics**

Number of faculty members (as on 31 December 2013)

<b>Senior Professors, Professors</b>	03
<b>Associate Professors</b>	03
<b>Assistant Professors</b>	13
<b>Lecturers</b>	00
<b>Visiting Faculty</b>	02

**Head of the Department:** Dr. Pradipkumar Haribhau Keskar

**Contact details:** keskar@pilani.bits-pilani.ac.in

**Number of Ph. D. Scholars:** 07

**Ph.D. Thesis Submitted during the year:** 00

**A. SPONSORED RESEARCH ACTIVITIES**

Total number of Funds (Sponsored Projects, funds through various programmes) in the department: 06.  
Details are given below.

**1. Ongoing projects: 03**a) Principal Investigator: **Dr. Padma Murali**

Project titled "Cardiovascular Disease in Human Population: Mathematical Modeling and Analysis of its Incidence, Risk Factors and Preventive Strategies", UGC Major project grant received w.e.f. from 1.2.2011 till Feb. 1, 2014 for a period of 3 years. Grant amount is Rs. 8,44,000.

b) Principal Investigator : **Ms. Atasi Patra**

Project titled "Dynamics of Biological Species: Some Mathematical Models", under the scheme WOS-A of DST, Govt of India, for 3 years. Grant Amount is 10.86 Lakhs

c) In addition to the individual projects, the department is supported by the UGC-SAP (DRS-I) of Rs. 71.5 lakhs, No.: F.510/2/DRS/2010/(SAP-I) for a period of 5 years (1.04.2010 to 31.03.2015). Co-ordinator: **Prof. Balram Dubey****2. Projects funds sanctioned during the year : 03**a) Principal Investigator : **Dr. Suresh Kumar**

A major research project entitled "Dark Energy Modeling of Cosmic Acceleration with Observational Constraints in Einstein Gravity and Modified Theories" of duration three years (Starting from 06-09-2013) awarded by the Department of Science and Technology (DST) under the FAST track scheme for a young scientist, for a period of 3 years. The project budget is Rs. 1416000.00 ( Fourteen Lakhs and Sixteen Thousand).

## b) In addition to individual projects, the department received funding through the following programmes :

(i) UGC-infrastructure fund of Rs. 20,00000.00 (Twenty Lakhs)

(ii) FIST (Level-I) grant of Rs. 95,00000.00 (Ninety five lakhs) (award letter received)

**3. Projects completed this year : 00**

## B. PUBLICATIONS

The faculty of the department published 34 papers in international/national refereed journals during the year.

1. **Amit K. Verma, Mandeep Singh**; "Maximum principle and nonlinear three point singular boundary value problems arising due to spherical symmetry," *Communications in Applied Analysis. An International Journal for Theory and Applications*, (2013) (Accepted).
2. **Mandeep Singh and Amit K. Verma**; [Invited Article] "Picard type iterative scheme with initial iterates in reverse order for a class of nonlinear three point BVPs," *International Journal of Differential Equation (Hindawi)*, Volume 2013 (2013), Article ID 728149, 6 pages.
3. **Mandeep Singh and Amit K. Verma**; "On a monotone iterative method for a class of three point nonlinear nonsingular BVPs with upper and lower solutions in reverse order," *Journal of Applied Mathematics and Computing (Springer)* 43, 99–114 (2013).
4. **A. Tiwari** and S. Deo; Pulsatile flow in a cylindrical tube with porous walls: Applications to blood flow, *Journal of Porous Media* 16 (4) (2013).
5. Pramod Kumar Yadav, **Ashish Tiwari**, Satya Deo, Manoj Kumar Yadav, Anatoly Filippov, Sergey Vasin, and Elena Sherysheva; Hydrodynamic Permeability of Biporous Membrane, *Colloid Journal* 75 (4) (2013).
6. **Dubey B., Patra A.**, Srivastava P.K. and Dubey Uma S.; Modeling and analysis of an SEIR model with different types of nonlinear treatment rates, *Journal of Biological Systems*, Vol. 21, No. 3 (2013) 1350023, 25 pages, DOI: 10.1142/S021833901350023X.
7. Upadhyay R. K., Naji R. K., Raw S. N. and **Dubey B.**; The role of top predator interference on the dynamics of a food chain model, *Communications in Nonlinear Science and Numerical Simulation*, 18(3), 757 – 768, 2013.
8. **Dubey B, and Patra Atasi**; A mathematical model for optimal management and utilization of a renewable resource by population, *Journal of Mathematics*, Vol 2013, Article ID 613706, 9 pages, 2013.
9. **Dubey B, and Patra Atasi**; Optimal Management of a Renewable Resource Utilized by a Population with Taxation as a Control Variable, *Nonlinear Analysis: Modelling and Control*, 18(1), 37-52, 2013.
10. **Sharma, B. K.**, Singh, A. P., Yadav, K., & Chaudhary, R. C.; Effects of chemical reaction on magneto-micropolar fluid flow from a radiative surface with variable permeability. *International Journal of Applied Mechanics and Engineering*, 18(3), 833-851 (2013).
11. **Sharma, B. K.**, Gupta, S., Krishna, V. V. and Bhargavi, R. J.; Soret and Dufour effects on an unsteady MHD mixed convective flow past an infinite vertical plate with Ohmic dissipation and heat source. *Afrika Matematika (Springer)*, 24, 1-23, DOI 10.1007/s13370-013-0154-6 (2013).
12. **Sharma, B. K.**; Comments on the paper "A study of induced magnetic field with chemically reacting and radiating fluid past a vertical permeable plate". *Journal of Engineering Physics Thermo physics (Springer)*, 86 (1), 238-239 (2013).
13. **Sharma, B. K.**; Comment on "Steady mixed convection stagnation-point flow of upper convected Maxwell fluids with magnetic field ". *International Journal of Physical Science*, 8(13), 508-509 (2013).
14. **Sharma, B. K.**, Mishra, A. and Gupta, S; Heat and mass transfer in magneto-biofluid flow through a non-Darcian porous medium with Joule effect. *J. Eng. Phys. & Thermo Phy. (Springer)*, 86(4), 716-725, . (2013).
15. **C.B. Gupta, Sachin Kumar**; A study on role of sterilization and its impact on society , *Ganita Sandesh*, Vol. 26. No. 2 pp 77-83, March 2013.
16. **C.B. Gupta**, Tarun Kumar and S.R. Singh; A Fuzzified EMQ Inventory Model With Uniform Distribution and Time Dependent demand, *IJESR (August 2013)*, Vol.3 (8) pp. 4444-4453.
17. **C.B. Gupta**, Vipin Kumar and Gopal Pathak; A Deterministic Inventory model for deteriorating items with selling price dependent demand and parabolic time varying holding cost under trade credit, *IJSCE (September 2013)* Vol. 3(4) pp.33-37.

18. Jain, M., **Shekhar C.**, and Shukla, S.; Queueing analysis of two unreliable servers machining system with switching and common cause failure, *Int. J. Mathematics in Operational Research*, Vol. 5, No. 4, pp 508-536 (2013).
19. **Shekhar, C.** and Jain, M.; Finite queueing model with multitask servers and blocking, *American Journal of Operational Research*, Vol. 3, No. 2A, pp 17-25 (2013).
20. Jain, M., **Shekhar C.**, and Shukla, S.; Machine repair problem with an unreliable server and controlled arrival of failed machines, *OPSEARCH*, DOI 10.1007/s12597-013-0152-3 (2013).
21. Jain, M., **Shekhar C.**, and Shukla, S.; Vacation queueing model for a machining system with two unreliable repairmen, *International Journal of Operational Research* (in press) (2013).
22. Devendra Kumar; A Computational technique for solving boundary value problem with two small parameters, *Electronic Journal of Differential Equations*, Vol. 2013, No. 30, pp. 1-10, 2013.
23. **Rajesh Bhatt & Dilip K Maiti**; Shear flow past two square cylinders in staggered arrangement near a wall, *Proceedings of 58th Congress of ISTAM* (<http://istam.iitkgp.ac.in>) held at : BESU Shibpur; Howrah, W.B. ([www.becs.ac.in](http://www.becs.ac.in)), paper no. 58-istam-fm-fp-48
24. Javid Iqbal and **Javid Ali**; Wavelet packet transform on  $L^p(\mathbb{R})$  spaces, *J. Nonlinear Sci. Appl.* 6, 305-311 (2013).
25. Izhar Uddin, M. Imdad and **Javid Ali**; Convergence of Ishikawa iterative process involving a hybrid pair of generalized nonexpansive mappings in Banach spaces, *Bull. Malaysian Math. Sci. Soc.*, (2013), accepted.
26. **Padma Murali** and Murali Raman; Modeling the dynamics of amyloid formation of islet beta cells under therapeutic interventions and its role in discovery of novel target for drug action, *International Journal of Life sciences and Medical Research*, Vol.3, No.1, pp. 1-10, 2013.
27. **Rakhee**, Geetanjali Sharma, Kriti Priya; Analysis of G-queue with unreliable server, *OPSEARCH*, (DOI) 10.1007/s12597-012-0117-y, vol. 50(3) pp. 334-345, 2013.
28. **Sangita Yadav**, Amiya K Pani and E.-J. Park; Superconvergent discontinuous Galerkin methods for nonlinear elliptic equations, *Mathematics of Computation*, 82, pp 1297-1335, 2013.
29. **Sangita Yadav**, Amiya K. Pani and Neela Nataraj; Superconvergent discontinuous Galerkin methods for nonselfadjoint and indefinite elliptic problems, *Journal of Scientific Computing*, 54, pp 45-76, 2013.
30. Deepjyoti Goswami, Amiya K. Pani and **Sangita Yadav**; Optimal error estimates of two mixed finite element methods for parabolic integro-differential equations with nonsmooth initial data, *Journal of Scientific Computing*, 56 , pp 131-164, 2013.
31. Sarvesh Kumar and **Sangita Yadav**; Modified Method of Characteristics Combined with Finite Volume Element Methods for Incompressible Miscible Displacement Problems in Porous Media, *International Journal of PDEs*, 2013 (Accepted).
32. Deepjyoti Goswami, Amiya K. Pani and **Sangita Yadav**; Optimal  $L^2$  estimates for semidiscrete Galerkin method applied to parabolic integro-differential equations with nonsmooth data, *Australian and New Zealand Industrial and Applied Mathematics Journal*, 2013 (Accepted).
33. Suresh Kumar, Anisotropic model of a dark energy dominated universe with hybrid expansion law, *Gravitation and Cosmology* 19, 284-287, 2013.
34. **Trilok Mathur**, Ruchi Mathur and Deepa Sinha; Characterization and Subordination Properties for  $\lambda$ -Spirallike Generalized Sakaguchi Type Functions; *Palestine Journal of Mathematics*; Vol. 3(1), 70-76, 2014 (Accepted in 2013).

### C.1 CONFERENCES ATTENDED/PAPERS PRESENTED

1. Atasi Patra; Dynamics of a Renewable Resource Model under Optimal Harvesting, 100th Indian Science Congress, Calcutta University, Kolkata, January 3-7, 2013 .
2. Atasi Patra; Modeling the Dynamics of a Renewable Resource under Harvesting with Taxation as a control variable, International Conference on Mathematical Modeling and Computer Simulation with Applications, Department of Mathematics and Statistics, Indian Institute of Technology, Kanpur, 31 Dec 2013 - 2 Jan, 2014.

3. C. B. Gupta; Chaired technical session on 23 Feb. 2013, and Convener, Technical committee, National Workshop on Modeling and Computation, Department of Mathematics, BITS, Pilani
4. C. B. Gupta; Chief guest at valedictory function on 24 Feb.2012, International Conference on Technology Innovation through Modern Engineering Science, Department of Applied Science, IET Alwar, 23-24 February,2013
5. C. B. Gupta; With Neeraj Kumar, S R Singh and Rachna Kumari; Two ware house Inventory Model With Multivariate Demand and K –Release Rule, Presented in First International conference on computational Intelligence: Modeling, Techniques and Application (CIMTA 2013) held at Department of Computer Science and engineering, university of Kalyani during 27-28 Sep. 2013. (presented by Neeraj Kumar)
6. C. B. Gupta; Role of Sterilization in family planning program, International conference on Technology Innovation through Modern Engineering science, IET Alwar, 24.2.2013
7. Chandra Shekhar; Presented a paper entitled 'Machine repair problem with controlled arrival of failed machines' in national conference on Mathematical Modelling and Application in Science and Engineering (MMASE 2013) organized by Department of Mathematics, National Institute of Technology, Patna (India) on March 09-10, 2013.
8. Chandra Shekhar; Presented a paper entitled 'Fuzzy analysis of machine repair problem with switching failure and reboot' in international conference on Mathematical techniques in engineering applications (ICMTEA-2013) organized by Department of Mathematics, Graphic Era University, Dehra Dun (India) on October 24-25, 2013.
9. D. K. Maiti; Numerical Study on Suppression of Vortex Shedding from Square Cylinder by Offsetting Rectangular Cylinder Near Plane, 100th Indian Science Congress, Calcutta University, Kolkata, January 3-7, 2013
10. D. K. Maiti; Shear flow past two square cylinders in staggered arrangement near a wall, 58th CONGRESS of Indian Society of Theoretical and Applied Mechanics- at Engineering and Science University(BESU), Shibpur, Howrah, Date: December 18-21, 2013
11. Javid Ali; delivered a contributed talk entitled "Coincidence and common fixed points of nonlinear mappings in Menger spaces" in "International Conference on Applied Analysis & Math. Modeling" held at Yildiz Technical University, Istanbul, Turkey during June 02-05, 2013.
12. Javid Ali; presented a paper entitled "Coincidence and common fixed points of non-self mappings and an application" in National Conf. on Role of Mathematics in Advancement of Science & Technology" held at BSNV PG College, Lucknow during Oct 18-20, 2013.
13. Rajiv Kumar; Presented a paper on "Multiplicative perturbation of generators of semigroups" in , International Conference on "Mathematical Modeling and Numerical Simulation" at Babasaheb Bhimrao Ambedkar University (A Central University) Lucknow during July 01-03, 2013.
14. Rajesh Bhatt; Presented a paper "Numerical Study on Shear flow past Square cylinder in presence of in-line upstream rectangular cylinder near a wall" in International Conference on Mathematical Modeling and Computer Simulation with Applications at the department of Mathematics and Statistics, Indian Institute of Technology Kanpur December 31, 2013- January 02, 2014.
15. Rakhee; presented a paper entitled "Performance Analysis of Cellular Mobile Radio System Based on Prioritized Channel Assignment", in the International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2013), organized by Yildiz Technical University, Istanbul, Turkey and Putra University, Malaysia, held during 2-5 June 2013.
16. Rakhee; presented a paper entitled "An analysis of channel assignment scheme for cellular mobile Radio network" in the International: Conference on Operations Research for Data Analytics and Decision Analysis, held at University of Kashmir, Srinagar during 21-23, October 2013.
17. Shivi Agarwal; presented a paper entitled "Fuzzy Slack Based Measure (SBM) of Data Envelopment Analysis: A Possibility Approach", 3rd International Conference on Soft Computing for Problem Solving (SocPros-2013) held at Greater Noida Extension Centre of IIT Roorkee, during from December 26-28, 2013.
18. Shivi Agarwal; presented a paper entitled "Fuzzy Data Envelopment Analysis Model: A Possibility Approach", International Conference on Operations Research for Data Analytic and

Decision Analysis (ICORDADA-2013) held at University of Kashmir, Srinagar during from October 19-23, 2013.

19. Shivi Agarwal; presented a paper entitled "Data Envelopment Analysis with Fuzzy Data", International Conference on Applied Analysis and Mathematical Modeling (ICAAMM-2013) held at Yildiz Technical University, Istanbul, Turkey during from June 02-05, 2013.
20. **Shivi Agarwal** and Shiv Prasad Yadav; presented a paper entitled "Fuzzy BCC Data Envelopment Analysis Model", National Conference on Recent Trends in Operations Research (NCRTOR 2013) held at ASET, New Delhi, during from April 11-12, 2013.
21. Pranshu Gupta, **Shivi Agarwal** and Shiv Prasad Yadav; presented a paper entitled "Scale Efficiency by Fuzzy Data Envelopment Analysis Model", National Conference on Recent Trends in Operations Research (NCRTOR 2013) held at ASET, New Delhi, during from April 11-12, 2013.
22. Trilok Mathur; presented paper "Sufficient Conditions For Generalized Sakaguchi Type Functions of Order  $\beta$ " in International Conference "Complex Analysis and Related Topics" at Lviv, UKRAINE from September 23-28, 2013.

## C.2 WORKSHOPS ATTENDED

1. Nidhi Chaudhary; Advanced workshop on mathematical modeling and differential equations held at IIT Patna during 7 July to 14 July 2013.
2. Padma Murali; Advanced Workshop on Mathematical Epidemiology & Differential Equations' arranged by (AWMEDE - 2013) /NPDE-TCA-IIT, Bombay, at IIT Patna/ July 8 -13, 2013.
3. Pankaj Biswas; Elliptic Equations: Variational Formulation and Numerics held in LNMIIT Jaipur during December 09-20, 2013.
4. Pankaj Biswas; Advanced Workshop on Mathematical Foundation of Advanced Finite Element Methods (MFAFEM-2013) " held in BITS-Pilani, Goa Campus from 26th December 2013 to 3rd Jan 2014.
5. Rajesh Bhatt; Advanced workshop on "Recent Development on Numerical Methods for Evolution Equations" Department of Mathematics, Indian Institute of Technology Bombay, March 18-21, 2013.
6. Sangita Yadav; Workshop on Optimization with PDE constraints, TIFR-CAM Bangalore, Nov. 25 - Dec. 6, 2013.
7. Sangita Yadav; Advanced Workshop on Non-Standard Finite Element Methods (AWNSFEM-2013), IIT Bombay, February 11-15, 2013.
8. Trilok Mathur; National Workshop on Differential Geometry sponsored by DST under CMS, at Department of Mathematics & Statistics (CMS) at Apaji Institute in Banasthali University, Rajasthan from October 23-27, 2013.

## D. BOOKS PUBLISHED/EDITED DURING THE YEAR

1. **C B Gupta**, A. K. Malik and P. K. Dwivedi; Engineering Mathematics II, New age International, New Delhi. 2013.
2. C. B. Gupta; Editor in chief for the proceedings of the 3rd annual international conference on Operations research and statistics held at Singapore during 3-4 April 2013.

## E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED

'National Workshop on Modeling and Computation' on 23-24, February, 2013 in BITS-Pilani at Pilani. Convenor : Balram Dubey, Organizing Secretary : Dilip Kumar Maiti The conference was supported by UGC-SAP DRS –I and DST, Government of India.

**F. INVITED TALKS GIVEN BY BITS FACULTY**

1. A. K. Verma; DST Inspire lecture on on Calculus via Mathematica in SRIMT BKT Lucknow on 14th July 2013.
2. A. K. Verma; A talk on "Nonlinear Singular Differential Equations Arising in Real Life" is delivered in front of PAC in a workshop organized by DST in IIT Chennai on 18th November 2013.
3. A. Tiwari; Delivered an invited lecture on Oscillation theory of Differential equations at Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad during Feb 26-27, 2013.
4. B. Dubey; Optimal harvesting of a renewable resource, IIT Patna, in a Workshop on "Mathematical Epidemiology and Differential Equations" during July 08-13, 2013.
5. B. Dubey; Optimal management of a renewable resource utilized by a population with taxation as a control variable, IIT Patna, in a Workshop on "Mathematical Epidemiology and Differential Equations" during July 08-13, 2013.
6. B. Dubey; Optimal management of a natural resource: role of mathematical modeling, South Asian University, New Delhi, 28.08.2013.
7. C. B. Gupta; Chief Guest and Key note Speaker, National workshop on Computational methods in Engineering and Mathematics using MATLAB and Mathematica, Department of Mathematics, Marudhar Engineering College, Bikaner, 19-20 April, 2013
8. C. B. Gupta; Applications of Mathematics, Invited talk, Department of Mathematics, RPS (PG) College, Mahendra Garh(Haryana), 30.09.2013
9. C. B. Gupta; Applications of Simulation, Invited talk, Manipal university, Jaipur, 07.11.2013
10. C. B. Gupta; Simulation and its application, Invited Talk in Refresher course in Mathematics and Statistics, GJU of S&T, Hisar, 30.12.2013
11. G. Venkiteswaran; Quasi-Monte Carlo Methods, Invited talk in Madras Institute of Technology/18/12/2013.
12. Javid Ali; delivered an invited talk entitled "On various concepts of fuzzy metrics and applications" in National Workshop on "THE FUZZY SETS & FUZZY LOGIC- FUZZY-13" held at Govt. E. Raghvendra Rao Science PG College, Bilaspur (C.G.) during Feb 01-02, 2013.
13. Rajiv Kumar; gave a course of lectures on "Analysis" in a Refresher Course in Mathematics and Statistics at Academic Staff College, Guru Jambheshwar University of Science & Technology, Hisar from Dec 11, 2013 to Dec 31, 2013.
14. Trilok Mathur; gave an invited talk in Workshop on MATLab, at IIS University, Jaipur from 17-18 March, 2013.

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT**

Prof. Govindan Rangrajan, Department of Mathematics, Indian Institute of Science Bangalore; delivered a talk on "Are you connected? Detecting connectivity patterns in networks."

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. C. B. Gupta; Associate editor for the journal of Mathematics, Statistics and Operations research published GSTF, Singapore.
2. C. B. Gupta; Awarded Glory of India 2013 Award by India International Friendship Society, New Delhi.
3. C. B. Gupta; Listed in Marquis who is who USA 2013.
4. C. B. Gupta; Chief Guest on the occasion of Teacher' day on 5.9.2013 held at Singhania university Pacheri bari to facilitate 15 teachers and give Singhania university seva rattan puraskar 2013.
5. Chandra Shekhar; Member, Advisory Board, National conference on Mathematical Modelling and Application in Science and Engineering (MMASE 2013) organized by Department of Mathematics, National Institute of Technology, Patna (India) on March 09-10, 2013.
6. Chandra Shekhar; Appointed as Observer, Central Board of Secondary Education-All India Pre-Medical Test-2013 (A national level examination).

7. Javid Ali; Best research paper presentation award in "National Conf. on Role of Mathematics in Advancement of Science & Technology" held at BSNV PG College, Lucknow during Oct 18-20, 2013.
8. Udbhav Prasad; a 4<sup>th</sup> year student doing M. Sc. (Hons) in Mathematics and a dual degree of B. E. (Hons) in Computer Science, received Charpak Scholarship of French Embassy to visit Ecole Normale Superieure(France) from May 2013 to July 2013.
9. Olive Chakraborty; a 3rd year student of M.Sc.(Hons) Mathematics and a dual degree of B. E. (Hons) in Computer Science, presented a research paper titled "*Hybrid Modeling of Flat Rolling Process during Hot Rolling*" in an International conference at University of Oulu, Finland, during June 16-21, 2013.

#### I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION

Suresh Kumar; selected as Visiting Associate by Inter University Consortium for Astronomy and Astrophysics (IUCAA), Pune.

#### J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR

The department acquired 6 HP Compaq Elite desktops with i7 chips.

The department received Systat 13 software with 5 user license.

#### K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES

##### Mathematics Association

Mathematics Association conducted the following activities during 2013 :

1. Fast and Curious(quiz)
2. Gambling Mathematics
3. Magazine "To  $\infty$  and beyond"
4. Sudoku Competition

##### Events in apogee 2012

1. **APOGEE Projects:** The project MECHANICAL GRAPHER bagged the first prize in the category Simulation and Mathematical Modelling in Project Presentation Competition in APOGEE 2013. The team members were **Navneet Yadav, Kartik Goyal, Ambuj Mehra, Vishesh Gera, Rudraksh Shyal and Shekhar Suman..**
2. **APOGEE Paper Presentation:** "*The Incompleteness of Reason*", a mathematical paper with certain profound philosophical connotations, by **Subhayan Mukerjee**, won the first prize in Paper Presentation (Mathematics Category), APOGEE 2013.

**B1.10.10 Department: Mechanical Engineering**

Number of faculty members (as on 31 December 2013)

<b>Senior Professors, Professors</b>	3
<b>Associate Professors</b>	5
<b>Assistant Professors</b>	12
<b>Lecturers</b>	11
<b>Visiting Faculty</b>	2

**Head of the Department:** Prof. K. S. Sangwan

**Contact details:** kss@pilani.bits-pilani.ac.in

**Number of PhD Scholars:** 13

**Ph.D. Thesis Submitted during the year:** 05

**A. SPONSORED RESEARCH ACTIVITIES**

Total number of Sponsored Projects in the department:

Details are given below.

**(i) Ongoing projects:**

1. DAAD, Germany: Indo-German Automotive Life Cycle Engineering (InGA-LCE), 2013-14, 94423 € (Approximately 70 Lacs), Dr Kuldip Singh Sangwan, Prof Christoph Herrmenn and Dr K C Vora
2. DBT: MEMS based Bio-particle Separator, Rs. 40.5 Lacs, Prof. N. N. Sharma.
3. Department of Science and Technology (DST): Characterization of surface errors in machining of thin-walled curved geometries, Rs. 24.09 Lacs, Dr. T. C. Bera.
4. Department of Science and Technology (DST): Experimental Investigation on CO<sub>2</sub> Based Refrigeration System in Trans-critical Cycle, Rs. 27.5 Lacs, PI: Prof M. S. Dasgupta, Co-Investigator: Mr. D. K. Gupta.
5. Department of Science and Technology (DST): Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST), 2012-17, 165 Lacs, Dr K S Sangwan
6. Gas authority of India Limited (GAIL): Design and development of condition monitoring of pipelines using WSN, Rs.71.36 Lacs, 2012-2014, PI :Dr. K. R. Anupama (Goa campus), Co-PI: Dr. A K Jalan, Dr. Sharad Shrivastava.
7. Ministry of Information and Technology, (MIT): Development, Design and Engineering of 28-DOF Humanoid to avoid obstacles and handle specified objects in the environment, 2012-2014, 45 Lacs, Dr. B. K. Rout.
8. NPMAS: NPMAS MEMS Design Center, Rs. 75 Lacs, Prof N. N. Sharma.
9. UGC Major Research Project: Design and Development of Test rig to understand the Dynamics of Nanorobots, Rs.9.37Lacs, 2012-2014,PI: Prof. N. N. Sharma, Co-Investigator: Mr. J. S. Rathore.
10. UGC Major Research Project: Development and Validation of Sustainability Measurement Framework for Manufacturing Industries, Rs.3.22 Lacs, Dr. A. K. Dugalwar
11. UGC Major Research Project: Development of drivers, barriers and key performance indicators for implementation of green manufacturing in Indian Micro, small and medium ceramic enterprises, Rs. 9.908 Lacs, PI: Prof. K. S. Sangwan, Co-Investigator: Mr. V. K. Mittal.
12. UGC Major Research Project: Implementation framework for Indian Manufacturing Industry, Rs. 9.40 Lacs, Prof. Srikant Routroy.



**(ii) Projects sanctioned during the year**

1. DAAD, Germany: Indo-German Automotive Life Cycle Engineering (InGA-LCE), 2013-14, 94423 € (Approximately 70 Lacs), Dr Kuldeep Singh Sangwan and Prof Christoph Herrmenn
2. UGC Major Research Project: Development and Validation of Sustainability Measurement Framework for Manufacturing Industries, Rs.3.22 Lacs, Dr. A. K. Digalwar
3. UGC Major Research Project: Development of drivers, barriers and key performance indicators for implementation of green manufacturing in Indian Micro, small and medium ceramic enterprises, Rs. 9.908 Lacs, PI: Prof. K. S. Sangwan, Co-Investigator: Mr. V. K. Mittal.
4. UGC Major Research Project: Implementation framework for Indian Manufacturing Industry, Rs. 9.40 Lacs, Prof. Srikant Routroy.
5. Department of Science and Technology (DST): Characterization of surface errors in machining of thin-walled curved geometries, Rs. 24.09 Lacs, Dr. T. C. Bera.
6. Department of Science and Technology (DST): Experimental Investigation on CO<sub>2</sub> Based Refrigeration System in Trans-critical Cycle, Rs. 27.5 Lacs, PI: Prof M. S. Dasgupta, Co-Investigator: Mr. D. K. Gupta.
7. UGC Start-up Grant : An Integrated Approach Towards Developing Surface Engineered Biofibre Reinforced Hybrid Composites, Rs. 6.0 Lacs, Dr. S. B. Ghosh

**(iii) Projects completed this year**

1. Aditya Birla STCL: Carbon nanotube from carbon black, Rs. 10 Lacs, Prof N. N. Sharma.

**B. PUBLICATIONS**

**The faculty of the department published 27 papers in international/national refereed journals during the year.**

1. A. K. Digalwar, A. R. Tagalpallewar and V.K Sunnapwar (2013), Green manufacturing performance measures: An empirical investigation from Indian manufacturing industry, *Measuring Business Excellence*, 17 (4) 59-75.
2. A. K. Digalwar, and R. Kukreja (2013), Value network mapping for productivity improvement: A case study, *The IUP Journal of Operations Management*, 12(4).
3. A. Javed, B. K. Rout, Tolerance range section of topologically optimized structure using combined array design of experiments approach, *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 227(9): 2023–2038.
4. A.K. Jalan and A R Mohanty (2013), Model based fault identification of unbalance and misalignment acting simultaneously in a rotor system, *Journal of Advances in Vibration Engineering*, 12(1): 23-32.
5. J. Rathore (2013), In Search of Materials for Artificial Flagella of Nanoswimmers, *Journal of Materials Science*, 48 (1): 240-250.
6. S. Routroy and S. K. Pradhan (2013), Evaluating the critical success factors of supplier development: A case study Benchmarking: An International Journal, 20 (3):322-341.
7. S. Routroy, P. K. Das and M. Dixit (2013), Development of Optimum Dynamic Pricing Model for Perishable Product in Different Demand Environments, *Journal of Indian Institution of Industrial Engineering (IIIE)*, 6 (7): 36-39.
8. S. Conjeti and B. K. Rout (2013), Strategy for Electromyography Based Diagnosis of Neuromuscular Diseases For Assistive Rehabilitation, *International Journal on Bioinformatics & Biosciences*, 3 (3): 25-39.
9. S. Routroy and S. K. Pradhan (2013), Analyzing the sourcing alternatives in an Indian manufacturing company, *Journal of Advances in Management Research*, 1, 22-44.
10. S. Belgamwar, N. N. Sharma (2013), Synergistic electro-co-deposition and molecular mixing for reinforcement of multi-walled carbon nanotube in copper, *Material Science and Engineering-B*, 178, (20): 1452-1457.
11. S. Routroy and C V Sunil Kumar (2013), Analyzing the Product Substitution Approach in a Two-Stage Supply Chain, *The IUP Journal of Supply Chain Management*, 10 ( 2).

12. J. Rathore (2013), Tapered Flagellated Nanoswimmer: Comparison of Helical Wave and Planar Wave Propulsion, *BioNanoScience*, 3 (4) 343-347.
13. M Dwivedy and R K Mittal (2013), Willingness of residents to participate in e-waste recycling in India, *Environmental Development*, 6 : 48-68.
14. A. Jindal and K. S. Sangwan (2013) ,Development of an Interpretive Structural Model of Drivers for Reverse Logistics Implementation in Indian Industry, *International Journal of Business Performance and Supply Chain Management*, 15 (4): 325-342.
15. G. Kant, K. S. Sangwan, A. Deshpande, P. Sharma (2013), Modeling of Stresses and Temperature in Turning Using Finite Element Method, *Applied Mechanics and Materials*, 307:174-177.
16. J P Bhamu, A. Khandelwal and K. S. Sangwan (2013), Lean manufacturing implementation in an automated production line: a case study *International Journal of Services and Operations Management*, 15(4):411-429.
17. K. S. Sangwan and A. Jindal (2013), An integrated fuzzy multi-criteria evaluation of lithium ion battery recycling processes, *International Journal of Sustainable Manufacturing*, 6 (4): 359-371.
18. K. S. Sangwan (2013) , Evaluation of manufacturing systems based on environmental aspects using a multi criteria decision model, *International Journal of Industrial and Systems Engineering*, 14 (1) :40-57.
19. N. Khanna and K. S. Sangwan (2013), Comparative machinability study on Ti54M titanium alloy in different heat treatment conditions, *Journal of Engineering Manufacture*, 227(1): 96-101.
20. N. Khanna and K. S. Sangwan (2013), Interrupted machining analysis for Ti6Al4V and Ti5553 titanium alloys using physical vapor deposition (PVD)-coated carbide inserts *Journal of Engineering Manufacture*, 227 (3): 465-470.
21. N. Khanna and K. S. Sangwan (2013), Machinability Analysis of Heat Treated Ti64, Ti54M and Ti10.2.3 Titanium Alloys, *International Journal of Precision Engineering and Manufacture*, 14 (5): 719-724.
22. N. Khanna and K. S. Sangwan (2013), Machinability study of  $\alpha/\beta$  and  $\beta$  titanium alloy in different heat treatment conditions, *Journal of Engineering Manufacture*, 227 (3): 357-361.
23. P J Singh, V. K. Mittal and K. S. Sangwan (2013), Development and Validation of Performance Measures for Environmentally Conscious Manufacturing, *International Journal of Services and Operations Management*, 14 (2): 197-220.
24. V. Rao, G. Kant, K. S. Sangwan (2013), Predictive Modeling of Turning Operations Using Response Surface Methodology, *Applied Mechanics and Materials*, 307: 170-173.
25. V. K. Mittal and K. S. Sangwan (2013), Assessment of hierarchy and inter-relationships of barriers to Environmentally Conscious Manufacturing Adoption, *World Journal of Science, Technology and Sustainable Development*, 10 (4) : 297-307.
26. V. K. Mittal, P. Egede, C. Herrmann and K. S. Sangwan (2013), Comparison of Drivers and Barriers to Green Manufacturing: A Case of India and Germany, *Re-engineering, Manufacturing for Sustainability*, eds Springer, Singapore, 723-728.
27. V. Bhakar, V. Vamsi, K. Uppala, A. K. Digalwar and K. S. Sangwan (2013), Life Cycle Assessment of Smithy Training Processes, *Procedia Engineering*, 64, 1267-1275.

**The faculty of the department published 27 papers in conference proceedings during the year.**

1. A. K. Digalwar and Ravi Kiran (2013), Development of Fuzzy AHP model for Evaluation of Aggregate Risk in Green Manufacturing, 2nd IIIE conference on Industrial Engineering, Nov. 20-22, 2013, SVNIT Surat 233-239.
2. A. K. Digalwar, A. Borade and B. A. Metri (2013), The Fuzzy AHP approach for Supplier Selection, 7th ISDSI and 5th OSCMIMI New Delhi, ISDSI 187.
3. A. Javed, J. M. Rao, J. C. Sasi (2013), Simulation of Performance-Reliability for Indigenously Developed Manipulator , *Proceedings of National Conference on Advances in Manufacturing*

- Technology, National Institute of Technical Teachers' Training and Research, Chandigarh, India, 299-301.
4. A.K. Digalwar and K. V .Lakshminarayana (2013), Rain water harvesting system for sustainable industrial water use, National conference on Sustainable Water Resources Planning, Management and Impact of Climate Change BITS Pilani-Hyderabad Campus, 51.
  5. A.K. Digalwar and P. Date (2013), Selection of pattern material for casting operation using fuzzy PROMETHEE, International Conference on Advanced Engineering Optimization Through Intelligent Techniques, July 1-3, 2013, SVNIT Surat, 238-242.
  6. A.K. Digalwar and S. Wankhede (2013), Analysis of sustainability practices of Indian manufacturing industries: A MCDM approach, International Conference on Advances in Mechanical Engineering, May 29-31, 2013, COEP Pune, Maharashtra, India, ICAME2013 S15/P6.
  7. D. K. Gupta, M. S. Dasgupta (2013), Simulation and performance evaluation of air-cooled finned-tube gas cooler for trans-critical carbon dioxide refrigeration system in Indian context, 2nd IIR International Conference on Sustainability and the Cold Chain, Paris France, ICC2013-S3:3-30.
  8. M. .S Soni, M. Padmini (2013), Concentrating Solar Photovoltaic, 4th International Conference on Advances in Energy Research (ICAER), 2013 Indian Institute of Technology Bombay, 084:376-384.
  9. N. Khanna (2013), Machinability Analysis of Ti10.2.3 Titanium Alloy Using ANOVA, NAMRI/SME Madison, Wisconsin, USA, 41, NAMRC 41-1602.
  10. N. Khanna, K. S. Sangwan (2013),Machinability analysis of Ti6Al4V titanium alloy,3rd International Conference on Production and Industrial Engineering, NIT Jalandhar, India 935.
  11. N. Gakkhar, M S Soni (2013), Techno-Economic Parametric Assessment of CSP Power Generations Technologies in India, 4th International Conference on Advances in Energy Research (ICAER), Indian Institute of Technology Bombay, 095:434-440.
  12. R. P. Mishra (2013), Responding to a JIT Implementing customer's decreased batch quantity by reduction of the ordering costs: A supplier's prerogative, International Conference on Management and Business Innovation, MNIT Jaipur.
  13. R. P. Mishra (2013), Classification based Reliability Growth prediction on data generated by multiple independent processes, International Conference on Managing the Asian Century, JCU, Singapore,429-440
  14. R. P. Mishra (2013), JIT Implementation in Global Business, National seminar on Advanced Technologies in Mining and Beneficiation of base metals, IIM Khetri, 69-72.
  15. R Shankar, R. Kumar, S. V. Bhandge, S. B. Shradhe, N. Srinivas, A. Javed (2013), Dynamic modeling of multi motioned hexapode, Proceedings of International Conference on Computer Aided Engineering , IIT Madras, Chennai, India,1SS.
  16. S. K. Dubey and P. Srinivasan (2013), Transient heat conduction model and its application to billet transport simulation with oxide scale, Proceedings of the 22nd National and 11th International ISHMT- ASME Heat and Mass Transfer Conference, IIT Kharagpur, India, HMT1300139.
  17. S. Dambhare, S. Deshmukh, A. K. Digalwar, and A. Borade (2013), Sustainability Assessment Model for Machining Process, 7th ISDSI and 5th OSCM, IMI New Delhi, ISDSI 216.
  18. T. C. Bera (2013), An approach to error reduction in milling of thin-walled components, International Conference on Advanced Manufacturing and Automation, Tamilnadu, India, MS108.
  19. T. C. Bera (2013), Improvement of Surface Accuracy in Milling of Thin-Walled Straight Geometries, International Conference on Mechanical, Automotive and Aerospace Engineering, Kuala Lumpur, Malaysia, 30137.
  20. T. Bhargav, S. Aggarwal, S. K. Das, A. Javed (2013), Design of a simplified four legged walker, Proceedings of International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Punjab Technical University Kapurthala Punjab India, 48-52.

21. V. Bhakar, A. K. Digalwar and K. S. Sangwan (2013), Development of organizational and technological performance measures for sustainable manufacturing, International Conference on Management and Business Innovation, May 17-18, 2013, MNIT Jaipur, 1-4.
22. Jindal, A. and Sangwan, K. S., 2013. An Integrated Fuzzy Multi-Criteria Evaluation of Sustainable Reverse Logistics Network Models IEEE International Conference on Fuzzy Systems. Hyderabad (available online in IEEE explore)
23. Vikrant Bhakar, Anupam Purwar, Avinash Nayak, Krishna kumar Jakob Singer, Patricia Edege, Christoph Herrmann, Kuldip Singh Sangwan, Life Cycle Assessment of Lathe Processes for training application, In: Proc. of International Conference on Management and Business Innovation, MNIT Jaipur, pp 9-13, 2013
24. Vikrant Bhakar, Roshni Shah, Jakob Singer, Patricia Edege, Christoph Herrmann, Kuldip Singh Sangwan, Environmental Life Cycle Assessment of Carpentry Training Processes, In: Proc. Of 3rd International Conference on Production and Industrial Engineering, MNIT Jalandhar, p 48-53, 2013
25. Girish kant, Vaibhav Rao, K.S Sangwan, Development of Predictive Models for Forces in Machining using Regression Analysis, Response surface Methodology, Artificial Neural Network and Support vector regression, In: Proc. Of 3rd International Conference on Production and Industrial Engineering, MNIT Jalandhar, p 130-139, 2013
26. Girish Kant, Nalin Gupta, KS Sangwan, Measurement of tool chip interface temperature in machining: A Comprehensive Review, In: Proc. Of 3rd International Conference on Production and Industrial Engineering, MNIT Jalandhar, p 869-881, 2013
27. S. B Ghosh, S. Bandyopadhyay-Ghosh and M Sain (2013), Microstructural Development of Novel Polysaccharide derived Hybrid Biocomposite Foam and Evaluation of Cytotoxicity", 100th Indian Science Congress, Kolkata, India, January, 2013.

#### **C. CONFERENCES ATTENDED/PAPERS PRESENTED:**

1. D. K. Gupta presented paper in 2<sup>nd</sup> IIR International Conference on Sustainability and the Cold Chain, Paris France.
2. M. S. Soni presented paper in IV<sup>th</sup> International Conference on Advances in Energy Research, Mumbai, India, 10-12 December, 2013.
3. N. Khanna presented paper in 3<sup>rd</sup> International Conference on Production and Industrial Engineering, NIT Jalandhar, India.
4. P. Srinivasan presented paper in 22<sup>nd</sup> National and 11<sup>th</sup> International ISHMT- ASME Heat and Mass Transfer Conference, IIT Kharagpur, India, 27-31 December, 2013.
5. A. K. Digalwar presented paper in 2<sup>nd</sup> Nov. 2013 IIIE conference on Industrial Engineering, SVNIT Surat, 20-22
6. A. K. Digalwar presented paper in 7<sup>th</sup> 2013. ISDSI and 5<sup>th</sup> OSCM Conference at IMI New Delhi, 28-30 Dec.

#### **D. BOOKS PUBLISHED/EDITED DURING THE YEAR**

1. A .K. Digalwar, S. Shrivastava, A. K. Jalan, T. Sharma (2013), Laboratory Manual for Mechanical Engineering Laboratory, EDD, BITS Pilani.

#### **E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

1. Indo-German Workshop on Green Manufacturing on November 7, 2013.

**F. INVITED TALKS GIVEN BY BITS FACULTY**

1. A. K. Digalwar, Green Manufacturing Performance Measures: A Need" on 7th Nov 2013 in 2nd Indo-German Workshop on Green Manufacturing organized by Mechanical Engineering Department, BITS Pilani.
2. A. K. Digalwar, Lean Manufacturing - Waste Reduction for Manufacturing Excellence" on 25th June 2013 at JDIET Yavatmal (M.S.)
3. B. K. Rout, Design of Experiments, ANOVA, Factorial Designs and RSM ", TEQIP program at MNIT Jaipur, October 2013.
4. B.K. Rout, TEQIP –Sponsored Short term Training Program on Research Methodology" at MNIT Jaipur, October 2013.
5. M.S. Soni, Spiritual Thermodynamics, Mahindra and Mahindra Ltd. Nagpur, September 16, 2013
6. M.S. Soni, Spiritual Thermodynamics, Tolani Maritime Institute, Pune, December 13, 2013
7. P. Srinivasan, A short term course on Fracture mechanism, NTPC, Ramagundam, 6-7 February 2013.
8. P. Srinivasan, A short term course on Metallurgy of Power Plant Materials NTPC, Ramagundam, 4-5 February 2013.
9. S.K. Dubey, A short term course on Fracture mechanism, NTPC, Ramagundam, 6-7 February 2013.
10. S.K. Dubey, A short term course on Metallurgy of Power Plant Materials NTPC, Ramagundam, 4-5 February 2013.
11. K. S. Sangwan, Writing a research paper: a process approach, Workshop on research methodology, Vivekananda Global University, Jaipur, December 19, 2013.
12. K. S. Sangwan, Lean management and green management, Orientation Programme at Academic Staff College, Guru Jambheshwar University of Science & Technology, Hisar, May 3, 2013
13. K. S. Sangwan, Research Issues in Lean and Green Manufacturing, Keynote address at International Conference on Manufacturing Excellence, JJTU Jhunjhunu, 28th Jan 2013.
14. Srikanta Routroy, Structure and Contents of a Research Paper and Thesis, workshop for PhD Research Scholars, Vivekananda Global University, Jaipur, December 19, 2013.
15. Dr. Navneet Khanna, delivered an invited talk on "Research and Spirituality" during Talk Session at BKBIET Pilani on September 28, 2013.

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT: Nil****H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. A. K. Digalwar appointed as secretary General of Indian subcontinents Decision Sciences Institute (ISDSI) USA for two years 2012-13.
2. A. K. Digalwar Chaired one Technical Session in 2nd International Conference on Industrial Engineering (ICIE-2013) held at SVNIT Surat during 20-22 Nov 2013.
3. A. K. Digalwar Chaired two technical sessions in 7th ISDSI and 5th OSCM International Conference held at IMI New Delhi during 28th-30th December 2013.
4. M. S. Soni has been appointed as Committee member, Asian Conference on Civil, Material and Environmental Sciences, Osaka, Japan 7-9 November 2013,
5. K. S Sangwan, Scientific Committee member of 20<sup>th</sup> CIRP International Conference on Life Cycle Engineering held at Singapore, 2013.
6. K. S Sangwan, Chaired a session during 20<sup>th</sup> CIRP International Conference on Life Cycle Engineering held at Singapore, 2013.
7. A. K. Digalwar worked as a Organizing Committee member of 7<sup>th</sup> at IMI New Delhi
8. S. Bandyopadhyay-Ghosh has been appointed as the Editorial Board member of the journal 'Microscopy Research', March, 2013.
9. S. Bandyopadhyay-Ghosh has been appointed as the Editorial Board member of the journal 'Advances in Biomedical Engineering Research', August, 2013.

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION:**

**J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

- (i) Automation and Mechatronics lab established with the FESTO pneumatic Industrial trainer and simulation softwares worth rupees 12 lakh
- (ii) Industrial manipulator (robot) with vision system and robot studio (simulation software) worth rupees 23 lakhs
- (iii) Solidworks education edition software worth 11.5 lakh rupees added to teach mechanical design and drawing course
- (iv) Single screw extruder with three roll calendaring facility worth rupees 5.0 lakhs

**K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES**

**(i) Society of Automotive (SAE) Collegiate Club**

Society of Automotive Engineers (SAE) BAJA annual competition was held during 13-17 February 2013 at National Automotive Test Tracks, Pithampur, Indore. 220 teams from colleges all over India including IITs participated in this all terrain vehicle design, fabrication and racing event. During virtual BAJA competition, held in Bangalore, 100 teams were eliminated and finally 120 teams participated at Pithampur. A team of 25 students from various disciplines designed and fabricated the all terrain vehicle at BITS Pilani, Pilani campus workshop under the guidance of Prof. K. S. Sangwan and with the sponsorships from BITSAA, Sona Koyo, Briggs and Stratton, and Harold industries. BITS Pilani team won the first prize in static design evaluation done by the experts from all over the world. The four wheel steering, paddle gear shifters and engine vibration isolation technique were some of the innovative design elements greatly appreciated by the experts.

**(ii) RC**

Radio Control (RC) club was founded in 2011 and aims to bring together all the RC enthusiasts from all the four BITS campuses, share knowledge & research work and also work on various multi-disciplinary projects. The club comprised of students mainly from Mechanical, Manufacturing, Electrical and Electronics & Electronics & Instrumentation Engineering discipline. The club has organized micro-controller workshop, aero workshop, and glider workshop and also has given presentation on use of RC Vehicles for Disaster Management. Aero-modeling Workshop organized in October 2012, in collaboration with Aerodynamics Club, BITS Goa was unique attempt at promoting cross campus activities. Club members have actively participated in APOGEE and won prizes in various events like battle-at-waterloo, FTGP, up in the air, DMVC etc. Currently club members are developing sophisticated automated quad-copters to come up with low cost UAV system that has various military as well as disaster management applications.

**(iii) Team AcYut**

Team AcYut represented BITS Pilani at the International Robocup-2013, Netherlands secured 4<sup>th</sup> place, one of 3 teams to score a goal autonomously at Robocup2013. The team secured 2ndPlace at Robo cup Open 2013 Tehran. Demonstration of the humanoid robot in Bhabha Atomic Research Centre-2013

**(iv) Renewable Energy Club**

The Renewable Energy Club is an exclusively a student managed body that operates under CREED. The Club has undertaken active work in organizing competitions, quizzes, carbon footprint analysis and carbon credits. Commercial organizations in these areas have evolved out of this club, and are currently owned and operated by BITS alumni.

**(v) American Society of Mechanical Engineers (ASME)**

ASME submitted a total of 25 projects in various categories during Apogee 2013. The project 'Human Powered Kitchen Appliances' won the first prize in the category 'Industrial Processes and Applications'. Three events namely 'Water Rocketry', 'Airborne' and 'Troubleshooter' were also conducted as part of Apogee 2013, out of which 'Airborne' was a kernel event. The event 'Troubleshooter' was graciously sponsored by Altair India. The ASME team designed and fabricated an autonomous robot which participated in Robocon, a competition held at MIT, Pune during March of 2013. Team BITS designed and fabricated an aerodynamic, gasoline powered vehicle aimed at maximizing its fuel efficiency as part of the Shell Eco Marathon. The event was scheduled to be held at the Sepang International Circuit, Malaysia. But due to unforeseen natural calamities, the event was called off. As part of the Human Powered Vehicle Challenge 2014, Team BITS also designed and fabricated a recumbent bicycle (mid racer). The team successfully participated in the event held at Indian Institute of Technology (IIT), Delhi. ASME was also involved in promoting engineering, especially mechanical engineering as a profession among women and the rural population to ensure greater diversity. As part of the project titled Shilpangana 2014, a survey was conducted among students of classes 9th to 12th, which revealed that lack of awareness and archaic norms of the society were the major hurdles that deter the underrepresented sections of the society from pursuing careers in engineering. Shilpangana targets these problems by conducting events, activities, hands-on-sessions and quizzes at various schools in and around Pilani. The project received a grant of \$1000 under the Diversity Action Grant program of ASME. BITS Pilani will be hosting Student Professional Development Conference Asia-Pacific, 2014, an annual event of ASME. The conference includes certain prestigious events such as Student Design Challenge, Old Guard Oral Presentation, Old Guard Technical Poster Presentation and Old Guard Technical Web Page Presentation with total prize money of \$2000. The winners are invited to the International Mechanical Engineers Conference (IMECE), held at Canada. The conference also includes Student leadership seminars, various guest lectures and also several spot design events. Various year round activities were conducted during 2013. Some of them include a mini design event called "Egg-cap" conducted in August 2013. A workshop on obstacle avoiding robot was organized in October and was attended by over 300 students. A CATIA workshop was also organized during November 2013.

**B1.10.11 Department: Management**

Eighth batch of fifty students was admitted to the M.B.A programme (launched from 1<sup>st</sup> sem.2006) this year. The institute had taken the decision to switch to CAT 2012 (conducted by IIM Authorities) scores for short-listing candidates for its MBA Programme for 2013. The Management department coordinated with the Admission Division to execute this decision. The group discussion and personal interviews for the candidates were conducted by the faculty teams of Management Department at Delhi, Hyderabad, Bangalore and Pilani.

**Student activities**

Management association organized year-long activities through its clubs structured along four important functional areas of management viz. Marketing, Human Resource Management, Finance and Operations Management along with **Interface 2013**.

**Interface 2013**

36<sup>th</sup> Annual Management Convention Interface 2013 was conducted by the students of Department of Management of BITS – Pilani. The theme of the event was BIZ 360 Degrees. The event was for duration of 3 days from 1st February – 3rd February, 2013. Various elite B-Schools marked their presence during Interface 2013 viz. IIM Lucknow, MDI Gurgaon, IMT Ghaziabad, SCM HRD Pune, IFMR (Institute for Financial Mgmt & Research), LBSIM New Delhi, IIT Bombay, FMS Delhi, Department, IIMA, IIT Roorkee, IIFT, XLRI, MICA, DSE-MIB etc. An active participation was seen from the on – campus students of BITS Pilani as well. The Chief Guest for the inaugural function was Mr. Rajesh Tambe a fundamental analyst based in Mumbai. Mr. Tambe has done a lot of shows on Radio Channel 104.8 owned by India Today and also regularly for news channels CNEB, UTV Bloomberg, NDTV Profit & Zee Business. Various events showcased this year were:- The Renaissance: Marketing Plan competition; Budget Mogul; Bulls and Bears; Investment King; NIDAAN; Case Study Competition; 4P - Show me the Money; Rek Root - Market the brand Employer; Stop Think Format Upgrade. The winners of the each event were various prizes and certificates. This year the main highlights were guest lectures, media conference and the Rock Night (by Megh-the Band). Interface-2013 partnered with exchange4media group and conducted a very well received

Media Conference. Ahwaan an entirely youth run non-profit organization working in the broad area of child rights and women upliftment held a theatre workshop during INTERFACE-2013 to help amateurs to explore the actor in them.

#### **Faculty activities**

The decision to use CAT 2012 (conducted by IIM Authorities) scores for short-listing candidates for its MBA Programme for 2013 was implemented. The group discussion and personal interviews for the candidates were conducted by the faculty teams of Management Department at Delhi, Hyderabad, Bangalore and Pilani. Also as part of the process of streamlining of offering of electives, the department finalized offerings in two more functional areas viz. Finance and Marketing.

Eleven guest lectures, six of them on-campus and five on-line were arranged for the students besides a couple of workshops. Several projects in various functional areas of management were supervised by the Department faculty members under special oriented projects, study oriented projects, and computer oriented projects, reading courses and first degree thesis. Regular faculty and research scholar seminars were conducted in the department. The Department faculty members continued to teach many courses in WILP Programs of the institute including contact sessions of M Phil. (HSM). Faculty and research scholars prolifically published papers in international journals, national journals and in conference proceedings (a total of thirty nine in all) as well as a few have submitted proposals for projects to the sponsoring organizations.

#### **B1.10.12 Department: Pharmacy**

Number of faculty members (as on 31 December 2013)

<b>Senior Professors, Professors</b>	03
<b>Associate Professors</b>	01
<b>Assistant Professors</b>	05
<b>Lecturers</b>	08
<b>Visiting Faculty</b>	00

**Head of the Department:** Prof. Hemant R. Jadhav

**Contact details:** hemantrj@pilani.bits-pilani.ac.in

**Number of PhD Scholars:** 22

**Number of PhD Scholars being supported through Projects and External Funding:** 19

**Number of First Degree and Higher Degree Students being Supported by Sir Ratan Tata Trust:** 14

**Ph.D. Thesis Submitted during the year:** 03

#### **A. SPONSORED RESEARCH ACTIVITIES**

##### **(i) Ongoing projects:**

<b>S.No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
1.	Design of Nasal Drug Delivery Systems for CNS Targeting	Prof. R.N. Saha	Torrent Research Centre, Ahmedabad	20.00
2.	Studies of Carbopols Use for Controlled Release and Other Uses by Extrusion and Spheronization Techniques	Prof. R.N. Saha	Lubrizol, USA	12.00



S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
3.	Design of Modified Release Multi-Unit Particulate Delivery Systems for Fixed-Dose Combination of Artesunate and Amodiaquine for Paediatrics	Dr. Shrikant Charde	UGC Major	10.25
4.	Pharmaceutical Application Studies of Polymers Manufactured by BASF	Dr. Shrikant Charde	BASF	2.00
5.	Studies on Cell Lines as Model for Predicting In Vitro Buccal Permeation of Various Classes of Drugs and its Co-relation with In Vivo Data	Dr. Shrikant Charde	DST-SERB	27.60
6.	Design, Synthesis and Study of Novel Benzopiperidine analogs as HIV-1 Reverse Transcriptase Inhibitors	Dr. S. Murugesan	BITS, Pilani	2.00
7.	Exploring neuroprotective effect and molecular mechanisms of remote limb ischemic post conditioning against brain stroke	Dr. Rajeev Taliyan	DST-SERB	25.00
8.	Exploring pharmacological potential of GSK-3 $\beta$ and HDAC inhibitor alone and in combination in neurological disorders associated with metabolic syndrome	Dr. Rajeev Taliyan	UGC-strat up	6.00
9.	Possible mechanism of attenuation of the cardioprotective and neuroprotective effect of Ischemic preconditioning diabetic and hyperlipidemic rats.	Dr. Rajeev Taliyan	BITS Pilani	2.00
10.	Understanding the Epigenetic Regulation in modulating Inflammatory Response mediated by NF-kB through AT1 or AT2 receptor in Type II diabetic nephropathy	Dr. Gaikwad Anil Bhanudas	DST SERB	19.41
11.	Esculetin a Therapeutic Intervention Targeted at Cardio-Renal Syndrome in Type 2 Diabetes	Dr. Gaikwad Anil Bhanudas	DST SERB	39.66
12.	Effect of Esculetin on Angiotensin II in rat thoracic aorta under hyperglycaemic and hyperinsulinaemic conditions	Dr. Gaikwad Anil Bhanudas	UGC-Major	13.43
13.	Effect of Esculetin on the development of type II diabetic nephropathy	Dr. Gaikwad Anil Bhanudas	BITS Pilani	2.00
14.	Development of ecofriendly nonionic surfactants coupled ultrasonic extraction technology for conophylline, an antidiabetic lead molecule and its comparison with conventional extraction techniques	Dr. Paul Atish Tulshiram	BITS Pilani	2.00
15.	Design and characterization of novel buccal drug delivery system of felodipine	Mr. Murali Pandey	UGC-Minor	1.70
16.	Neuropharmacological investigation of novel quinoxaline carboxamide novel serotonergic modulation for their antidepressant and anxiolytic activity	Mr. Shvetank Bhatt	UGC-Minor	2.00
17.	Studies on design and characterization of multi-unit controlled release dosage formulations of milnacipran hydrochloride, in vitro release mechanism and in vivo pharmacokinetic parameters in animals	Mr. Gautam Singhavi	UGC-Minor	1.40
18.	Design, synthesis and evaluation of novel beta secretase inhibitors for the treatment of Alzheimer's disease.	Ms. Priti Jain	UGC-Minor	2.00

**Brief Write Up of Projects:*****Design of Nasal Drug Delivery Systems for CNS Targetting***

Suitable analytical and bio-analytical methods have been developed for dopamine and one more drug coded as NDD009, both CNS active drugs. In situ and in vivo nasal absorption model has been developed in rat. Nasal absorption of has been studied and good absorption has been found. Further, formulations of both the drugs have been made stability study and for nasal absorption.

***Studies of Carbopols Use for Controlled Release and Other Uses by Extrusion and Spheronization Techniques***

Carbopols, important pharmaceutical excipients, are brand products of Lubrizol USA and are used for different purposes for making formulations or drug delivery systems. Different carbopols have been selected and used, alongwith other excipients for making granules by extrusion and spheronization techniques. Other excipients used are MCC, starch, etc. Optimization of process parameters are going on. Also analytical methods, both UV spectrophotometric and HPLC, of selected drugs have been developed.

***Design of Modified Release Multi-Unit Particulate Delivery Systems for Fixed-Dose Combination of Artesunate and Amodiaquine for Pediatrics***

Artesunate and Amodiaquine are used in the treatment of malaria, both the drugs are administered orally as fixed-dose combination tablets for better therapeutic efficacy. The research project aims at developing Modified release multi-unit particulate delivery systems (MUPS), this proposed formulation may exhibit an advantage of dose titration in pediatrics and also improved drug stability. Analytical methods have been developed for both the drugs and preformulation studies have been completed. Formulations for both the drugs have been optimized and in vivo studies are being planned.

***Pharmaceutical Application Studies of Polymers Manufactured by BASF***

This is an industry sponsored project. Various pharmaceutical applications of polymers manufactured by BASF has been undertaken. They are being evaluated for application in buccal, nasal and nano-particulate drug delivery systems.

***Studies on Cell Lines as Model for Predicting In Vitro Buccal Permeation of Various Classes of Drugs and its Co-relation with In Vivo Data***

The project investigates the co-relation between the in vitro permeation data obtained using developed cell culture model and in vivo buccal permeation data obtained using rabbit as an animal model. The final objective being usage for cell lines for predicting buccal permeation of drugs. Three classes of drugs will be studied in this project. Method development for analysis of drugs have been initiated and equipment and instruments are being purchased.

***Exploring neuroprotective effect and molecular mechanisms of remote limb ischemic post-conditioning against brain stroke***

Stroke is recognized as a leading cause of morbidity and represents a major health care problem and the second leading cause of death worldwide. In 2005, stroke accounted for nearly 5.7 million deaths and 16 million cases of first ever strokes worldwide. The ongoing socio-demographic and epidemiological transition in India has a key influence on the burden of stroke and the problem is likely to increase in the coming years. Tissue plasminogen activator (tPA) and platelet aggregation inhibitor is the only approved treatment for stroke, but its beneficial thrombolytic actions are counterbalanced by the limited window of efficacy following the onset of symptoms and its neurotoxicity. Owing to the failure of clinical trials for pharmacological neuroprotective strategies in stroke, attention of researchers has been recently focused for exploration of novel concepts that may eventually lead to clinical application. One of these concepts is ischemic postconditioning (IPost), which refers to interference of blood flow by a series of brief, repetitive occlusion and release of cerebral blood vessels after reperfusion. IPost can even be produced via a remote organ, such as limbs, kidney and abdominal aorta; a phenomenon termed as remote ischemic post-conditioning (RIPost) that reduce myocardial injury in rats. Therefore, this study has been designed to investigate the neuroprotective effect of remote limb and abdominal ischemic post-conditioning against brain stroke and its possible molecular mechanisms.

***Exploring pharmacological potential of GSK-3  $\beta$  and HDAC inhibitor alone and in combination in neurological disorders associated with metabolic syndrome***

Insulin resistance or hyperinsulinemia as well as type II diabetes mellitus and metabolic disorder are among the risk factors for various neurodegenerative disorder including depression, memory deficit and Alzheimer's disease (AD). Several studies have shown that both insulin and its target, insulin receptors (IR), are abundantly distributed throughout the brain and are involved in the regulation of glucose metabolism, food

intake, body weight and also affects numerous brain functions including cognition and memory through complex insulin/IR signaling pathway. Several studies indicate that in memory deficit and AD, with or without co-morbid depression, the brain itself becomes insulin resistant and that this promotes or even triggers key pathophysiological events involved in genesis of neurological disorders. However, the molecular mechanism underlying the mirror relationship between insulin resistance, metabolic syndrome and neurological disorders is not fully understood. GSK-3 $\beta$  and its downstream pathway are of particular relevance to memory deficit and AD since it phosphorylates APP at Thr668, as well as Tau and Presenilin1, inducing amyloid plaques and neurofibrillary tangles formation and promoting neuro-inflammation. Increasing evidence suggests that HDAC and A $\beta$  induces hyperphosphorylation of tau through the activation of GSK-3 $\beta$ . Therefore, this study has been designed to investigate the pharmacological potential of GSK-3 $\beta$  and HDAC inhibitors, alone and in combination, in depression, memory deficits and AD associated with insulin resistance syndrome.

***Possible mechanism of attenuation of the cardioprotective and neuroprotective effect of Ischemic preconditioning diabetic and hyperlipidemic rats***

Metabolic syndrome is characterized as a combination of cardio-metabolic risk determinants including insulin resistance and dyslipidemia and is associated with a significantly increased brain dysfunction. Reperfusion induced reactive oxygen or nitrogen species (ROS or RNS), including superoxide radicals, hydrogen peroxide, hydroxyl radicals, singlet oxygen, nitric oxide, and peroxynitrite play major contribution to myocardial I/R injury. However, brief episodes of ischemia followed by reperfusion of myocardium increase the resistance against sustained ischemia of longer duration; this phenomenon is termed as ischemic preconditioning (IPC). IPC has shown cardioprotective and neuroprotective effect in various preclinical and clinical studies. However, some studies reported that the protective effect was abolished in heart failure, obesity and diabetes mellitus (DM). The exact nature of effect and mechanism involved of this endogenous protective phenomenon in insulin resistance, diabetic and obese rat associated with cognitive dysfunction, is still unknown.

***Understanding the Epigenetic Regulation in modulating Inflammatory Response mediated by NF- $\kappa$ B through AT1 or AT2 receptor in Type II diabetic nephropathy***

Covalent modifications of histone residues determine chromatin structure dynamics and transcription factor accessibility, i.e. epigenetic control of chromatin replication and gene transcription. For example, transcriptional activity of calmodulin-binding transcription activator (CAMTAs, promotes cardiomyocyte hypertrophy) is governed by association with class II histone deacetylases (HDACs), which negatively regulate cardiac growth. A recent study also reports the role of elevated acetylated histone in vascular injury and remodeling in type I diabetic patients. These reports imply the involvement of global epigenetic changes in the pathogenesis of the diabetic complications. Considering these facts in the proposed project we hypothesized that covalent modification of histone H3 may have an important role in chromatin remodeling in diabetic kidney and transcription of inflammatory genes. Different histone modifications will be studied in this kidney under diabetic complications.

***Esculetin a Therapeutic Intervention Targeted at Cardio-Renal Syndrome in Type 2 Diabetes***

Diabetic nephropathy is a result of several metabolic and hemodynamic processes. It is increasingly apparent that individuals with chronic kidney disease are more likely to die of cardiovascular disease than to develop kidney failure. Chronic kidney disease promotes hypertension and dyslipidemia, which in turn can contribute to the progression of renal failure. Together, hypertension, dyslipidemia, and diabetes are major risk factors for the development of endothelial dysfunction and progression of atherosclerosis. Inflammatory mediators are often elevated and the renin-angiotensin system is frequently activated in chronic kidney disease, which likely contributes through enhanced production of reactive oxygen species to the accelerated atherosclerosis observed in chronic kidney disease. Hence, in the proposed study natural product like esculetin, which has been recognized as inhibitors of lipoxygenase, cyclooxygenase enzymatic pathways and neutrophil-dependent superoxide anion generation will be used as a therapeutic intervention for cardio-renal syndrome in type 2 diabetes.

***Effect of Esculetin on Angiotensin II in rat thoracic aorta under hyperglycaemic and hyperinsulinaemic conditions***

Diabetes specific microvascular disease is a leading cause of blindness (retinopathy), renal failure (nephropathy) and nerve damage (neuropathy), and diabetes-accelerated atherosclerosis (vasculopathy) leads to increased risk of myocardial infarction, stroke and finally to heart failure. Outcome of the proposed study will result in the understanding of the vascular dysfunction under pre-diabetic condition and type 2 diabetic condition. Further, protective effects of esculetin in preventing the vascular dysfunction through its anti oxidant mechanism will be an addition to class of different antioxidant used for the treatment of hypertension. Hence, esculetin could be an alternative to for the treatment of hypertension which is associated with an pre-diabetic or type 2diabetic conditions.

***Effect of Esculetin on the development of type II diabetic nephropathy***

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***Development of ecofriendly nonionic surfactants coupled ultrasonic extraction technology for conophylline, an antidiabetic lead molecule and its comparison with conventional extraction techniques***

*Tabernaemontana divaricata* (L.) R. Br. ex Roem. & Schult. (Apocynaceae) is a evergreen plant, traditionally used for treatment of diabetes and cancer. It is a rich source of indole and bisindole class of alkaloids. Conophylline, a bisindole alkaloid and extract obtained from *T. divaricata* has been patented for its antidiabetic activity. Recently a total synthesis methodology has been published, emphasizing the importance of conophylline as a lead molecule in antidiabetic drug development. However there are no detailed studies till date on conophylline content, variation and ecofriendly extraction from *T. divaricata* found in India. Hence as a part of research interest on optimization of extraction and separation technologies of natural products of commercial importance, the current project will deal with development of nonionic surfactants coupled ultrasonic green extraction technology for conophylline from *T. divaricata* found in India

***Design, synthesis and evaluation of novel beta secretase inhibitors for the treatment of Alzheimer's disease***

In the above study, novel beta secretase inhibitors will be designed based upon the docking studies. These designed molecules will then be synthesized and characterized by appropriate conventional and novel methods as well as by spectral analysis respectively. Finally, these synthesized molecules will be screened for beta secretase inhibition as anti- alzheimer's agents.

***Neuropharmacological investigation of novel quinoxaline carboxamide novel serotonergic modulation for their antidepressant and anxiolytic activity***

The project involves the design of novel Serotonin type 3 (5-HT<sub>3</sub>) receptor antagonists by combining molecular modeling and traditional medicinal chemistry approach. Evaluation of the new chemical entities for the 5-HT<sub>3</sub> receptor antagonist activity and existing 5-HT<sub>3</sub> modulators for central nervous system disorders such as depression and anxiety

***Studies on design and characterization of multi-unit controlled release dosage formulations of milnacipran hydrochloride, in vitro release mechanism and in vivo pharmacokinetic parameters in animals***

Milnacipran (MIL) has been approved for treatment of depression and management of fibromyalgia. It is commercially available as an immediate release formulation in form of tablet and capsules. Its short elimination half life, frequent dosing and number of associated side effects cause lack of patient compliance in daily dosing and is liable to produce discontinuation problem. Therefore, it is planned to study of different techniques for preparation of oral modified/controlled release delivery system and effect of various process parameters and excipients on characters of drug release and design a good oral modified/controlled release formulation for MILNACIPRAN. But design of modified release delivery systems is not easy. It requires thorough knowledge of physicochemical properties, biopharmaceutical properties, and detailed therapeutic actions of the drug and polymers. Further several process parameters, excipients characters, nature of co-administered substances also influence characters and functions of delivery system. It is postulated that such drug delivery system will overcome the drawbacks of existing conventional formulations and provide desired outcomes.

***Design and characterization of novel buccal drug delivery system of felodipine***

Felodipine is a dihydroquinidine used in heart failure and angina pectoris. Its solubility is less and hence bioavailability is only 15%. In this work, a novel buccal formulation for felodipine will be designed. Various strategies like solid dispersions, nanoparticulate preparations, etc will be explored to enhance the rate and extent of dissolution of felodipine, which in turn would improve bioavailability of drug through buccal route.

**(ii) Projects sanctioned during the year**

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs.in Lakh)
1	Understanding the Epigenetic Regulation in modulating Inflammatory Response mediated by NF-kB through AT1 or AT2 receptor in Type II diabetic nephropathy	Dr. Gaikwad Anil Bhanudas	DST SERB	19.41
2	Esculetin a Therapeutic Intervention Targeted at Cardio-Renal Syndrome in Type 2 Diabetes	Dr. Gaikwad Anil Bhanudas	DST SERB	39.66
3	Effect of Esculetin on Angiotensin II in rat thoracic aorta under hyperglycaemic and hyperinsulinaemic conditions	Dr. Gaikwad Anil Bhanudas	UGC-Major	13.43
4	Effect of Esculetin on the development of type II diabetic nephropathy	Dr. Gaikwad Anil Bhanudas	BITS Pilani	2.00
5	Development of ecofriendly nonionic surfactants coupled ultrasonic extraction technology for conophylline, an antidiabetic lead molecule and its comparison with conventional extraction techniques	Dr. Paul Atish Tulshiram	BITS Pilani	2.00
6	Neuropharmacological investigation of novel quinoxaline carboxamide novel serotonergic modulation for their antidepressant and anxiolytic activity	Mr. Shvetank Bhatt	UGC-Minor	2.00
7	Studies on design and characterization of multi-unit controlled release dosage formulations of milnacipran hydrochloride, in vitro release mechanism and in vivo pharmacokinetic parameters in animals	Mr. Gautam Singhavi	UGC-Minor	1.40
8	Exploring neuroprotective effect and molecular mechanisms of remote limb ischemic post conditioning against brain stroke	Dr. Rajeev Taliyan	DST-SERB	25.00
9	Exploring pharmacological potential of GSK-3 $\beta$ and HDAC inhibitor alone and in combination in neurological disorders associated with metabolic syndrome	Dr. Rajeev Taliyan	UGC-strat up	6.00

#### Brief Write Up of Projects:

##### ***Understanding the Epigenetic Regulation in modulating Inflammatory Response mediated by NF-kB through AT1 or AT2 receptor in Type II diabetic nephropathy***

Covalent modifications of histone residues determine chromatin structure dynamics and transcription factor accessibility, i.e. epigenetic control of chromatin replication and gene transcription. For example, transcriptional activity of calmodulin-binding transcription activator (CAMTAs, promotes cardiomyocyte hypertrophy) is governed by association with class II histone deacetylases (HDACs), which negatively regulate cardiac growth. A recent study also reports the role of elevated acetylated histone in vascular injury and remodeling in type I diabetic patients. These reports imply the involvement of global epigenetic changes in the pathogenesis of the diabetic complications. Considering these facts in the proposed project we hypothesized that covalent modification of histone H3 may have an important role in chromatin remodeling in diabetic kidney and transcription of inflammatory genes. Different histone modifications will be studied in this kidney under diabetic complications.

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***Exploring neuroprotective effect and molecular mechanisms of remote limb ischemic post-conditioning against brain stroke***

Stroke is recognized as a leading cause of morbidity and represents a major health care problem and the second leading cause of death worldwide. In 2005, stroke accounted for nearly 5.7 million deaths and 16 million cases of first ever strokes worldwide. The ongoing socio-demographic and epidemiological transition in India has a key influence on the burden of stroke and the problem is likely to increase in the coming years. Tissue plasminogen activator (tPA) and platelet aggregation inhibitor is the only approved treatment for stroke, but its beneficial thrombolytic actions are counterbalanced by the limited window of efficacy following the onset of symptoms and its neurotoxicity. Owing to the failure of clinical trials for pharmacological neuroprotective strategies in stroke, attention of researchers has been recently focused for exploration of novel concepts that may eventually lead to clinical application. One of these concepts is ischemic postconditioning (IPost), which refers to interference of blood flow by a series of brief, repetitive occlusion and release of cerebral blood vessels after reperfusion. IPost can even be produced via a remote organ, such as limbs, kidney and abdominal aorta; a phenomenon termed as remote ischemic post-conditioning (RIPost) that reduce myocardial injury in rats. Therefore, this study has been designed to investigate the neuroprotective effect of remote limb and abdominal ischemic post-conditioning against brain stroke and its possible molecular mechanisms.

***Exploring pharmacological potential of GSK-3 $\beta$  and HDAC inhibitor alone and in combination in neurological disorders associated with metabolic syndrome***

Insulin resistance or hyperinsulinemia as well as type II diabetes mellitus and metabolic disorder are among the risk factors for various neurodegenerative disorder including depression, memory deficit and Alzheimer's disease (AD). Several studies have shown that both insulin and its target, insulin receptors (IR), are abundantly distributed throughout the brain and are involved in the regulation of glucose metabolism, food intake, body weight and also affects numerous brain functions including cognition and memory through complex insulin/IR signaling pathway. Several studies indicate that in memory deficit and AD, with or without co-morbid depression, the brain itself becomes insulin resistant and that this promotes or even triggers key pathophysiological events involved in genesis of neurological disorders. However, the molecular mechanism underlying the mirror relationship between insulin resistance, metabolic syndrome and neurological disorders is not fully understood. GSK-3 $\beta$  and its downstream pathway are of particular relevance to memory deficit and AD since it phosphorylates APP at Thr668, as well as Tau and Presenilin1, inducing amyloid plaques and neurofibrillary tangles formation and promoting neuro-inflammation. Increasing evidence suggests that HDAC and A $\beta$  induces hyperphosphorylation of tau through the activation of GSK-3 $\beta$ . Therefore, this study has been designed to investigate the pharmacological potential of GSK-3 $\beta$  and HDAC inhibitors, alone and in combination, in depression, memory deficits and AD associated with insulin resistance syndrome.

**(iii) Projects completed this year**

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. In Lakh)
1	Design and Synthesis of Novel Agents for the Management of Rheumatoid Arthritis	Prof. Hemant R Jadhav	UGC Major	8.35
2	Design and Synthesis of Novel Agents for the Treatment of Rheumatoid Arthritis	Prof. Hemant R Jadhav	SERB	19.03
3	Synthesis and pharmacological evaluation of novel phosphodiesterase- 4 inhibitors for their anti-depressant and anxiolytic potential	Prof. R.Mahesh	DBT	51.69
4	Design and synthesis of novel antimalarial agents Indo-Canadian DBT Project ( Indo-Canadian joint Research Project on Anti-Malarials	Prof. R.Mahesh	DBT	36.60
5	Development of analytical and bioanalytical	Mr. Sunil Kumar	UGC	1.80



S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. In Lakh)
	methods for racemic drugs by HPLC and HPTLC for pharmacokinetic studies	Dubey	Minor	

#### Brief Write Up of Projects:

##### ***Design and Synthesis of Novel Agents for the Management of Rheumatoid Arthritis***

Rheumatoid Arthritis (RA) is a complex auto-immune systemic disease, affected in 1-2% of the population. TNF- $\alpha$  along with IL-1 stimulates fibroblast proliferation and induces proinflammatory cytokines, adhesion molecules and destructive enzymes such as collagenase, causing bone destruction. TNF- $\alpha$  found in membrane bound form is converted to its soluble form by TNF- $\alpha$  converting enzyme (TACE). Uncontrolled release of soluble TNF- $\alpha$  is characteristic of rheumatoid arthritis (RA) and Crohn's disease. We are currently working on lead identification and optimization of TACE inhibitors, using structure based and ligand based approach.

##### ***Design and Synthesis of Novel Agents for the Treatment of Rheumatoid Arthritis***

Citrullination is a physiological process during inflammation and apoptosis, nearly 1% of population develops anticitrullinate peptide antibodies (ACPA) leading to immune reactions which is identified as one of the cause for RA. Citrullination reaction is carried out by a calcium- dependent enzyme Protein Arginine Deiminase 4 (PAD4). Currently we are involved in Design and synthesis of PAD4 inhibitors based on pharmacophore and molecular modeling, which will help in better understanding the the role of PAD4 in RA.

##### ***Design, Synthesis and Pharmacological Evaluation of Novel Phosphodiesterases-IV Inhibitors for their Anti-depressant and Anxiolytic Potential***

Currently, clinically existing anti-depressants and anxiolytics are unfortunately known for their toxicity rather than their efficacy eg: MAOIs, TCAs. Phosphodiesterases-IV inhibitor has been reported for their anti-depressant activity but have not advanced significantly in terms of therapeutic efficacy and hence an attempt has been made to exploit this target. Novel molecules will be designed on the basis of required pharmacophoric model and will be synthesized. The synthesized molecules will be screened for their anti-depressant and anxiolytic potentials.

##### ***Design and synthesis of novel anti malarial agents***

Malaria, being one of the dreaded infectious diseases in the world is prevalent in more than 90 countries, and about 40% of the world's population are at risk of malaria transmission. It is estimated that there are some 350–500 million cases resulting in over 1 million deaths each year. In the past two decades, the number of malaria cases has been growing steadily, mainly due to the development of drug resistance in the parasite, in particular Plasmodium falciparum. Thus, in many parts of the world, the parasite is now resistant against chloroquine, which was by far the most frequently used anti- malarial drug for half a century. Therefore, there is an increasing need to identify new targets and develop drugs aimed at these targets. Various potential biochemical targets have been proposed; among these, the cysteine protease falcipain-2 from P. falciparum is an attractive and most promising target enzyme, which plays a key role in haemoglobin degradation in throphozoites.

##### ***Development of analytical and bioanalytical methods for racemic drugs by HPLC and HPTLC for pharmacokinetic studies***

Analytical and Bioanalytical method for some racemic drugs have been developed. Validation of the method developed have been carried out. Pharmacokinetic studies of ketorolac and its enantiomers has been done. LCMS/MS method has been developed for the above drug.

#### (iv) Financial Support Sanctioned to Department

S.No.	Scheme	Agency	Sanction (Rs. in Lakh)
1	Departmental Research Support Under Special Assistance Program	UGC	71.50
2	Fund for Improvement of S&T Infrastructure in Higher Educational Institutes (FIST)	DST	135.00
3	Fellowships to Research Scholars under Basic Scientific	UGC	102.00*



S.No.	Scheme	Agency	Sanction (Rs. in Lakh)
	Research Scheme (BSR)		
4	Fellowship to First Degree and Higher Degree Students of Department	Sir Ratan Tata Trust	13.00

\* 5 fellowships have been awarded for 5 years with a support of Rs. 16000/- per month to every research scholar and contingency grant of Rs.12000/- per student per annum.

### Brief Write Up:

#### DRS SAP

Department of Pharmacy has been sanctioned Rs. 71.50 lakh in 2009 under DRS SAP Phase II. Rs. 49 lakhs have been sanctioned for equipment and remaining amount has been sanctioned as recurring grant for chemicals, books and journals, etc. All the equipments sanctioned under the grant (zeta sizer, spray drier, fluid bed drier, animal monitoring system and PDA detector) have been purchased. The grant has major impact in terms of new projects received by the Department and in number and quality of research publications. The number of research scholars has also increased steadily since the sanction. Recently UGC recognized the growth of research activities of Department and sanctioned 10 fellowships for Department under Basic Scientific Research Scheme (BSR).

#### DST FIST

Department has been sanctioned Rs. 125 lakhs under DST FIST Phase II during last year. From this fund UPLC-MS/MS facility is created in a new industrial research laboratory at Department of Pharmacy. A highly advanced Waters Acquity UPLC /Triple Quadrupole (TQD) MS/MS has been purchased from Waters India Ltd and has been installed.

## B. PUBLICATIONS

S.No.	Authors	Title	Journals	Vol.	Page
1	Singhvi G, Gampa G, Yadav N, Shukla V K, Ukawala R	Design and evaluation of rapid disintegrating tablet of Racecadotril with enhanced in-vitro dissolution achieved by solid dispersion technique	Indian Journal of Pharmaceutical Education and Research	47(3)	56-6
2	Joseph E, Saha R N	Advances in Brain Targeted Drug Delivery: Nanoparticulate Systems	Journal of PharmaSciTech	3	1-8
3	Nagpal V, Saha R N.	Intranasal Delivery-Opportunities for Systemic and Brain targeting,	Pharmawave	6	1-11
4	Singhvi G, Gampa G, Saha R N	Development and Validation of a Stability Indicating Liquid Chromatographic Method for the Determination of Milnacipran in Bulk and its Formulations	Current Pharmaceutical Analysis	9(2)	191-198
5	Singhvi G, Shah A, Yadav N, Saha R N	Study the effect of formulation variables on drug release from hydrophilic matrix tablets of milnacipran and prediction of in-vivo plasma profile	Pharmaceutical Development and Technology	doi:10.3109/10837450.2013.823993	
6	Singhvi G, Shah A, Nalla S R, Saha R N	Comparative Pharmacokinetic Evaluation of Controlled Release Matrix Tablet of Milnacipran Hydrochloride in Rabbit	Drug delivery letters	In press	
7	Singhvi G, Shukla V K, Ukawala R,	Development of a new, rapid and sensitive HPTLC method for	Arabian Journal of	In press	

S.No.	Authors	Title	Journals	Vol.	Page
	Gampa G, Saha R N	estimation of Milnacipran in bulk, formulation and compatibility study	Chemistry		
8	Balwani G, Joseph E, Reddi S, Nagpal V, Saha R N	Rapid, Simple, and Sensitive Spectrofluorimetric Method for the Estimation of Ganciclovir in Bulk and Pharmaceutical Formulations	Journal of Spectroscopy	Article ID 972806.	
9	Dubey S K, Duddelly S, Jangala H, Saha R N.	Rapid and Sensitive Reverse-phase High-performance Liquid Chromatography Method for Estimation of Ketorolac in Pharmaceuticals Using Weighted Regression	Indian J. of Pharm. Sci.	75,1	89-93
10	Bhatt S, Mahesh R, Devadoss D, Jindal A	Anxiolytic-Like Effect of (4-benzylpiperazin-1-yl)(3-methoxyquinoxalin-2-yl)methanone (6g) in Experimental Mouse Models of Anxiety	Indian J Pharmacol	45	248-251
11	Bhatt S, Mahesh R, Jindal A, Devadoss T	Anti-depressant like activity of N-n-butyl-3-methoxyquinoxaline-2-carboxamide (6o) a 5-HT <sub>3</sub> receptor antagonist	Indian J Exp Biol	51	435-443
12	Kurhe YV, Mahesh R, Thangaraj D, Gupta D	Anti-anxiety effect of a novel 5-HT <sub>3</sub> receptor antagonist N-(benzo[d]thiazol-2-yl)-3-ethoxyquinoxalin-2-carboxamide (6k) using battery tests for anxiety in mice	Indian J Pharmacol (Accepted)		
13	Jindal A, Mahesh R, Bhatt S	Anxiolytic-like effect of etazolate, a type 4 phosphodiesterase inhibitor in experimental models of anxiety	Indian J Exp Biol	51	444-449
14	Bhatt S, Mahesh R, Jindal A, Devadoss T	Anxiolytic-like effect of N-n-butyl-3-methoxyquinoxaline-2-carboxamide (6o) in experimental mouse models of anxiety	Indian J Exp Biol	51	510-514
15	Bhatt S, Mahesh R, Jindal A, Devadoss T	Antidepressant- like effect of novel 5-HT <sub>3</sub> receptor antagonist N-n-butyl-3- ethoxyquinoxalin-2-carboxamide (6p)- an approach using rodent behavioral antidepressant tests battery	Indian J Pharmacol	45	348-353
16	Kurhe YV, Mahesh R, Gupta D, Thangaraj D	Effect of a novel 5-HT <sub>3</sub> receptor antagonist 3-methoxy-n-p-tolylquinoxalin-2-carboxamide (QCM-4) on the acute and chronic rodent models of depression	International Journal of Pharmacy and Pharmaceutical Sciences	5	567-573
17	Gupta D, Radhakrishnan M,	Role of Hypothalamic-pituitary-adrenal-axis in Affective	Indian J Psychol Med	35	290-

S.No.	Authors	Title	Journals	Vol.	Page
	Bhatt S, Kurhe Y	Disorders: Anti-depressant and Anxiolytic Activity of Partial 5-HT <sub>1A</sub> Agonist in Adrenalectomised Rats			2988
18	Bhatt S, Mahesh R, Jindal A, Devadoss T	Neuro-pharmacological evaluation of structurally novel 5-hydroxytryptamine type 3 receptor antagonist, N-n-propyl-3-ethoxyquinoxaline-2-carboxamide (6n) for its anxiolytic potential	Int J Nutr Pharmacol Neurol Dis	3	383-387
19	Kurhe Y, Mahesh R, Gupta D, Thangaraj D	QCM-4 a novel 5-HT <sub>3</sub> antagonist attenuates the behavioral and biochemical alterations on chronic unpredictable mild stress model of depression in Swiss albino mice	J Pharm Pharmacol (In press)		
20	Jindal A, Mahesh R, Bhatt S	Etazolate rescues behavioral deficits in chronic unpredictable stress model: Modulation of hypothalamic-pituitary-adrenal axis activity and brain-derived neurotrophic factor level	Neurochem Int	63	465-75
21	Mahesh R, Dhar AK, Jindal A, Bhatt S	2-(4-substituted piperazin-1-yl)-1,8-naphthyridine-3-carboxylic acids: Novel 5-HT <sub>3</sub> receptor antagonists with anxiolytic like activity in rodent behavioral models	Can J Physiol and Pharmacol	91	848-54
22	Gautam BK, Jindal A, Dhar AK, Mahesh R	Antidepressant - Like Activity of 2-(4-phenylpiperazin-1-yl)-1, 8-naphthyridine-3-carboxylic acid (7a), a 5-HT <sub>3</sub> Receptor Antagonist in Behaviour Based Rodent Models: Evidence for the Involvement of Serotonergic System	Pharmacol Biochem Behav	109	91-97
23	Jindal A, Mahesh R, Bhatt S	Etazolate, a phosphodiesterase 4 inhibitor reverses chronic unpredictable mild stress-induced depression-like behavior and brain oxidative damage	Pharmacol Biochem Behav	105	63-70
24	Jindal A, Mahesh R, Gautam B	Anxiolytic-like effect of linezolid, an oxazolidinone class antibiotic in experimental mouse models of anxiety.	Prog Neuro-Psychopharmacol Biol Psychiatry	40	47-53
25	Priti J, Hemant RJ	Quantitative structure activity relationship analysis of aminoimidazoles as BACE-I inhibitors	Med Chem Res	22	1740-1746
26	Priti J, Hemant RJ	Multi target directed ligand: An approach to treat Alzheimer's	J Alzheimers Dis Parkinsonism	doi: 10.4172/2161-	

S.No.	Authors	Title	Journals	Vol.	Page
		disease		0460.S 1.004	
27	Mahaveer S and Hemant RJ	Histamine H3 Receptor Function and Ligands: Recent Developments	Mini-Reviews in Medicinal Chemistry	13	47-57
28	Pareek RP	Effective Utilization of Web search Engines: An Approach for Medical Practitioners	Medicine Update	23	706-710
29	Deepak P, Shilpi G, Sheetal M, Abhishek K, Amit K S, Boopathi PA, Sanjay K K, Vishal S, Pareek RP, Jyoti A, Dhanpat KK, Ashis D	Comparative evaluation of microscopy, OptiMAL and 18S rRNA gene based multiplex PCR for detection of Plasmodium falciparum & Plasmodium vivax from field isolates of Bikaner, India	Asian Pacific Journal of Tropical Medicine	-	346-351
30	Ashok P, Ganguly S, Murugesan S	Review on In-Vitro anti-Malarial activity of Natural $\beta$ -carboline alkaloids	Mini Rev Med Chem	13(12)	1778-1791
31	Ashok P, Ganguly S, Murugesan S	Design and synthesis of Tetrahydrophthalimide derivatives as inhibitors of HIV-1 Reverse Transcriptase	Org Med Chem Lett	3(8)	1-8
32	Ashok P, Ganguly S, Murugesan S	Design, Synthesis and Evaluation of 2-(1,3-dioxoisindolin-2-yl)-N-phenylacetamides as Inhibitors of Reverse Transcriptase	Der Pharma Chemica	5(4)	10-19
33	Ashok P, Kishorebabu K, Ganguly S, Murugesan S	Lack of human immunodeficiency virus-1 integrase inhibitory activity of novel 3a, 4, 7, 7a-tetrahydro-1H-isoindole-1,3(2H)-dione derivatives	J Phar Negative Results	4(1)	13-18
34	Ashok P, Ganguly S, Murugesan S	Design and Synthesis of 3a, 4, 7, 7a-Tetrahydro-1H-Isoindole-1, 3(2H)-diones as Inhibitors of HIV-1 Reverse Transcriptase	Int J Pharmacy & Pharm Sci	5(3)	659-664
35	Singh A, Taliyan R, Sharma P.L	Protective effect and mechanism of Ginkgo biloba extract-EGb 761 on STZ-induced diabetic cardiomyopathy in rats	Pharmscog Mag.	38	10
36	Kumar P, Prashanth KS, Gaikwad AB, Vij M, Barua CC, Bezbaruah B	Disparity in actions of rosiglitazone against cisplatin-induced nephrotoxicity in female Sprague-Dawley rats	Environ Toxicol Pharmacol	36(3)	883-890
37	Jaipal, A., Pandey, M. M., Abhishek, A., Vinay, S., Charde, S. Y	Interaction of calcium sulfate with xanthan gum: Effect on in vitro bioadhesion and drug release behavior from xanthan gum based buccal discs of buspirone	Colloids and Surfaces B: Biointerfaces	111	644-650
38	M.M. Pandey., A. Jaipal., A. Kumar., R. Malik., S.Y.	Determination of pKa of Felodipine using UV-Visible Spectroscopy	SpectrochimicaActa Part A: Molecular and Biomolecular	115	887-890

S.No.	Authors	Title	Journals	Vol.	Page
	Charde		Spectroscopy		
39	Prashant P Raut, Arpit Sharma, GovindAgraval, Shrikant Y Charde	Simultaneous Estimation of Artesunate and Amodiquine HCl by High Performance Thin Layer Chromatography Method in Bulk and Pharmaceutical Formulations	Journal of Liquid Chromatography and Related Technologies	DOI:10.1080/10826076.2013.803201	
40	Prashant P Raut, Shrikant Y Charde	Simultaneous estimation of levodopa and carbidopa by RP-HPLC using fluorescence detector: its application to pharmaceutical dosage form	Luminescence: The Journal of Biological and Chemical Luminescence	DOI 10.1002/bio.2618	

### C. CONFERENCES ATTENDED/PAPERS PRESENTED:

S.No.	Authors	Title	Name of Conference	Place	Date
1.	Singhvi G, Yadav N, Shukla V, Saha R N	Study of Formulation Variables Influencing the Drug Release from Hydrophilic Matrix Tablets Of Milnacipran.	13th International symposium of Controlled Release Society Indian Chapter, Mumbai on Advances in Technology and Business potential of new drug delivery systems	Mumbai	2013
2	Balwani G, Joseph E, Reddi S, Nagpal V, Saha R N	Studies on Effect of TPGS on Absorption of Ganciclovir in Rats	AAPS Annual Meeting and Exposition	San Antonio, Texas, USA	2013
3	Dubey S K, Anand A, Saha R N	A new enantioselective HPLC method for analysis of Ketorolac: Application to pharmacokinetic study	39th International Symposium on High-Performance-Liquid-Phase Separations and Related Techniques HPLC	Amsterdam	2013
4	Vibhu, Abraham J, Joseph E, Balwani G, Saha R N	Ultra Micro Quantification of Dopamine in Rat Plasma using Solid Phase Extraction: A Simple and Rapid 3D View Method for Higher Recovery, Selectivity and Sensitivity with UFLC Diode Array Method	AAPS Annual Meeting and Exposition	San Antonio, Texas, USA	2013
5	Vibhu, Abraham J, Joseph E, Balwani G, Reddi S, Saha R N	Development of Controlled Release Liposome Formulation for Nasal Delivery of Candidate Hydrophilic CNS Active Drug	AAPS Annual Meeting and Exposition	San Antonio, Texas, USA	2013
6	Nagpal V, Saha R N	Studies on delivery of dopamine in rat brain via nasal administration through olfactory pathway	XX World Congress on Parkinson's Disease and Related	Geneva, Switzerland	2013

S.No.	Authors	Title	Name of Conference	Place	Date
		bypassing blood brain barrier	Disorders		
7	Mahesh R, Jindal A, Bhatt S	Etazolote rescues behavioral deficits in chronic unpredictable stress models of depression by the modulation of HPA axis, BDNF signaling and antioxidant defence system: possible mechanism(s) of neuroprotection	International Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders	AIIMS New Delhi	21-23rd February 2013
8	Mahesh R, Bhatt S, Devadoss T, Jindal A	Neuropharmacological effect of (4-benzylpiperazin-1-yl) (3-methoxyquinoxalin-2-yl) methanone (qcm-15), a potential 5-HT <sub>3</sub> receptor antagonist on chronic unpredictable mild stress-induced changes in behavior and brain oxidative stress in mice	International Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders	AIIMS New Delhi	21-23rd February 2013
9	Mahesh R, Dhar AK, Jindal A, Bhatt S	2-(4-substitutedpiperazin-1-yl)-1,8-naphthyridine-3-carboxylic acids: novel 5-HT <sub>3</sub> receptor antagonists as potential anxiolytics	International Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders	AIIMS New Delhi	21-23rd February 2013
10	Muthu VS, Mahesh R, Jindal A	Design, synthesis and pharmacological evaluation of novel Phosphodiesterases-4 inhibitors as potential anti-depressants	International Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders	AIIMS New Delhi	21-23rd February 2013
11	Mahesh R, Mundra S, Mohammed A	Design and synthesis of falcipain-2 Inhibitor's as a potential Antimalarial Agents	Chemical Biophysics Symposium	Toronto-Canada	21-23 April, 2013
12	Mahesh R, Mundra S	Fluorimetric assay for falcipain-2 activity using Victor multi-label counter	: Biomedical Engineering & Science Technology (BEST) Symposium	St. Michael's Hospital, Toronto-Canada	13 June, 2013
13	Mahesh R, Mundra S	Design, Synthesis of Novel Antimalarial agents	Biological Therapeutics Symposium	University of Toronto, Toronto-Canada	2-3 May 2013
14	Jain M, Priti J	Theoretical Study of Protein Flexibility During Molecular Docking	VIII <sup>TH</sup> ISTCP	Budapest	25 - 31 August 2013

S.No.	Authors	Title	Name of Conference	Place	Date
15	Pankaj W, Priti J, Hemant R J	Docking Study of Indole Derivatives as Flap Endonuclease Inhibitor	Recent advances in computational drug design	IISc , Bangalore	16-17th September 2013
16	Shilpa R. Priti J, Hemant R J	In silico design of novel $\beta$ -secretase inhibitors as anti-alzheimer's agents	IPC		2013
17	Pareek RP	Chairperson	12th Annual Conference of Diabetic Foot Societ of India	Jaipur	06th-08th Sept.2013
18	Pareek RP	Chairperson	24th Annual Conference of Association of Physicians of India	S.P. Medical College, Bikaner, Rajasthan	14-15 September, 2013
19	Pareek RP		49th Annual Meeting European Association for the Study of Diabetes (EASD)	Barcelona, Spain	22- 28 October 2013
20	Subhash C, Ashok P, Murugesan S	In-Silico design and study of novel Benzopiperidines as HIV-1 Reverse Transcriptase Inhibitor	Recent Advances in Computational Drug Design	IISC, Bangalore	16-17th September 2013
21	Ashok P, Subhash C, Ganguly S, Rafael Balana-Fouce, Murugesan S	Synthesis and Evaluation of $\beta$ -carboline derivatives as Anti-Leishmanial agents	2nd UK-India Medicinal Chemistry Congress	IICT, Hyderabad	2013
22	Rajeev T	Effect of peroxynitrite catalyst (FeTMPyP) and morphine alone and in combination against STZ-induced neuropathic pain in rats	International neuroscience Conf	AIIMs, New Delhi	21-23 Feb-2013
23	Rajeev T	Possible Mechanisms of Neuroprotective Effect of Remote Limb Ischemic Preconditioning against Brain stroke	National Conf	GLA Uni. Mathura	16-17th Feb,2013
24	Rajeev T	Possible involvement of GSK-3 beta in attenuation of cardioprotective effect of ischemic preconditioning in Diabetic rat heart	National conf	Shoolini University	20-21 June-2013
25	M MPandey, A Gajja A, Jaipal	Dissolution Rate Enhancement of Felodipine by Solid	CRS Annual meeting and exposition	Honolulu, Hawaii,	2013

S.No.	Authors	Title	Name of Conference	Place	Date
	A, S.Y Charde	Dispersions using Novel Amphiphilic Polymer Soluplus®		USA	
26	A Jaipal ., M M Pandey., P Shailaja., S Y Charde	Design of Buccal Mucoadhesive Drug Delivery Systems of Buspirone: Effect of HPMC and Mannitol on Drug Release and Mucoadhesion Behavior using Factorial Design Approach	AAPS Annual Meeting and Exposition	San Antonio, Texas , USA	2013

**D. BOOKS PUBLISHED/EDITED DURING THE YEAR**

None

**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

None

**F. INVITED TALKS GIVEN BY BITS FACULTY**

1. Prof. R P Pareek delivered a talk on ' Effective Utilization of Web search Engines: An Approach for Medical Practitioners', at 68th Annual Conference of Association of Physicians of India (API), 30 Jan.2013- Feb.2013, held at Codissia Trade Fair Complex, Coimbatore, India
2. Prof. R P Pareek delivered a talk on 'Community & Individual Health: Empowering Women through ICT' at International Conference on Empowering Women in Developing Countries through Information and Communication Technologies Organised by Centre For Women Studies, Dept. of Humanities & Social Sciences Jaypee University of Information Technology-Waknaghat, Solan & Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi in collaboration with IWID & READ-India at JUIT, Waknaghat, Solan, Himachal Pradesh, India ,1-3 June 2013
3. Prof. RN Saha visited Kathmandu University, Nepal for 10 days as Visiting Professor, where he delivered 5 lectures.

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT**

1. Mr. Samir Singh, Senior Manager, Corporate Legal Cell, Aditya Birla Management Corporation Pvt Ltd.
2. Mr. Kaushal Pathak, Scientist, Torrent Research Centre, Ahmedabad
3. Dr. A. J. Pandian, Reader and Head, Vision Research Foundation, Sankara Nethralaya, Chennai
4. Dr. Kaustubh Tambwekar, General Product Development Manager, Janssen, Pharmaceutical Companies of Johnson and Johnson, Johnson and Johnson Ltd, Mumbai
5. Dr. Pavan Muttill, Asst Prof. at University of New Mexico, USA

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. Prof. RN Saha has been awarded "Pharmaceutical Professional of the Year" (2013) by Indian Association of Pharmaceutical Scientists and Technologists (IAPST)
2. Prof. RN Saha visited Kathmandu University, Nepal for 10 days as Visiting Professor, where he delivered 5 lectures and held discussions with KU for collaborations. He also visited Pokhara Univ, Pokhara, Nepal for possible collaboration



3. Prof RP Pareek was awarded 'Fellow of the Indian College of Physicians (FICP)'. The fellowship was conferred at the Convocation at 68th APICON – ICP Convocation held at Coimbatore.
4. Prof RP Pareek was given 'Distinguished Senior Physician Award' for outstanding contribution in the field of medicine at the 24th Annual Conference of Association of Physicians of India, Rajasthan Chapter, at Bikaner
5. Mr. Jaipal received the travel grant from DST for attending 2013 AAPS Annual meeting and exposition, Texas, USA
6. Ms. Vibhu received the travel grant from DST for attending 2013 AAPS Annual meeting and exposition, Texas, USA
7. Ms. Vibhu received organizer's travel grant for attending XX World Congress on Parkinsons and Related Disorders 2013, Switzerland
8. Ms. Garima received the travel grant from DBT for attending 2013 AAPS Annual meeting and exposition, Texas, USA
9. Ms. Pallavi Singh awarded DST INSPIRE fellowship
10. Mr. Ankur Jindal awarded CSIR SRF
11. Mr. Ashok P. awarded CSIR SRF

**I. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

UPLC-MS/MS facility is created in a new industrial research laboratory at Department of Pharmacy. A highly advanced Waters Acquity UPLC /Triple Quadrupole (TQD) MS/MS has been purchased from Waters India Ltd.

**J. DEPARTMENTAL ASSOCIATION**

**Pharmacy**

In the year 2013 the Department of Pharmacy, its students and faculty members, continued their untiring efforts for further betterment and had several achievements and activities during the year. Research activities of Department increased further in terms of sponsored projects, departmental projects, number of publications and conference presentations and number of doctoral students. During the year faculty members of Department received grants worth Rs. 106.9 lakh from various government funding agencies and industries. This resulted in Department being supported by various funding agencies under Departmental schemes. The total value of Departmental grants received for ongoing projects is more than Rs. 509.55 lakhs. The total value of projects and grants that are ongoing is more than Rs. 5 crore.

During APOGEE 2013, B. Pharmacy students along with M. Pharmacy students demonstrated their innovative ideas in various fields of engineering and pharmacy. The projects covered not just Pharmacy or health sciences but even other fields like Design appliances, Energy and Environment, Communication and Network systems, Automation with fabricated working models. The ideas were best displayed with several animated presentations and charts useful for easy understanding of the theoretical concepts. This APOGEE was unique in the fact that 17 project ideas had been submitted out of which 12 projects were selected. These 12 projects were presented with working models which directly benefitted the students to explore various other fields where pharmacy can be applied. In addition to projects, they also submitted 6 papers in the field of Pharmacy. The department was glad that it had bagged one prizes during APOGEE for the project titled "Differential Renometer".

During APOGEE 2013, Pharmaceutical Society had organized the following events:

1. Doper's quiz: An online quiz event open for all students. Around 400 students participated. This event comprised of questions and pic-connect puzzles related to Pharmacy as well as some general questions.
2. ESPOIR: A Health Business plan competition open for all (in teams of 2) and 30 teams participated out of which 8 teams were selected for final.

The experiences acquainted by the Pharmacy department Faculty Members and research scholars by visiting various conferences and workshops were shared with the staff and students of the department. The Pharmaceutical Society organized farewell dinner twice during the year (in both semesters) for the graduating students.

The Pharmaceutical Society also published annual department magazine 'AUDEAMUS' in which articles that address the major issues, innovations and developments in the pharmaceutical sector in the past years were compiled.

Department of Pharmacy has been sanctioned Rs. 71.50 lakh in 2009 under DRS SAP Phase II. Rs. 49 lakhs have been sanctioned for equipment and remaining amount has been sanctioned as recurring grant for chemicals, books and journals, etc. All the equipments sanctioned under the grant (zeta sizer, spray drier, fluid bed drier, animal monitoring system and PDA detector) have been purchased. The grant has major impact in terms of new projects received by the Department and in number and quality of research publications. The number of research scholars has also increased steadily since the sanction. Recently UGC recognized the growth of research activities of Department and sanctioned 5 fellowships for Department under Basic Scientific Research Scheme (BSR). Department has also been sanctioned Rs. 125 lakhs under DST FIST Phase II during this year. From this fund LC-MS-MS has been purchased.

During the year Sir Ratan Tata Trust, Mumbai and University Grants Commissions, New Delhi recognized the achievements of Department by sanctioning fellowships to students of Department. Sir Ratan Tata Trust, Mumbai gave scholarship to 14 meritorious students (first degree and higher degree). UGC sanctioned 5 more research fellows to Department for 5 years under Basic Scientific Research Scheme in addition to the 5 sanctioned in previous year.

Faculty members, research scholars and students of the Department published papers in various journals of repute and presented papers in national and international conferences. Several faculty members and research scholars received the travel awards for attending international conferences. Prof. RN Saha visited Kathmandu University, Nepal for 10 days as Visiting Professor, where he delivered 5 lectures and held discussions with KU for collaborations. He also visited Pokhara Univ, Pokhara, Nepal for possible collaboration.

In a significant development, Prof. RN Saha has been awarded "Pharmaceutical Professional of the Year" (2013) by Indian Association of Pharmaceutical Scientists and Technologists (IAPST), bringing laurels to the department.

**B1.10.13 Department: Physics**

Number of faculty members (as on 31 December 2013)

<b>Senior Professors, Professors</b>	02
<b>Associate Professors</b>	05
<b>Assistant Professors</b>	16
<b>Lecturers</b>	00
<b>Visiting Faculty</b>	00

**HoD:** Debashis Bandyopadhyay**Contact details:** debashis.bandy@gmail.com, 01596-515288**Number of PhD Scholars:** 21 (including part-time students)**Thesis Submitted:** 02**RESEARCH ACHIEVEMENTS**

Projects: (ongoing projects, sanctioned/completed this year): 14

S.No.	P.I.	Amount	Sponsoring Agency	Title
1	Dr. Raj Kumar Gupta (Co-PI: Manjuladevi. V)	Rs. 25.6 lacs	DST sponsored under Instrument Development Programme	Development of surface plasmon resonance with a novel optical design.
2	Dr. D. D. Pant	Rs. 11.63 lacs	UGC	Steady state measurements of Fluorescent molecules in restricted environments
3	Dr. D. D. Pant	Rs. 55.5 lacs	DST Major project (sanctioned)	Time-resolved Spectroscopy of Fluorescent Molecules in Micellar Systems.
4	Dr. Madhukar Mishra	Rs. 11.40 lacs	DST	Investigations on QuarkGgluon Plasma through quarkonia suppression in QCD matter.
5	Dr. Niladri Sarkar	Rs. 6.8 lacs	Indian National Science Academy	Study of Indus Valley Scripts Through Linguistic and Markov Chain Methods
6	Dr. Rakesh Choubisa	€ 25,200	Marie Curie International Research Staff Exchange Scheme (IRSES) of the European Commission (EC) (7 <sup>th</sup> Framework Programme (FP-7))	A multiple-scattering computing platform for nanomaerials
7	Dr. S. Sindhu (Co-PI: Manjuladevi. V)	Rs. 24.35 lacs	DST major	Design and characterization of electrochromic rear view mirrors using conducting polymers

S.No.	P.I.	Amount	Sponsoring Agency	Title
8	Dr. Tapomoy Guha Sarkar	Rs 10.38 lacs	DST fast track	The study of post-reionization HI distribution using the redshifted 21-cm signal and Ly-alpha forest towards understanding cosmic acceleration
9	Dr. Amol Holkundkar	Rs. 13 lacs	DST Fast Track (sanctioned)	Study of laser interaction with atomic clusters and preformed plasmas
10	Dr. Subhashis Gangopadhyay	Rs. 2 lacs	BITS Research Initiation Grant	Growth and Characterization of Substrate Supported Transition Metal Nanostructures Useful for Catalytic, Electronic and Sensor Applications
11	Dr. Subhashis Gangopadhyay	Rs. 6 lacs	UGC Start up Grant	Transition Metal Induced Epitaxial Growth and Characterizations of Single layer <i>Graphene</i> : a High-Tech Material for Next Generation.
12	Dr S Sindhu		CSIR (sanctioned)	Preparation and Characterization Thin films of electrochromic polymer and fabrication of smart pixel display
13	Dr. C.B. Das	Rs. 14.34 lacs	DST major (sanctioned)	Study of structure and decay of super heavy nuclei
14	Dr. Niladri Sarkar	R. 5.2 lacs	BITS-PILANI- SEED GRANT SCHEME	Electromagnetic Characterization of Three Dimensional Targets with Plasma Cladding for Stealth Technology Using Recursive Convolution Finite Difference Time Domain Method

In addition to these individual projects (the list in Part A of the annual report) the department is supported by the UGC under its DRS-SAP and by DST under its FIST scheme.

## **PUBLICATIONS- RESEARCH ARTICLES, BOOKS, CHAPTERS, CONFERENCE PROCEEDINGS)**

### **Book Edited and Research Articles**

The department has published 25 papers in international refereed journals (the list in Part A of the annual report). Guest editor for journals, editorials

## **DEPARTMENTAL ACTIVITIES**

(Conferences, seminars and workshops, invited talks, significant new equipment/ experimental facility):

### **Significant new equipment/experimental facility installed in the department**

1. With 50% support from the DST under the FIST scheme the department has purchased a Rigaku X-ray Diffractometer.
2. Department has installed a Scanning Tunneling Microscope (STM) with lock-in-amplifier from the departmental CAPEX grant of total amount Rs. 6,90,000/- as a part of advanced physics lab, as well

as the part of research activities and to support the newly joined faculty members to start their research work.

3. From the same CAPEX grant, department has installed a Physical quantities measurement system (PQMS) as a part of advanced physics laboratory and also for research activities of Rs. 10,15,000/-. PQMS is a versatile tool which enables to measure the electrical resistivity of wide variety of materials ranging from conducting metals ( $10^{-4}\Omega$ ) to insulators ( $10^6\Omega$ ). In addition, PQMS can also be used to measure the frequency dependent magnetic AC susceptibility of all kind of solids. Moreover, electrical resistance and magnetic susceptibility of the samples as a function of temperature in the range of 80-450K. can also be obtained using liquid nitrogen cryostat
4. Department also installed Quartz crystal microbalance and Temperature controller with fluid circulation as a part of advanced physics laboratory to perform the experiments on "Detection of contaminants in water" and "Molecular interaction and phase transition" in addition to the research activities and students projects courses. Department spent approximately Rs 5 lakhs from departmental CAPEX grant.
5. Department of Physics took an initiative to build a high performance cutting edge computing facility to fulfill the computational needs of the Department in the frontier areas of research like Condensed Matter Physics, Plasma Physics, Nuclear and Particle Physics, Cosmology and Astrophysics, Complex systems, Bio Physics, and Atomic and Molecular Physics. And also to enhance the quality of different teaching courses where the above-mentioned system can be an integrated part. This facility also can be used as a part of students project work and also for part of 1st degree thesis work. In view of this Department so far procured 3 IBM servers each having 24cores of processor, 64 GB of RAM and 3.6 TB of HDD. Recently Department also placed order for 2 more such servers from departmental CAPEX 2013-14 grant. To establish this facility department has used different source of funding like, faculties personal project grant, departmental CAPEX grant and DST-FIST. Department also purchased the software's (VASP, Wien2K, Origin) for different types of calculations and graph plots.

#### Conferences, seminars & workshops organized

##### ➤ **Autumn School on Cosmology, 5<sup>th</sup> to 15<sup>th</sup> November 2013.**

The Department of Physics, BITS Pilani – Pilani campus, in association with IUCAA, Pune, organized an Autumn School on Cosmology on 5<sup>th</sup> to 15<sup>th</sup> November 2013. The School had a flying start with an inauguration in which Vice Chancellor Prof. B. N. Jain, Director Prof. G. Raghurama, HOD of Physics, Prof. Debashis Bandyopadhyay, Professor of Physics, Prof. R. R. Mishra, organizer of the Workshop, Dr. Tapomoy Guha Sarkar, faculty members and students of the department along with participants who came from various universities of the country participated. The school aimed to provide an exposure to the basic aspects of cosmology and areas of frontier research.

Target participants were freshly joined PhD students planning to pursue research in cosmology. There were 27 participants from universities and research institutes across the country. The following topics were covered in the School.

- Introduction to cosmology
- Thermal history of the Universe
- The inflationary Universe
- Inhomogeneous Universe and Structure formation
- CMBR physics
- Dark matter and Dark energy

Apart from BITS faculty members, resource persons were drawn from IUCAA, National Centre for Radio Astrophysics, Pune, Indian Statistical Institute, Kolkata, Delhi University and Jamia Millia University, Delhi. The school was an immense success and received good feedback from the participants as well as the visiting faculty.

**Invited Talks given by BITS faculty**

1. Dr. Amol Holkundkar gave an invited talk "Proton acceleration by circularly polarized travelling electromagnetic wave" at the Bhabha Atomic Research Centre, Mumbai on 8th July 2013.
2. Dr. Jayendra N Bandyopadhyay has delivered an invited lecture in the conference on Quantum Information Processing and Application, Harishchandra Research Institute, Allahabad, India, 2-8 December, 2013
3. Dr. Jayendra N Bandyopadhyay has delivered Colloquium in Centre for Excellence in Basic Sciences, Mumbai Univ., Mumbai, India, 19th February, 2013.
4. Dr. Jayendra N Bandyopadhyay has delivered prestigious Physics Colloquium on "Quantum Coherence and Biology" in Bhabha Atomic Research Centre, Trombay, Mumbai, India, 18th February, 2013.
5. Dr. Jayendra N Bandyopadhyay has delivered an invited lecture in the International Workshop on Quantum Biology, Indian Institute of Technology, Jodhpur, India, 25-27 January, 2013.
6. Dr. Jayendra N Bandyopadhyay has delivered an invited lecture in International Conference on Quantum Information and Quantum Computing, Indian Institute of Science, Bangalore, India, 6-11 January, 2013.
7. Dr. Navin Singh has delivered an invited lecture in "Conference on Nonlinear Systems and Dynamics (CNSD)", held at IIT Indore, 11-14 December, 2014
8. Dr. Navin Singh has delivered an invited lecture in "II National Conference on Micro and Nano Electronic Systems and Devices (MINO-2013)", held at Vivekananda Institute of Technology, Jaipur, 8-9 August, 2013
9. Dr. Rishikesh Vaidya gave a review talk on "Electric Dipole Moments of neutron, deuteron and Mercury in Supersymmetry" at the Workshop on "P and CP Violations in elementary particles and Composite systems" held at the Mahabaleshwar during February 18-23, 2013.
10. Dr. Anshuman Dalvi has delivered an invited talk entitled "Thermal studies on materials: A case study on superionic glasses" in a workshop: "Short term course on characterization of materials June 17-22, 2013" Malaviya National Institute of Technology Jaipur (India).
11. Dr. Anshuman Dalvi has delivered an invited talk entitled "Science in India: Glorious past and challenges" Invited popular science lecture delivered in 15th INSPIRE Science camp for school children" at Center for development of Physics education (CDPE), Physics department, University of Rajasthan (India)
12. Dr. Anshuman Dalvi has delivered an invited talk entitled, "Fast Ionic Glass-Ceramic Composites for Solid State Ionic Devices: An Overview" invited talk in 10<sup>th</sup> national conference on solid state ionics at iitkgp, December 21-24<sup>th</sup> 2013

**Invited talks arranged in the department**

1. Dr. Didier Sebilleau (Marie Curie Researcher), from University de Rennes1, Rennes, France, has delivered a talk on "MSNano: A MULTIPLE SCATTERING PLATFORM FOR (NANO) MATERIALS; MsSpec: A MULTIPLE SCATTERING PACKAGE FOR SPECTROSCOPIES USING ELECTRONS TO PROBE MATERIALS" on 29th August, 2013.
2. Prof. Deshdeep Sahdev of Physics Department, IIT Kanpur has delivered a talk on "Indigenous technology in a Globalized World: A Case Study" or "Resolving Atoms in our Backyards" on 14th March, 2013.
3. Prof. V. D. Vanker, of Physics Department, IIT Delhi has delivered a talk on "Story of Atoms from Niels Bohr's Days" on 7th Sep., 2013. Above talk was organized by the Department of Physics, as a celebration of 100 Years Anniversary for Niels Bohr's.
4. Professor Ajoy Kumar Ghatak, distinguished professor and academician, IIT Delhi, has delivered a popular talk on, "EINSTEIN & HIS YEAR OF MIRACLES" on 28<sup>th</sup> August, 2013 in presence of large number of students and faculties in LTC. The talk was ended after a very extensive, interactive question-answer and discussion session.

### Workshop organized in the department

Department organized one-day workshop on “100 years of Bohr’s model” on 7<sup>th</sup> September, 2013. This model stood the test of time for a century and has been a backbone of entire modern science and technology. Well-known educator and scientist Professor V D Vankar of IIT Delhi delivered invited lecture on, “story of atom from Neils Bohr days”. The lecture was followed by presentations by school children on well-known scientists contemporary to Neils Bohr. This workshop got nation-wide appreciation from well-known nuclear physics of India, viz. Prof. Y. R. Waghmare and Prof. G. K. Mehta.

### Conferences attended/papers presented

1. Dr. Navin Singh attended “8th conference on Nonlinear systems and Dynamics” held at IIT Indore, 11-14 December, 2013
2. Dr. Tapomoy Guha Sarkar presented a paper entitled “Cosmology using the neutral IGM” at Jawaharlal Nehru University (JNU), New Delhi, in December 2013.
3. Dr. Amol Holkundkar presented a paper entitled “Investigation of neutron generation in laser-cluster interaction” at National Laser Symposium - 22 organized by DAE-BRNS at Manipal Institute of Technology from 8th to 11th Jan 2014.
4. Dr. Madhukar Mishra presented a paper entitled “J/psi Suppression in QGP under colour screening scenario at SPS, RHIC and LHC energies” in the XX DAE-BRNS High Energy Physics Symposium - 2013 held at Visva-Bharati University, Shantiniketan, West Bengal, during 13-18 Jan, 2013.
5. Munendra Jain and Rakesh Choubisa contributed a paper on “Relativistic distorted wave Born approximation (rDWBA) model for ionization of Zn (001) surfaces” at XXVIII International conference on Photonic, Electronic and Atomic Collisions, which was held at Lanzhou (China) during 24-30 July, 2013. Poster was presented by Mr. Munendra Jain.
6. Dr. Rishikesh Vaidya presented a paper “Higgs to di-photon decay rate in Supersymmetry without R-parity” at the “19th International Symposium Particles Strings and Cosmology” held at the GIS Convention Center Taipei, during November 20-26, 2013.
7. TejVarma Y and D. D. Pant contributed a Paper ‘Steady state and Time resolved fluorescence study of 6-methoxyquinoline monocation: Effect of micellar charge on photophysics’. 7th International conference on Materials for Advance Technologies: ICMAT 2013, SUNTEC Singapore. Presented by TejVarma.
8. Sunita Joshi, TejVarma Y and D. D. Pant contributed a paper ‘Dynamic Fluorescence Quenching of Quinine Sulfate Dication by Chloride Ion in Ionic and Neutral Micellar Environments. SOLID STATE PHYSICS: Proceedings of the 58th DAE Solid State Physics Symposium 2013. Patiala.
9. Sunita Joshi and D. D. Pant contributed a paper ‘Solvatochromic study of quinidine: Determination of ground and excited state dipole moments’ International Conference on Recent Trends in Applied Physics and Material Science, RAM 2013, Bikaner.
10. TejVarma Y and D. D. Pant. contributed a paper ‘Estimation of Ground and excited state dipole moments of 6-Methoxyquinoline from Solvatochromic Effect on Absorption and Fluorescence Spectra’ International Conference on Recent Trends in Applied Physics and Material Science, RAM 2013, Bikaner.
11. Subhashis Gangopadhyay presented a paper entitled “Evolution of Ge quantum dots on clean and H nanopatterned Si(110) surface during annealing: a STM investigation”, at the “100<sup>th</sup> Indian Science Congress”, organised by University of Calcutta, Kolkata, during January 3-7, 2013.
12. Subhashis Gangopadhyay contributed a paper entitled “Conformational and Orientational Ordering in 2D Superlattices of Brominated Porphyrins”, presented in “Interdisciplinary Surface Science Conference (ISSC-19)”, held at East Midlands Conference Centre, Nottingham, UK, during March 3-7, 2013.
13. Sindhu S gave an invited talk in National conference on Condensed Matter Physics, BITS - Pilani, Feb 24-24 2012
14. Kapil Dhaka, Ravi Trivedi and Debashis Bandyopadhyay, Oral presentation Kapil Dhaka in “International Conference in Nanoscience and Nanotechnology, ICNN -2013”. BBAU, Lucknow, during 18-20 Nov 2013. “Shell magnetism in Icosahedral Cr @Ge<sub>10</sub> superatom.”

15. Kapil Dhaka, Ravi Trivedi and Debashis Bandyopadhyay, Poster presentation by Kapil Dhaka in "International E-Workshop on Computational Condensed Matter Physics and Materials Science, IWCCMP-2013" IITM, Gwalior, during 27-29 Nov, 2013. "Shell formalism in semiconductor based magnetic superatom".
16. Kapil Dhaka, Ravi Trivedi and Debashis Bandyopadhyay, Poster presentation by kapil Dhaka in "The 58<sup>th</sup> DAE Solid State Physics Symposium(DAE-SSPS-2013)" at Thapar University, Patiala during December 17-21, 2013. "Magnetic behavior in Cr<sub>2</sub>@Gen (1≤n≤12) Clusters: A Density Functional Investigation".
17. "Enhanced electrical transport in ionic liquid dispersed TMAI-PEO solid polymer electrolyte" Neha Gupta, MuneshRathore, AnshumanDalvi, Anil Kumar accepted for DAE Solid State Physics symposium 2013 presented in DAE Solid State Physics symposium 2013 to appear in AIP conf. proceedings in 2014.
18. "Li<sub>2</sub>SO<sub>4</sub>-Li<sub>2</sub>O-P<sub>2</sub>O<sub>5</sub> Ionic Glasses Dispersed with [Bmim] [PF<sub>6</sub>] Ionic Liquid: Electrical Transport and Thermal Stability Investigations" MuneshRathore, AnshumanDalvi, Anil Kumar presented in DAE Solid State Physics symposium 2013 to appear in AIP conf. proceedings in 2014 .
19. "Effect of conditional glass former variation on electrical transport in Li<sub>2</sub>O-P<sub>2</sub>O<sub>5</sub>-MoO<sub>3</sub> glassy ionic system' Muneshrathore, A dalvi in 10th National Conference on Solid state ionics 21-24th december, IIT kharagpur.
20. Monika Poonia, Manjuladevi V, Raj Kumar Gupta have contributed a paper entitled "Scanning Tunneling Spectroscopy of Thin Films of Carbon Nanotubes" in International Conf. on Recent Trends in Applied Physics & Material Science, Feb 1-2, 2013 held at Bikaner.
21. KeertiChoudhury, Raj Kumar Gupta, Manjuladevi V., Sanjeev Gupta, JamilAkhtar have contributed a paper entitled "Periodic Array of TiO<sub>2</sub> Nanoparticles on Gold Substrates" in International Conf. on Recent Trends in Applied Physics & Material Science, Feb 1-2, 2013 held at Bikaner.
22. Jitendra Kumar, Raj Kumar Gupta, V. Manjuladevi have contributed a paper entitled "Reduction of Threshold Electric Field On Doping Nematic Liquid Crystal With Functionalized CNT" in International Conf. on Recent Trends in Applied Physics & Material Science, Feb 1-2, 2013 held at Bikaner.
23. Karthik C., Raj Kumar Gupta, Manjuladevi V, Sandeep Kumar have contributed a paper entitled "Cadmium Sulfide nanoparticles at air-water interface" in International Workshop on Surface Science & Engineering held at IIT Indore, 4-5 March (ORAL presentation).
24. C. Karthik, Adbhut Gupta, Aditya Joshi, Manjuladevi V., Raj K Gupta, and Sandeep Kumar contributed a paper entitled "Investigating optical properties of suspension of Tricycloquinazoline disk-shaped liquid crystals in various solvents" in International Conference on Nanoscience and Nanotechnology held at Lucknow University, 18-20 Nov 2013. (Oral Presentation)
25. AnaghPathak, Monika Poonia, Manjuladevi V and R. K. Gupta have contributed a paper entitled "Interaction of DNA and ultrathin films of cationic surfactant" in International Conference on Nanoscience and Nanotechnology held at Lucknow University, 18-20 Nov 2013.
26. C. Karthik, Manjuladevi V., R. K. Gupta and Sandeep Kumar have contributed a paper entitled "Physicochemical Studies on a novel discotic liquid crystal" in International E-Workshop on Computational Condensed Matter Physics and Material Science held at Gwalior, 27-29 Nov 2013.
27. C. Karthik, Adbhut Gupta, Aditya Joshi, Manjuladevi V., R. K. Gupta, Mahesh Varia and Sandeep Kumar have contributed a paper entitled "Formation of thin films of H-type liquid crystal dimers" in DAE-Solid State Physics Symposium held on 17-21 Dec 2013, Patiala.

#### National and International Collaborations

Department has several collaborations with different national and internally reputed institutes. Some of the institutes are listed as follows. A short notes on the selective collaborative work with the research outputs are also described.

1. Bengal Engineering and Science University, Shibpur, Howrah, West Bengal, India.
2. RRI, Bangalore
3. CEERI, Pilani
4. Physical Research Laboratory, Ahmedabad.



5. University illinois at Urbana Champaign
6. Tata Institute of Fundamental Research
7. Aryabhata Research Institute of Observational Science, Nainital
8. Swiss Federal Institute of Technology Lausanne(EPFL), Switzerland
9. University of Nottingham, UK
10. University of Bremen, Germany
11. Bhabha Atomic Research Centre, Mumbai
12. Jain University, Bangalore
13. Missouri State university Springfield, USA

Dr. RishikeshVaidya visited Physical Research Laboratory, Ahmedabad for six month sabbatical during January to June 2013 and started a collaborative project on Neutrino Physics with Prof. AnjanJoshapura. He also presented his ongoing work in the area of Higgs Physicsand Supersymmetry at the "19th International Symposium on Particles Strings and Cosmology" held in Taipei during November 20-26, 2013. He also gave a review talk on "Electric Dipole Moments of neutron, deuteron and Mercury in Supersymmetry" at the Workshop on "P and CP Violations in elementary particles and Composite systems" held at the Mahabaleshwar during February 18-23, 2013.

Dr. RakeshChoubisa visited three Institutes in Europe for 6 months as a Marie Curie Researcher in the International project "FP7-People-IRSES MSNano network", which is being sponsored by European Comission under its International Research Staff Exchange Scheme (IRSES). He visited Universite de Rennes1, Rennes (France), Academy of Sciences of the Czech Republik, Pargue (Czech Republic) and InstitutoNazionale de FisicaNucleare, Frascati, (Italy). He is contributing in the project as a Work Package leader on the work Package related to the impact spectroscopies with in multiple scattering computing platform. Physics Department hosted Dr. Didier Sebilliau, a CNRS Researcher from University of Rennes1 (France), during the August month of 2013 under the "FP7-People-IRSES Network" of European Commission. He worked with Dr. Choubisa on the application of impact spectroscopy to solid targets.

Dr. SubhashisGangopadhyay worked as a visiting scientist at the Institute of Solid State Physics, University of Bremen, Germany, during May-June 2013 in a collaborative project on "Growth of Ge on Ga terminated Si(112) surfaces" sponsored by University of Bremen, Germany.

Dr. Kunal Bhattacharya is collaborating with the Department of Biological Physics, Eotvos University, Budapest, Hungary. Preprint version of a recently completed work can be seen in [arxiv.org/abs/1311.2169](http://arxiv.org/abs/1311.2169). A collaboration with the SNBNCBS, Kolkata has resulted in the publication *Front. Physics* 1 (2014) 35. In addition, he is working with the Dr. AK Nandi of the CES, IISc, Bangalore on dominance networks of wasps.

Dr Raj Kumar Gupta has worked in a collaboration with Dr Partha Bhattacharyya of BESU, Sibpur on Au/TiO<sub>2</sub>/Ti memory device. They have published one paper in an international journal, *Semicond. Sci. & Tech (IOP)* in 2013. In another collaborative works on TiO<sub>2</sub> nanotubes, Dr Gupta and Dr Manjuladevi have published one paper in the *Sci. Adv. Mater.* (in Press) and another paper is under review.

Dr Manjuladevi and Dr Gupta are working in collaboration with Prof S Kumar of RRI, Bangalore on various aspects of liquid crystals. They have published two research articles in international journals in 2012. They have reported 5 articles in international conferences.

Dr Manjuladevi and Dr Gupta are working in collaboration with Scientists of CEERI Pilani and they have published one article in an international journal (*Appl. Sur. Sci, Elsevier*) in 2013. They have report one paper in an international conference.

Professor AnshumanDalvi collaborates with Professor Tom heitmann, Saibalmitra of Missouri state university Springfield USA on some aspects on (i) thin film lithium batteries and (ii) Neutron diffraction stidies on Lithium ion conductors Paper; Neutron scattering studies of glassy solid state Li electrolytes by L Zella, A Zaidi, M Rathore, A Dalvi, S Mitrapresented in Annual meeting of American Physical society and to appear in *Bulletin of American Physical society* (2014) One joint proposal on neutron diffraction studies is accepted neutron diffraction studies on National Institute for Standards and technology NIST,USA "How fast Li<sup>+</sup> ion can move in a glass".

**Conference proceedings**

1. Scanning Tunneling Spectroscopy of Thin Films of Carbon Nanotubes, Monika Poonia, Manjuladevi V, Raj Kumar Gupta, International Conf. on Recent Trends in Applied Physics & Material Science, Feb 1-2, 2013, AIP | Conference Proceedings, Vol 1536, pp 171-172, 2013. doi:<http://dx.doi.org/10.1063/1.4810155>
2. Periodic Array of TiO<sub>2</sub> Nanoparticles on Gold Substrates, KeertiChoudhury, Raj Kumar Gupta, Manjuladevi V., Sanjeev Gupta, JamilAkhtar, International Conf. on Recent Trends in Applied Physics & Material Science, Feb 1-2, 2013. AIP | Conference Proceedings, Vol 1536, pp 185-186, 2013.
3. Reduction of Threshold Electric Field On Doping Nematic Liquid Crystal With Functionalized CNT Jitendra Kumar, Raj Kumar Gupta, V. Manjuladevi, International Conf. on Recent Trends in Applied Physics & Material Science, Feb 1-2, 2013. AIP | Conference Proceedings, Vol 1536, pp 693-694, 2013.
4. Cadmium Sulfide nanoparticles at air-water interface, Karthik C., Raj Kumar Gupta, Manjuladevi V, SandeepKumar International Workshop on Surface Science & Engineering, IIT Indore, 4-5 March (ORAL presentation).
5. Investigating optical properties of suspension of Tricycloquinazoline disk-shaped liquid crystals in various solvents, C. Karthik, Adbhut Gupta, Aditya Joshi, Manjuladevi V., Raj K Gupta, and Sandeep Kumar, International Conference on Nanoscience and Nanotechnology, Lucknow University, 18-20 Nov 2013. (Oral Presentation).
6. Interaction of DNA and ultrathin films of cationic surfactant, AnaghPathak, Monika Poonia, Manjuladevi V and R. K. Gupta, International Conference on Nanoscience and Nanotechnology, Lucknow University, 18-20 Nov 2013. (Poster Presentation).
7. Physicochemical Studies on a novel discotic liquid crystal, C. Karthik, Manjuladevi V., R. K. Gupta and Sandeep Kumar, International E-Workshop on Computational Condensed Matter Physics and Material Science, Gwalior, 27-29 Nov 2013. Poster Presentation.
8. Formation of thin films of H-type liquid crystal dimers, C. Karthik, Adbhut Gupta, Aditya Joshi, Manjuladevi V., R. K. Gupta, Mahesh Varia and Sandeep Kumar, Poster presentation in DAE-Solid State Physics Symposium, 17-21 Dec 2013, Patiala.
9. Studies on ultrathin films of tricycloquinazoline (TCQ) based discotic liquid crystal molecules Raj Kumar Gupta, Manjuladevi V., C. Karthik, Sandeep Kumar Journal of Physics: Conference Series, IOP, Vol 417, pg - 012068 (2013).
10. Dynamic Fluorescence Quenching of Quinine Sulfate Dication by Chloride Ion in Ionic and Neutral Micellar Environments. Sunita Joshi, TejVarma Y and Debi D Pant SOLID STATE PHYSICS: Proceedings of the 58th DAE Solid State Physics Symposium 2013. AIP Conference Proceedings (Accepted).
12. Solvatochromic study of quinidine: Determination of ground and excited state dipole moments. Sunita Joshi and D. D. Pant. Proceeding of International Conference on Recent Trends in Applied Physics and Material Science: RAM2013 AIP Conf. Proc 1536, 797 (2013).
13. Estimation of Ground and excited state dipole moments of 6-Methoxyquinoline from Solvatochromic Effect on Absorption and Fluorescence Spectra" TejVarma Y and D. D. Pant. International Conference on Recent Trends in Applied Physics and Material Science : RAM 2013 AIP Conf. Proc. 1536, 1123 (2013).
14. Ionic liquid [BMIM][BF<sub>4</sub>] – glass composites for solid state battery applications" MuneshRathore, AnshumanDalvi and Anil Kumar International Journal of Physics and Mathematical Sciences ISSN: 2277-2111 (Online) An Online 2 (2012) 1-5.
15. "Electrical transport and impedance spectroscopy investigations in PEO:MgCl<sub>2</sub> solid polymer electrolyte" Neha Gupta, MuneshRathore, SukritiKumari, ManupriyaVeerman and \*AnshumanDalvi International Journal of Physics and Mathematical Sciences ISSN: 2277-2111 (Online) An Online 2 (2012) 6-9.
16. "Structural relaxation at glass transition in Li<sub>2</sub>O-B<sub>2</sub>O<sub>3</sub> glassy ionic system" MuneshRathore and AnshumanDalvi AIP Conf. Proc. 1512, 554 (2013); doi: 10.1063/1.4791157.

17. "Electrical transport in  $\text{Li}_2\text{SO}_4\text{-Li}_2\text{O-P}_2\text{O}_5$  glassy ionic system in thermally unstable region" MuneshRathore, Neha Gupta, HimanshuTyagi, AdityaKashi and \*AnshumanDalvi International Journal of Physics and Mathematical Sciences ISSN: 2277-2111 (Online) An Online 2 (2012) 10-13.
18. "Electrical Transport and structural investigations in  $\text{Cu}_2\text{O}$  substituted  $\text{AgI-Ag}_2\text{O-V}_2\text{O}_5$  glass-ceramic nanocomposites" Neha Gupta and AnshumanDalvi presented in DAE solid state Physics Symposium 2011 SRM University, Kattankulathur TN, December 19-23, 2011. to be published in AIP conference proceedings. AIP Conf. Proc. 1447, 601 (2012); doi: 10.1063/1.4710147.
19. "Enhanced electrical transport in ionic liquid dispersed TMAI-PEO solid polymer electrolyte" Neha Gupta, MuneshRathore, AnshumanDalvi, Anil Kumar accepted for DAE Solid State Physics symposium 2013 presented in DAE Solid State Physics symposium 2013 to appear in AIP conf. proceedings in 2014.
20. " $\text{Li}_2\text{SO}_4\text{-Li}_2\text{O-P}_2\text{O}_5$  Ionic Glasses Dispersed with [Bmim] [PF<sub>6</sub>] Ionic Liquid: Electrical Transport and Thermal Stability Investigations" MuneshRathore, AnshumanDalvi, Anil Kumar presented in DAE Solid State Physics symposium 2013 to appear in AIP conf. proceedings in 2014.

### DISCIPLINE ASSOCIATION WORK HIGHLIGHTS

The Physics Association celebrated **Science Day** on 28<sup>th</sup> February, 2013, in collaboration with other Science associations. Two events: "*Quizzometry*" (a Science Quiz) and a "*Treasure Hunt*" were organized for the students of BITS. There was a Documentary Screening named as "SCINEMA", about the life of an ultimate genius, R.R. Rife. In addition, they also organized a science quiz competition for the local school children. The events of the Science Day were concluded with a short valedictory function. The highlight of the function was an enlightening lecture on "*Mysteries of the Universe*" by Dr. TapomoyGuhaSarkar from the department of Physics, B.I.T.S. Pilani.

#### In APOGEE 2013, Physics Society organized three events, namely:

1. Physics of the Impossible: A quiz event consisting of questions involving paradoxes and apparently impossible video streamed phenomena.
2. Phy-Tac-Toe: This involved an innovative style of combining the popular game of tic-tac-toe and the quizzing sense involving questions mostly related to physics. Software was developed for the same, and questions were fed into the different slots of the tic-tac-toe layout.
3. Lab-Quiz: A quizzing event involving questions related to general laboratory experiments involved into undergraduate science laboratories. This event was organized in collaboration with biology and chemistry associations.

#### Department of Physics and Physics Society organized lectures viz.

1. Einstein's Miraculous Year-1905: A lecture delivered by Retd. Emeritus Prof. Ajoy K. Ghatak on Einstein's five papers published in 1905 and a basic derivation of  $E = mc^2$ .
2. A "Bohring" Lesson: Another lecture event delivered by Prof. V. D. Vankar on The story of atom in the Neil Bohr's days.

Physics Society has initiated a new publication for BITS Pilani, Pilani Campus namely Spectra, which is a newsletter aiming at providing latest know how in the active research fields in physics. It covered:

1. Astrophysics and Cosmology
3. Quantum Computation and Information
4. Semiconductor technology with Graphene

#### Astronomy Club

The Astronomy Club BITS Pilani was active throughout the year continuing with its tradition of popularizing astronomy. There were several lecture sessions and workshops organized throughout the year. The telescope-making workshop organized during APOGEE gained immense popularity. Several sky-watching sessions were held as well. These hugely popular sessions drew a crowd. A quiz session titled **Marooned** was organized during **APOGEE** and it attracted lot of audience.

With the help of the Physics professors the Astro Club also organized a series of lectures under the name of the lecture series 'Syzygy' with an aim to expose the larger BITS audience to areas of interesting research in Astronomy and Cosmology. This effort received a lot of good response from the community.

The newly procured CCD camera by the Physics department was extensively used for astro-photography. In addition, the astronomy club organized a number of intra-club discussion sessions on a variety of topics related to astronomy and astrophysics, including the latest developments in the field.

At the end, the club acknowledges the guidance and support it has received from the faculty-in-charge Dr. Biswanth Layek, Dr. C. B. Das and the entire faculty members of the department for all its activities.

## **AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

### **Students who have opted for higher studies**

1. Pratiksha Dongare got admission to TIFR for Ph.D. She had an all India GATE 2013 rank of 28.
2. Vijay Varma has been offered admission in University of Maryland, College Park, for Ph.D. in Physics.

## **FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION**

### **International Collaborations**

1. Dr. D. D. Pant has initiated collaboration with Prof. Hubert H. Girault, Swiss Federal Institute of Technology (EPFL), Switzerland in the field of Spectroscopy at the Surfaces of nanoparticles and at liquid-liquid Interfaces. The outcome of collaborative work has recently been published in "Journal of Nanoparticle Research".
2. Through International Network "European FP7-People-IRSES MsNano", Dr. Choubisa has established an international collaborative network with 8 institutes (2 from France, one each from Italy, Germany, Czech Republic, Russia, Japan and China) in which around 35 Researchers are participating for the span of 4 years starting from September 2012 to 2016.

### **Papers Published in refereed journals**

1. "Effect of functionalized carbon nanotube on electro-optic and dielectric properties of a liquid crystal", Manjuladevi V., Raj Kumar Gupta and Sandeep Kumar, Journal of Molecular Liquids (Elsevier), Vol 171, 60-63, 2012.
2. "Studies on Langmuir monolayer of tricycloquinazoline based disk-shaped liquid crystal molecules", Raj Kumar Gupta, Manjuladevi V., C. Karthik, Sandeep Kumar & K.A. Suresh, Colloids and Surfaces A: Physicochemical and Engineering Aspects (Elsevier), 410, 91-97, 2012.
3. "Liquid Crystals at Interfaces", Raj Kumar Gupta, and Manjuladevi V., Israel Journal of Chemistry (Wiley), Vol 52 (10), 809-819, 2012.
4. Tapomoy Guha Sarkar, Dhiraj Kumar Hazra. "Probing primordial non-Gaussianity: The 3D Bispectrum of Ly-alpha forest and 21-cm signal from the post reionization epoch" Journal of Cosmology and Astroparticle Physics, Volume 04, No. 002 (2013)
5. Tapomoy Guha Sarkar, Somnath Bharadwaj "Predictions for BAO distance estimates from the cross-correlation of Lyman-alpha forest and 21-cm emission" Journal of Cosmology and Astroparticle Physics, Volume 8, No. 023 (2013).
6. Tridev Mishra, Tapomoy Guha Sarkar, Jayendra N. Bandyopadhyay, "Thermal properties of a particle confined to a parabolic quantum well in two-dimensional space with conical disclination" Phys. Rev. E. 89, 012103 (2014).
7. G. Brodin, A. Holkundkar, M. Marklund, "Particle-in-cell simulations of electron spin effects in plasmas", J. Plasma Phys. 79, 377-382, (Jan 2013).
8. Amol Holkundkar, "Parallel implementation of three-dimensional molecular dynamic simulation for laser-cluster interaction", Phys. Plasma, 20, 113110 (Nov 2013).
9. Amol Holkundkar, G. Mishra, N. K. Gupta "Laser induced neutron production by the explosion of deuterium clusters", Phys. Plasma, 21, 013101 (Jan 2014).
10. Amar Singh, Navin Singh, "Phase Diagram of mechanically stretched DNA: The salt effect", Physica A: Statistical Mechanics & its Application, 392, 2052-2059 (2013)

11. "Synthesis, phase to phase deposition and characterization of rutilenanocrystalline titanium dioxide (TiO<sub>2</sub>) thin films", S.K. Gupta, J. Singh, K. Anbalangan, P. Kothari, R. R. Bhatia, P.K. Mishra, V. Manjuladevi, R.K. Gupta, J. Akhtar, *Applied Surface Science (Elsevier)*, Vol 264 (1), 737-742, 2013.
12. "Transparent ITO films for liquid crystal display application", V. Manjuladevi, Jitendra Kumar, Raj Kumar Gupta, *Rev. Adv. Sci. Eng. (American Scientific Publishers)*, Vol 2 (4), pg - 305-312, 2013.
13. "Highly repeatable multi level resistive switching characteristics of Au/TiO<sub>2</sub>/Ti memory device", D. Acharyya, A. Hazra, K. Dutta, R. K. Gupta & P. Bhattacharyya, *Semicond. Sci. & Technol, IOP*, Vol 28, pg 125001, 2013.
14. Color screening scenario for quarkonia suppression in a quasiparticle model compared with data obtained from experiments at the CERN SPS, BNL RHIC, and CERN LHC, P. K. Srivastava, M. Mishra, and C. P. Singh, *Phys. Rev. C* 87, 034903 (2013).
15. Bottomonium suppression at  $\sqrt{s_{NN}} = 2.76$  TeV using a model based on color screening and gluonic dissociation with collisional damping, S. Ganesh and M. Mishra, *Phys. Rev. C* 88, 044908 (2013).
16. On the spin interplay of the ejected electrons in the relativistic electron impact K-shell double ionization of atoms", R. Choubisa and M. Jain, *J. Phys. B* 46 185202 (2013).
17. Subhash Karbelkar, "Magnetic fields and Bohr's Quantization Rule", *Resonance- Journal of science education*, Vol. 18, No. 10, 932-947, October 2013.
18. Steady state and time-resolved fluorescence spectroscopy of quinine sulfate dication bound to sodium dodecylsulfate micelles: Fluorescent complex formation. Sunita Joshi and D. D. Pant, *Journal of Luminescence*, 145 (2014) 224-231.
19. Steady state and time-resolved fluorescence spectroscopy of quinine sulfate dication in ionic and neutral micelles: Effect of micellar charge on photophysics. Sunita Joshi, TejVarma Y and D. D. Pant, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 425 (2013) 59– 67.
20. Estimation of ground and excited state dipole moments of quinidine and quinidine dication: Experimental and numerical methods. Sunita Joshi, Rituparna Bhattacharjee, TejVarma Y and D. D. Pant, *Journal of Molecular Liquids* 179 (2013) 88–93.
21. Solvatochromatic shift of absorption and fluorescence spectra of 6-methoxyquinoline: Estimation of ground and excited state dipole moments. TejVarma Y, Sunita Joshi, and D. D. Pant, *Journal of Molecular Liquids* 179 (2013) 7–11.
22. Cyclic and Coherent States in Flocks with Topological Distance. B. Bhattacharjee, K. Bhattacharya and S. S. Manna, *Frontiers in Physics* 1 (2014) 35.
23. "Electrical transport in Li<sub>2</sub>SO<sub>4</sub>-Li<sub>2</sub>O-P<sub>2</sub>O<sub>5</sub> ionic glasses and glass-ceramic composites: A comparative study" Munesh Rathore, Anshuman Dalvi *Solid State Ionics* 239 (2013) 50-55.
24. "Structural and electrical transport studies in CuI substituted AgI-oxysalt glass- ceramic nanocomposites formed during crystallization" Neha Gupta and Anshuman Dalvi *Ind. J. Pure and App. Phys.* 51 (2013) 328-330.
25. "Electrical transport in Li<sub>2</sub>SO<sub>4</sub>-Li<sub>2</sub>O-B<sub>2</sub>O<sub>3</sub> glass-ceramic composites" Munesh Rathore and Anshuman Dalvi *Ind. J. Pure and App. Phys.* 51 (2013) 372-375.

**B1.11 DIVISION / UNIT / CENTER-WISE ACTIVITY HIGHLIGHTS****Faculty Affairs Division (FAD)**

Faculty Affairs Division (FAD) with its office in Pilani Campus is responsible for implementation of all Institutional policies related to faculty across all BITS campuses at Pilani, Goa, Hyderabad and also Dubai. The division deals with functions related to recruitment, promotions, retirement, extensions, appraisals, terms and benefits, of faculty. The activities of the Division for the year, in brief, is given below.

- 1. Faculty Recruitment:** Faculty recruitment is the prime activity of the Division at present. In the recruitment process, screening of applicants and all recruitment related logistics are carried out by partnering with a HR outsourcing company, PeopleStrong. Details of the offers made towards faculty positions, joining and acceptance details in the last year, is given below.

Position	Offered			Joined			Accepted			Declined			No Response		
	Pilani	Goa	Hyderabad	Pilani	Goa	Hyderabad	Pilani	Goa	Hyderabad	Pilani	Goa	Hyderabad	Pilani	Goa	Hyderabad
Professor	0	1	2	0	0	0	0	1	0	0	0	1	0	0	1
Associate Professor	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
Assistant Professor	24	12	23	19	9	12	0	1	2	5	2	9	0	0	0
Lecturer	1	1	10	1	1	7	0	0	0	0	0	3	0	0	0
Sub-Total	25	14	36	20	10	19	0	2	3	5	2	13	0	0	1
<b>Total</b>	<b>75</b>			<b>49</b>			<b>5</b>			<b>20</b>			<b>1</b>		

Recruitment process for Dubai Campus has also been chalked out and recruitment drive is under process. Discussions regarding revision of terms, conditions of employment, facilities and benefits are underway.

- 2. Faculty Performance Appraisals:** Performance assessment of all the faculty in different academic departments across all three campuses are being carried out on an annual basis. Contributions in three key performance areas, namely:- (i) teaching, (ii) research, and (iii) institutional contribution are assessed. As part of the process, performance of the faculty are assessed at the end of the academic session against goals set by them at the beginning of the session. The assessments include self-appraisal, appraisal by the Head of the respective departments in consultation with the respective faculty, and/ or Divisional Dean, which is then followed by a Cross Campus committee assessment and then by University Level committee. On the basis of appraisals, feedback has been given to the faculty and outputs of the appraisals also form an integral basis for promotions.
- 3. Promotions:** On the basis of performance appraisals and other additional inputs received and criteria set, several promotions have been made in this year. The details of the promotions are provided below:

S.No.	Present Designation	Promoted to	No. of Faculty			
			Pilani	Goa	Hyderabad	Total
1.	Professor	Senior Professor	2	-	1	3
2.	Associate Professor	Professor	9	2	5	16
3.	Assistant Professor	Associate Professor	25	13	11	49

4. **Industry Immersion:** A new scheme to provide exposure of faculty to an industry with a view to provide them with an opportunity to gain first-hand exposure to processes undertaken by companies for design, manufacturing, marketing, logistics; gain an understanding of how theory learnt in classrooms is translated into practice on the job floor; gain an understanding of technical challenges that companies face in respect of improved design, scaling up their operations, impact on environment, manpower, etc. The following Faculty visited the industries as per details below:

S.No.	Faculty's Name	Department	Campus	Industry Visited	Duration of the Visit
1	Dr. A. Sajeli Begum	Pharmacy	Hyderabad	Sami Labs Ltd., Bangalore	30th May to 12th June 2013
2	Dr. Pravinkumar M. Singru	Mechanical	Goa	Tata Technologies Ltd., Pune	1st June to 30th June 2013
3	Dr. M. Srinivas	Mechanical	Hyderabad	Tata Technologies Ltd., Pune	1st June to 30th June 2013

5. **University Immersion:** Under the new scheme, BITS supports faculty members to spend a few weeks at a University abroad. During such exposure to universities abroad, it is expected that faculty members will (among others): (i) gain first-hand exposure to current/latest advances in research, etc., (ii) gain an understanding of lab resources required to initiate research or to use (or to program) equipment, (iii) gain an understanding on how classroom- or lab-based instruction is organized or imparted, AND/OR, (iv) gain an understanding of research methodology, cross-disciplinary collaboration, or collaboration across institutions, etc.

Few Faculty utilized this opportunity, as per details given below:

S. No.	Faculty's Name	Department	Campus	University Visited	Duration of the Visit
1	Dr. Subhendu Kumar Sahoo	Electrical & Electronics Engineering	Hyderabad	Nanyang Technological University, Singapore	31st May to 16th July 2013
2	Dr. Rajesh Prasad Mishra	Mechanical Engineering	Pilani	University of Tennessee, USA	20th May to 27th July 2013
3	Dr. Shrikant Y. Charde	Pharmacy	Pilani	University of Minnesota, USA	20th May to 14th July 2013
4	Dr. Judith Maria Braganca	Biological Sciences	Goa	Goethe University, Germany	3rd June to 14th July 2013

6. **FAD Website:** Guidelines regarding operations, terms and conditions, facilities and benefits, joining formalities, policies and opportunities for faculty have been created and posted on the BITS University website. In addition, terms and conditions, policies governing appointments and benefits applicable for non-teaching staff was also posted on University website.
7. Apart from attracting and selecting, talented and competent people, the division is also intensely focused on retaining the talent. Several staff welfare measures, relook on compensation and benefits, policies related to career growth and related guidelines, health and family welfare, housing, rewards and recognitions are under discussion.

8. As many of these activities fall in line with core human resource activities, it is also proposed to create a human resource centre / office in the near future, which is under discussion.

## Practice School Division

### University-Industry Linkages

An important aspect of education at BITS is its institutionalized linkages with the world of work. The Institute attaches great importance to the University-Industry Linkages and gives mutually reinforcing thrust to it through various avenues like Practice School (PS), Work Integrated Learning Programmes (WILP), Technology Innovation Centre (TIC) and off-campus Ph.D.

### Practice School Programme

All integrated first degree and higher degree programmes of the Institute provide for a Practice School option. The past statistics show that almost all the students admitted, opt for this programme. During the calendar year 2013 the Practice School programme was operated at 497 stations, with 12 stations hosting both Practice School-I (PS-I) and Practice School-II (PS-II), accommodating 4355 students and 137 faculty members. Categorization of PS stations is given below:

S.No.	Categories of Organizations	No. of Organization in	
		PS-II & PS for Higher Degree	PS-I
1.	Banks and other Financial Institutions	20( 18)	3( 3)
2.	Design, Development, Consultancy and Software Organization.	203(219)	26( 24)
3.	National Research Laboratories and other Research centers	36( 42)	26( 28)
4.	Production, Manufacturing and Public Work Units	70( 53)	118(124)
5.	Publishing Houses, News Agencies and Museums	2( 8)	5( 4)
	<b>Total</b>	<b>331(340)</b>	<b>178(183)</b>

In 2013, an integrated practice school allotment for 4355 students was carried out across Pilani, Goa and Hyderabad campuses. The statistical details of the centre-wise distribution of students and faculty at PS-I stations are given in Annexure '7' followed by the details of the Operational Statistics of PS-II and PS for higher degree in Annexure '8'. Growth statistics of PS-I, PS-II and PS for higher degree are given in Annexure '9', while facilities available at various PS-II stations are given in Annexure '10'.

Following is the break up of students who were registered in PS-I, PS-II & PS for Higher Degree:

PS-I	Summer Term 2012-2013	(2036) 2081
PS-II	II Semester 2012-2013	(857) 931
	I Semester 2013-2014	(1118)1125
PS for Higher Degree		
	II Semester 2012-2013	(230) 216
	I Semester 2013-2014	(72) 02

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**Total (4313) 4355**

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Note: The figures shown in brackets relate to the year 2012.

### PS-II Assignments: Institute's Contribution to Industrial Development



Apart from developing skills in professional judgment, data-handling, documentation, decision making ability, etc., in students, the PS-II assignments also relate to real-life problems of the host organizations. PS-II assignments listed in *Annexure '11'* were completed by the final year students at their respective PS-II stations during the year 2013. These assignments directly contribute to the requirements of industrial R & D by fulfilling the ongoing production, modernization, design, development and research needs of the participating industries.

During the year under review 2081 students of Pilani (842), Goa (605) & Hyderabad (634) campuses accompanied by 74 faculty members attended Practice School-I and 2274 students attended Practice School-II. The entire Practice School-II operations were supervised by 63 faculty members residing at the respective locations. For the year 2013, 106 dual degree students have exercised their option of Practice School for both the degrees.

In appreciation of the contribution made by our students towards the professional well-being of the organizations, a stipend/out-of-pocket allowance is paid to them by the organizations. The amount of stipend/out-of-pocket allowance has over the years increased, and today the maximum amount paid is Rs. 40,000/- p.m. at eBay India Development Centre, Bangalore. The average stipend is around Rs.16, 000/- p.m. per student. In addition, other facilities like accommodation, subsidized lunch, to & fro travel, etc. are also provided by some of the organizations. Students are paid TA & DA as per the rules of the organization. All overseas organizations pay for to & fro air travel and health insurance in addition to stipend.

During the year under review, the PS activities grew further with the introduction of 110 new PS-II stations (Table 1) and out of pocket allowance was increased at 08 PS-II stations (Table 2).

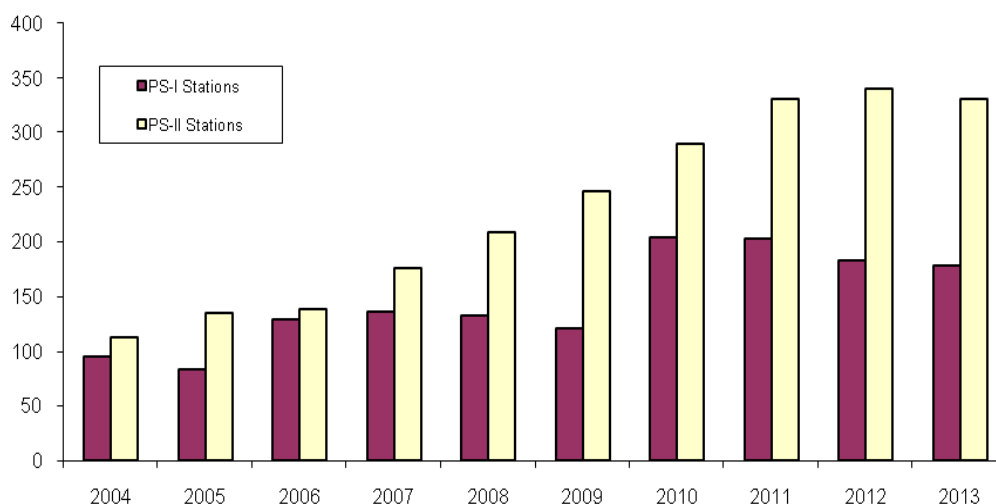


Table 1

## PS-II Stations Added during the Year 2013

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)
<b>AURANGABAD</b>		
1.	Skoda auto India Pvt. Ltd.	Rs.8,000/- p.m.
<b>BANGALORE</b>		
2.	Azul Systems	Rs.25,000/- p.m.
3.	Bosch	Rs.15,000/- p.m.
4.	Bionees	Rs.6,000/- p.m.
5.	CIREL Systems	Rs.20,000/- p.m.
6.	Dassault Systems India Pvt. Ltd.	Rs.30,000/- p.m.

<b>S.No.</b>	<b>PS-II Station</b>	<b>Out of pocket Allowance (Rs. Per Month)</b>
7.	Derrick Petroleum	Rs.20,000/- p.m.
8.	Global Logic +	Rs.15,000/- p.m.
9.	India Drivers Network	Rs.12,000/- p.m.
10.	Informatica Business Solutions Pvt Ltd	Rs.30,000/- p.m.
11.	InMobi	Rs.20,000/- p.m.
12.	iRunway	Rs. 15,000/- p.m.
13.	ITW	Rs.10,000/- p.m.
14.	Ixia Technologies	Rs.17,000/- p.m.
15.	MaxHeap Technologies Pvt Ltd	Rs.12,000/- p.m.
16.	Media Iq Digital	Rs.20,000/- p.m.
17.	MyParichay Services Pvt. Ltd.	Rs.22,000/- p.m.
18.	Nabler Websolutions Pvt Ltd	Rs.15,000/- p.m.
19.	NextGen PMS	Rs.12,000/- p.m.
20.	NetSkope Software India Pvt. Ltd.	Rs.36,000/- p.m.
21.	Optumsoft Research Pvt Ltd	Rs.27,000/- p.m.
22.	Playdom India Pvt. Ltd.	Rs.30,000/- p.m.
23.	Polycom Technology (R&D) Centre Pvt. Ltd.	Rs.15,000/- p.m.
24.	Practo Technologies Pvt. Ltd.	Rs.20,000/- p.m.
25.	Raxa Security Services Ltd	Rs.15,000/- p.m.
26.	RedSeer Consulting	Rs.10,000/- p.m.
27.	SAMSUNG India Software Operations	Rs.25,000/- p.m.
28.	Shell	Rs.20,000/- p.m.
29.	Satvva Media & Consulting Pvt Ltd	Rs.10,000/- p.m.
30.	Skoda Auto India Pvt. Ltd.	Rs.14,000/- p.m.
31.	Tangoe India Softek Pvt Ltd	Rs.25,000/- p.m.
32.	TAS Analytic Services	Rs.12,000/- p.m.
33.	Tune Patrol Media Labs Pvt. Ltd.	Rs.5,000/- p.m.
34.	Walmart Global Technology Services	Rs.30,000/- p.m.
35.	Wadhani Foundation	Rs.10,000/- p.m.
<b>CHENNAI</b>		
36.	Amazon Development Center	Rs.30,000/- p.m.
37.	Behr India Ltd	Rs.5,000/- p.m.
38.	Central Scientific Instruments Organisation	NIL
39.	Deloitte Consulting India Pvt. Ltd	Rs.12,000/- p.m.
40.	Healthcare Technology Innovation Centre (HITC)	Rs.20,000/- p.m.
41.	M M Imagine Technologies, Pvt. Ltd	Rs.10,000/- p.m.
42.	National Metallurgical Laboratory	NIL
43.	Takata India Pvt. Ltd	Rs.5,000/- p.m.
<b>COIMBATORE</b>		
44.	ELGI Instruments	Rs.8,000/- p.m.

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)
<b>DAHEJ (GUJARAT)</b>		
45.	Tega Industries SEZ Ltd	Rs 15,000/-p.m.
<b>DELHI</b>		
46.	Deloitte Consulting India Pvt. Ltd	Rs.12,000/- p.m.
47.	Framebench technologies	Rs.15,000/- p.m.
48.	Value Edge India	Rs.15,000/- p.m.
<b>FARIDABAD</b>		
49.	Rite Infotech Pvt. Ltd	Rs.14,000/- p.m.
<b>GWALIOR</b>		
50.	Teva Api India Limited	Rs.5,000/- p.m.
<b>GURGAON</b>		
51.	Aurum Equity Partners	Rs.15,000/- p.m.
52.	Bharti Soft Bank	Rs.25,000/- p.m.
53.	Jabong	Rs.20000 (Operations), 25000 (IT)
54.	Hughes System Corporation	Rs.8,000/- p.m.
55.	Mahle Filters India Ltd	Rs.5,000/- p.m.
56.	Sagacious Research	Rs.8,000/- p.m.
57.	Skoda Auto India Pvt. Ltd.	Rs.14,000/- p.m.
58.	WCG Robotics	Rs.5,000/- p.m.
59.	Zapr	Rs.30,000/- p.m.
<b>HOSUR</b>		
60.	FTRTIL	Rs.5,000/- p.m.
61.	Gabriel India Ltd	Rs.5,000/- p.m.
<b>HYDERABAD</b>		
62.	Areca Embedded Sys Pvt. Ltd	Rs.6,000/- p.m.
63.	Ducere Technologies Pvt. Ltd.	Rs.25,000/- p.m.
64.	Divami Software Pvt ltd	Rs.16,000/- p.m.
65.	EA Games	Rs.16,000/- p.m.
66.	Global E Procure	Rs.12,500/- p.m.
67.	Informatica Business Solutions Pvt Ltd	Rs.30,000/- p.m.
68.	ITW India Limited	Rs.10,000/- p.m.
69.	Integrated Cleanroom Technologies Ltd.	Rs.10,000/- p.m.
70.	My smart price	Rs.20,000/- p.m.
71.	Nuevosol Energy Pvt. Ltd.	Rs.9,000/- p.m.
72.	Orvito Inc	Rs.8,000/- p.m.
73.	Sales Force	Rs.20,000/- p.m.

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)
74.	Sandilya Consulting Engineers	Rs.5,000/- p.m.
75.	Silicon Image R&D Pvt Ltd	Rs.20,000/- p.m.
76.	Steel Wedge Technologies Pvt. Ltd.	Rs.17,000/- p.m.
77.	Vidcentum R & D Pvt. Ltd	Rs.10,000/- p.m.
78.	Xilinx	Rs.20,000/- p.m.
79.	Yardstick	Rs.5,000/- p.m.
<b>JAIPUR</b>		
80.	KEC International +	Rs.6,000/- p.m.
81.	Stellarix Consultancy Services Pvt Ltd	Rs.10,000/- p.m.
<b>MUMBAI</b>		
82.	Dolat Capital	Rs.17,000/- p.m.
83.	eClerx	Rs.15,000/- p.m.
84.	Ernst & Young	Rs.15,000/- p.m.
85.	J.P. Morgan Services India Pvt. Ltd	Rs.25,000/- p.m.
86.	MSCI Financial Planning & Analysis	Rs.30,000/- p.m.
87.	Pristine	Rs.25,000/- p.m.
88.	Saavn Media Pvt. Ltd.	Rs.30,000-35,000/- p.m.
89.	Skoda Auto India Pvt. Ltd.	Rs.14,000/- p.m.
<b>NAGPUR</b>		
90.	Global Logic +	Rs.15,000/- p.m.
91.	KEC International +	Rs.6,000/- p.m.
92.	Mahindra & Mahindra Ltd.	Rs.10,000/- p.m.
<b>NOIDA</b>		
93.	Global Logic	Rs.15,000/- p.m.
94.	Nucleus Software Export Ltd	Rs.10,000/- p.m.
95.	Synopsis	Rs.20,000/- p.m.
<b>PILANI</b>		
96.	BITS Pilani Project Office (Shapoorji & Pallonji Co. Ltd.)	Rs.10,000/- p.m.
<b>PUNE</b>		
97.	AutoDesk	Rs.15,000/- p.m.(FD) Rs.20,000/- (HD)
98.	Behr India Pvt Ltd	Rs.5,000/- p.m.
99.	Bentley Systems	Rs.12,000-15,000/- p.m.
100.	eClerx	Rs.15,000/- p.m.
101.	IDeaS - SAS	Rs.30,000/- p.m.
102.	ITW India Ltd.	Rs.10,000/- p.m.
103.	LOREAL India Pvt. Ltd.	Rs.12,000/- p.m.

S.No.	PS-II Station	Out of pocket Allowance (Rs. Per Month)
104.	Mahle Filters India Ltd	Rs.5,000/- p.m.
105.	Megatech Power Equipments Pvt. Ltd.	Rs.12,000/- p.m.
106.	Nvidia Graphics Pvt. Ltd.	Rs.25,000/- p.m.
107.	Skoda Auto India Pvt. Ltd.	Rs.12,000/- p.m.
108.	Tata Technologies +	Rs.12,000/- p.m.
109.	True Sparrow	Rs.25,000/- p.m.
<b>SIRSI</b>		
110.	Divgi Warner (P) Ltd.	Rs.10,500/-p.m.

Table 2

#### Increase in Monthly Stipend at PS-II Stations during the Year 2013

S.No.	PS-II Stations	Monthly Stipend / out of pocket allowance	
		During 2012	During 2013
1	eBay India Development Centre, Bangalore	Rs. 20,000/- p.m.	Rs. 40,000/- p.m.
2	Philips Research Ashi, Bangalore	Rs.15,000/-p.m.	Rs.18,000/-p.m.
3	Weir Enginnering Services(I)Ltd.Bangalore	Rs.7,000/-p.m.	Rs.7,500/-p.m.
4	Zinnov Management Consulting Pvt .Ltd.Bangalore	Rs.18,000/-p.m.	Rs.20,000/-p.m.
5	Slave Technologies Pvt.Ltd.Hyderabad	Rs.12,000/-p.m.	Rs.12,000-15,000/-p.m.
6	Thomas & Betts India Pvt.Ltd.Hyderabad	Rs.8,000/-p.m.	Rs.8,960/-p.m.
7	GEIPER Consulting Ltd.Noida(Delhi)	Rs.5,000/-p.m.	Rs.12,000/-p.m.
8	Atul Ltd.Valsad	Rs.5,000/-p.m.	Rs.8,000/-p.m.

#### PS Planning

The preparation for running Practice School courses starts almost one year in advance at the PS Division. The process of preparation of student profile, analysis of student preferences and the student allotment for Practice School courses is completely computerized.

#### PS Instruction Monitoring

After successfully working with COPSIMS for a number of years, PS Instruction Monitoring has now introduced WEPSIMS (Web Enabled Practice School Instruction Monitoring System). It is an online web enabled tool for an efficient and quick data entry, data retrieval and data management. It is efficiently used for automatic letter generation, evaluation and grading for PS I and PS II and student feedback. PS Division makes constant efforts to maintain and increase the efficiency of instruction monitoring.

#### Students' Involvement in PS Division-based Projects

The PS Division of the Institute has continued to involve students in analysis, documentation, and educational research-based activities of the Division through projects based on Organizational Aspects, Computer Project, First Degree Thesis and Higher Degree Dissertation. In this regard PS Division has involved students in the following Division-based projects:

1. Development of software related to students and faculty allotment; maintenance of zonal and data analysis related to allotment of students at various stations; modification of the already developed allotment modules.
2. Computerization of PS accounts processing.

3. Development and maintenance of web based tools for instruction to PS II faculty; development and modification of software modules for grade and feedback analysis.
4. BITS Pilani offers scholarship of Rs. 44,000/- (for the entire duration of PS-II) to selected PS-II students with CGPA 7.00 and above at various research organizations.

## Academic Research

### First Degree Thesis

During the year, 339 First-Degree thesis projects have been completed. The list of some of the completed First-Degree thesis during Second Semester 2012-2013 and First Semester 2013-2014 is given in *Annexure 'B1-10'*.

### Higher Degree Dissertation

During the year, 206 Higher Degree dissertation projects have been completed. The list of some of the completed Higher Degree dissertations during Second Semester 2012-2013 and First Semester 2013-2014 is given in *Annexure 'B1-11'*.

## Ph.D. Programme

### (a) Award of Ph.D. Degree

S.No.	Name	Title
1.	Diploy Dutta	Experimental and Theoretical Studies on Reactive Extraction of Carboxylic Acids
2.	Raju V N N Ponalluri	Traffic Management, Road Safety, and Public Transport Issues in Urban India
3.	K. Nageswara Rao	Molecular Genetic Analysis of Intraocular Pressure (IOP)-Related Glaucomas in Indian Population
4.	Susheela Venkataraman	Going Global Successfully : In Search of Strategies for Emerging Indian Multinational Companies
5.	Nitin Upadhyay	Concurrent Modeling, Analysis and Design of Component Based Software System
6.	Thoudem Regina Devi	Genetic Analysis and Gene Expression Profile in Gastic Cancer in High-risk Northeast Region of India
7.	Selvi R.	<i>In vitro</i> Studies on the Mechanism of Glucose Lowering Effect of Amino Acids in CHO-K1 and Adipocytes and <i>In Vivo</i> Studies on the Amelioration of Molecular Changes in Retina of Streptozotocin Induced Diabetic Sprague Dawley Rats
8.	Praveen Ranjan Srivastava	Quantitative and Qualitative Analysis of Software Testing
9.	Jai Prakash Bhamu	Development and Validation of Lean Manufacturing Drivers, Barriers and Framework with a Focus on Ceramic Industry
10.	Dhirendra Singh	Gene Expression Profiling and Genetic Variations in Oral Cancer Associated with Tobacco Consumption
11.	Sowmiya M.	Nucleic Acid Based Techniques for the Detection and Identification of Drug Resistance Among Ocular Bacterial Pathogens
12.	Nihita Goel	Synthesis and Runtime Monitoring of Business Process Workflows
13.	Satyanandra Kumar Sharma	An Empirical Investigation of Supply Chain Risk Management Practices in Indian Automobile Industry and Development of a Normative Framework
14.	Rupesh Kumar Mishra	Development of Novel Biosensing Micro Techniques for Analysis of

S.No.	Name	Title
		Pesticide Residues and Heavy Metals in Water and Milk
15.	A.V. Ramani	Thiazine Derivatives Synthesis, Anti Tubercular Activities and Basic Pharmacokinetic Evaluation
16.	Monika Sharma	Design and Synthesis of Leads based on Pharmacophore Hybrid Integration Approach for the treatment of Neuropathic Pain
17.	Deepak Pakalpati	Studies on Molecular Detection of Malarial Parasites
18.	Biju Benjamin	Novel Methodology Integrating Experimental ADME and Physicochemical Data for Rational Lead Optimization Using Selected Clinical Compounds
19.	Nihita Goel	Synthesis and Runtime Monitoring of Business Process Workflows
20.	Anand K.	Exploring the Relationship between Organizational Identification, Leadership Orientation and Management's Peripheral Vision: A Study of Knowledge Workers Perceptions.
21.	Ajay Kumar Sharma	Epidemiological Study on HIV and AIDS Affected Population in North India
22.	S. Vandhana	Targeting Lipogenesis in Retinoblastoma Evaluation of Chemical Inhibitors of Fatty Acid Synthase (FASN) As Anti-Cancer Agents
23.	Swadhinya A.	Regulation of In Vivo Anti-Polysaccharide Responses to Intact Gram-Positive and Gram Negative Extracellular Bacteria
24.	Akhilesh Tripathi	A Model Framework for Measuring the Managing Operational Risks in Treasury Operations in Financial Institutions
25.	Oberoi Ajay Omprakash	'OASIS' : A Comprehensive Approach to Performance Management with Focus on Knowledge Workers – A Case Study
26.	Subhash Gaddipati	Characterisation of Cultured Oral Mucosal Epithelial Cells and the Outcome after Autologous Transplantation of Diseased Ocular Surface
27.	Aparajita Sharma	Development of Training Modules to Build Requisite Managerial Competencies of Middle-level Managers in the General Insurance Sector
28.	Manoj Kumar Dutta	Design and Performance Analysis of Contention Resolution Techniques in Optical WDM Network
29.	Dilip Kumar Mohanty	Estimation and Prediction of Fouling Behaviour in a Shell and Tube Heat Exchanger
30.	Navneet Khanna	Selected Experimental Studies on Machinability of Ti54M, Ti10.2.3, Ti5553 and Ti6Al4V Titanium Alloys
31.	Anurup Mitra	Exploratory Studies in Parameter Determination for High Quality Hindi Speech Generation using the Klatt Synthesiser
32.	Y. Samson Moses	Detection of Novel Mutations in UL23 Gene of Herpes Simplex Virus and UL97 Gene of Human Cytomegalovirus Conferring Drug Resistance and Evaluation of pp <sup>65</sup> Antigenemia Assay
33.	Vikas Vats	Modulation of Immune Response by Epithelial Cells During Chlamydia trachomatis Infection
34.	P.B. Ahamed Mohideen	Breakdown Maintenance Management (BMM) Model for Construction Machinery - United Arab Emirates Perspective
35.	Rahul Singhal	Design, Fabrication and Characterization of Thin-Film Polymeric Optical Splitters
36.	T. Seethalakshmi	The Anti-tumor Effects and Mechanisms of Curcumin in Human Retinoblastoma Cell Lines

S.No.	Name	Title
37.	Arun T.S.	Information Quality Strategy - An Empirical Investigation of the Relationship between Information Quality Improvements and Organizational Outcomes
38.	Pawan Kumar Tiwari	A Comprehensive Analysis of the Transcriptome in Human Colorectal Cancer Cells Lacking DNA Methyltransferases
39.	Vasundhra Bhandari	Studies on Drug Susceptibility of Indian Leishmania donovani Isolates to Paromomycin
40.	Paridhi Gupta	Host Responses Associated with Pathogenesis of Venezuelan Equine Encephalitis Virus in Mice and Evaluation of a Novel Approach to Generate Inactivated Virus Vaccines
41.	Shaifali Gurjar	Screening and Mechanism based Study for the Use of Natural Products for Treating Obesity
42.	Prashant G.J.	A Study on Pharmacological Induction of Heat Shock Protein 70 as a neuroprotective Strategy for the Treatment of Stroke
43.	Navneet Upadhyay	Transform Based Multi-Band Speech Enhancement Algorithms
44.	Arun Kumar Vaish	Development of a Credit Scoring Methodology for Assessment of Micro-finance Borrowers
45.	Mubeena Rahaman	Significance of Written English in Business Communication : An Analytical Study with Reference to Star Hotels of Dubai
46.	Mishi Kaushal	Contribution of Putative Susceptibility Genes and Genomic Alterations in the Occurrence of Breast Cancer

**(b) Ph.D. Thesis Submitted and Under Process of Evaluation**

S.No.	Name	Title
1.	Ramesh S. Ve	Longitudinal Assessment of Optic Nerve Head Progression in Glaucoma: A population Based Study
2.	S. Vasanthakumar	Design, Characterization and In-vitro, In-vivo Evaluation of Paclitaxel Loaded Nanoparticulate System
3.	Vishal Gupta	Improved Beacon-Stuffing and Quantification of Criticisms in Analytic Hierarchy Process for Infrastructure WLANs
4.	Virendra Singh	Design and Development of Performance Enhancement Techniques in Optical WDM Networks
5.	Rakhshan Ihsan	Genetic and Epigenetic Alternatives in Lung Cancer Associated with Tobacco Exposure
6.	Meena Purohit	Design and Synthesis of Small Molecule Probes Targeting Malaria, Diabetic, Neuropathy and Thrombocytopenia
7.	Anindita Banerjee	Relationship between Preparation and Performance Across Emerging and Traditional Contexts of Intercultural Work Assignments : An Empirical Study
8.	Nitin Sharma	Resource Allocation in Downlink Ofdma Systems: An Evolutionary Approach
9.	Manoj Kumar	Design and Performance Analysis of Contention Resolution Techniques in Optical WDM Networks
10.	Dilip Kumar Mohanty	Estimation and Prediction of Fouling Behaviour in a Shell and Tube Heat Exchanger



S.No.	Name	Title
11.	Shailendra Priyadarshi	A Strategic Plan for Effective Health Services - A Study for Sashastra Seema Bsal
12.	A. Santhana Krishnakumar	Development off Novel and Suitably Tailored Adsorbents for Chromium and Mercury Detoxification
13.	K. Vinayak	An Investigation of Innovative Product Development Practices in Indian Manufacturing Industry
14.	P.V. Suresh	Connection-Oriented Architecture Framework for Enterprise class Web Services on Multi Core Servers
15.	M. Mallika	Development of Human Silent Information Regulator (HSIRT 1) Modulators for Treatment of Cancer and Metabolic Disorders
16.	K. Jeylatha	Design, Analysis and Implementation of Algorithms for Web Mining Support Functions
17.	Rajput Amit Bal Singh	Preparation and Characterization of LLDPE-Polybenzoxazine-Ferrite Nanoparticle based Flexible Magnetic Nanocomposites
18.	Vilas S. Desai	Synthesis of Sol-gel based Tatanium dioxide Photocatalyst : Investigations on their Modification, Interaction with Metal Ions and Antimicrobial activity
19.	Chaudhari Vikas Vinayak	Experimental and Computational Investigations on Fracture Behaviour of Extra Deep Drawn Steel Sheets in General Yield Regime
20.	Varinder Singh	Study of Restructuring Decisions and Complexity of Lean Manufacturing System
21.	Maheshwari Dwivedi	Modeling and Assessment of e-waste Management issues in India : Generation, Flows and Extended Producer Responsibility
22.	Meghana Shrikant Charde	An Experimental Study of Designed Passive Elements for Energy Efficiency in Buildings in Composite Climate
23.	Manisha Dixit	A Critical Analysis of the Media Practices in India for Television Reality Shows : An Audience Driven Approach
24.	Lizy Kanungo	Development of Novel Biosensing Techniques for Analysis of Aflatoxins in Food Products
25.	Sushil Chandra	Development of Industrial Design Relationship between Aesthetic and Engineering Parameters in Context of Design and Development of Motorcycles.
26.	Manish Bhomia	Role of MicroRNAs in Pathogenesis of Venezuelan Equine Encephalitis Virus and Development of Antiviral Strategies
27.	Urvashi Dube	Identification of Genetic Loci Associated with Risk for Type 2 Diabetes Mellitus (T2DM) in Indians from Rajasthan
28.	Kiran D. Mali	Vibration Analysis of Perforated Plates
29.	Saktivel Murugan S.M.	Genetic Diagnosis, Prevention and Molecular Pathophysiology of Duchenne Muscular Dysrophy and Non-Invasive Diagnosis of Familial Neuromuscular Disorderes
30.	Amit Kumar Tiwari	Study on Aggregation Behavior and Thermodynamics of Micellization of Some Cationic Gemini Surfactants Using Fluorescence and Conductometric Methods
31.	Poonam Vyas	A Comparative Study of Traditional and Multimedia Supported Techniques for Imparting Communication Skills at the Tertiary Level

S.No.	Name	Title
32.	Rajesh Purohit	Investigations on Alkaline Earth Sulphide Phosphors Activated by Copper for Fluoro-optic Temperature sensing
33.	Thomas Joseph	Application of Conjoint Analysis to the Fuzzy Front End of a Product Design: A Case Study of the Indian Auto Industry
34.	Nikhil Prakash	Kinetic Modeling and Simulation of Metallocene Catalyzed Olefin Polymerization
35.	Vidya Prabhudesai	Anaerobic Digestion of Food Waste in a Horizontal Plug Flow Reactor
36.	Sunil Kumar Dubey	Pharmacokinetics and Biodistribution Studies of Selected Racemic Drugs
37.	Venkatasai Jyothi Aluru	Proteomic Profiling of Tear Fluid for Potential Biomarker Discovery in Dry Eye Syndrome
38.	Manoj Kumar	Design Strategies for Multiplayer Gaming on Embedded Platforms Using Wireless Networks
39.	Varinder Kumar Mittal	Development and Validation of Drivers for Barriers to and Stakeholders of Green Manufacturing
40.	Kiran Soni	Synthesis of Novel Ligands Containing Saccharide and Amino Acids : Reactivities of the Resultant Molecules
41.	Zubeda Bi Haider Aga	Synthesis and Characterization of Nano Sized Pure and Doped Barium Titanate Powders Prepared by Sol-gel-Emulsion Techniques
42.	Mishra Bhupendra Ashok	Synthesis and Photocytotoxicity Studies of Some Novel Porphyrin Heterocycles
43.	K.P. Chandra Sekhar	Synthesis and Biological Studies of Some Novel Porphyrin Appended Heterocycles.
44.	Indukuri Bhaskara Raju	Health Care Utilization in Relation to Socio-Economic Status in Rural and Urban Areas of Andhra Pradesh
45.	Asati Patra	Dynamics of Biological Species : Some Mathematical Models
46.	V. Kameswara Rao	Metal Triflate Mediated Synthesis of Selected Biologically Active Heterocyclic Compounds
47.	Pradhan Sudeep Kumar	An Integrated Approach for Design of Supply Management : A Supply Chain Management

### Ph.D. Aspirant's & Part-Time Ph.D. Scheme

This scheme has attracted candidates from industry, R&D, education and entrepreneurial sectors towards the Ph.D. programme of the Institute. A number of candidates have been permitted in this year to appear in the Ph.D. qualifying examination (details in *Annexure 'B1-12'*). Topics of research identified by these candidates are of relevance to the organization and the society as a whole. Association of many such candidates and their supervisors has given the academic benefits to the on going students through special lectures delivered by them.

**Ph.D. Qualifying examination:** A number of Ph.D. candidates of aspirants, faculty development scheme and students category numbering 180 were permitted to appear in the Ph.D. qualifying examination in the year 2013.

### Sponsored Research Projects

A total of One Hundred Forty Four (144) research projects sponsored by agencies such as UGC, CSIR, DST, DBT, ICMR, DRDO, ICAR and such other sponsoring agencies are in operation. A list of on-going research projects is given below:

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
1.	Synthesis and detailed characterization of 'ship-in-a-Bottle' complexes inside the microporous and mesoporous material	Dr. Saumi Ray	DST	20.00
2.	Syntheses of efficient and pure blue triplet emitting materials for fabrication of white organic light emitting diodes (WOLEDs)"	Dr Inamur R Laskar	DST	22.17
3.	Design and Synthesis of Novel Bioactive Heterocycles as Anticancer	Dr Dalip Kumar	CSIR	13.58
4.	Novel Synthetic Methodologies for Biologically Important Compounds using Lanthanide Triflates as Lewis Acids in Ionic Liquids	Dr. Anil Kumar	UGC	08.77
5.	Development of a novel synthetic route for an anti-HIV drug	Dr. Dalip Kumar Dr. Anil Kumar	Ranbaxy	11.50
6.	Design, Synthesis And Biological Evaluation of Indole-based Heterocycles as Anticancer Agents	Dr Dalip Kumar	UGC	7.50
7.	Crystal Engineering of Metal-Organic Frameworks using Organic Linkers Derived from Template-Controlled Solid-State Reactions	Dr.Madhushree Sarkar	DST	23.40
8.	An Extensive Computational Development of Multi-reference Coupled-cluster Methods for Electronic Structure Investigations of Big Molecules	Dr.PrashantU. Manohar	DST	22.40
9.	Study on physicochemical and interfacial properties of some mixed micellar systems of novel Gemini and conventional surfactants in water and water-organic solvent mixed media	Dr.Subit K. Saha	A B Group	10.00
10.	Development of Framework for Multi-agent Robotic Systems	Dr.Sudeep Mohan	CAIR (DRDO)	9.50
11.	Design of Modified Release Multi-Unit Particulate Delivery Systems for Fixed-Dose Combination of Artesunate and Amodiaquine for Pediatrics	Dr. Shrikant Y Charde	UGC Major Research Project	10.25
12.	Evaluation of Anti-Diabetic Foot Cream	Dr. R. P. Pareek	TTK LIG Ltd., Chennai	1.00
13.	Pharmaceutical Application Studies of Polymers Manufactured by BASF	Dr. ShrikantCharde	BASF, Mumbai	2.00

<b>S.No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Agency</b>	<b>Sanction (Rs. in Lakh)</b>
14.	Design of novel nasal delivery systems for selected drugs	Prof. R. N. Saha	Torrent Research Centre, Ahmedabad	20.00
15.	Studies on newer use of Carbopols as pharmaceutical excipients	Prof. R. N. Saha	Lubrizol, USA	12.00
16.	Design, Synthesis and Study of Novel Benzopiperidine analogs as HIV-1 Reverse Transcriptase Inhibitors	Dr. S. Murugesan	BITS, Pilani Research Initiation Grant	2.00
17.	Aakash Ganga – A Social Enterprise Model for RWH and Agriculture of low water demanding economically important plant	Prof. Rajiv Gupta	Department of Science and Technology, New Delhi	61.96
18.	Development and Usage of Innovative Ductile Composite Materials for Repair and Retrofitting of Masonry Structures	Prof. S. B. Singh	Aditya Birla Group (ABG)	10.00
19.	Failure and Stability of Laminated Composite Plates with Cutouts	Prof S. B. Singh	K.K. Birla Academy Projects, BITS, Pilani	4.50
20.	A Study on Sludge Minimization during The Treatment of Pickling Effluent and Utilization of Sludge	Dr. AnupamSinghal	ABG	10.00
21.	GIS based Characterization of Ground water in Shekhawati Region of Rajasthan	Dr. AnupamSinghal	DST	18.00
22.	Investigation into the Behavior of Coupling	Dr. DipenduBhunia	BITS Faculty Research Initiation Grant	2.00
23.	Mobilization of Metals from Copper Mine Tailings of Khetri Copper Mine, Rajasthan and their Attenuation by Soil: Groundwater Pollution Implications	Dr. Sanghamitra Kundu	DST	11.27
24.	Dynamic Buckling Responses of Composite Structures	Mr. S. N. Patel	BITS Faculty Research Initiation Grant	2.00
25.	Establishment of National MEMS Design Centers	Prof. N.N. Sharma	National Program on Micro and Smart Systems (HR PARC)	16.7
26.	Indigenization of Lab-on-Chip for UTI Pathogen Detection	Prof. N.N. Sharma (CO- PI)	National Program on Micro and Smart Systems (Bio PARC)	82.51
27.	Development, Design and Engineering of 28-DOF Humanoid to avoid obstacles and handle specified objects in the environment	Dr. B.K. Ruot	Ministry of Information and Technology, (MIT)	45

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
28.	Flow in Closed Microfluidic Channel	Prof. N.N. Sharma	INUP, IIT, Powai	Equipment usage, and contingency
29.	Design and development of Optofluidic Micropumps	Prof. N.N. Sharma	CEERI-BITS	Equipment usage & Chemicals
30.	Carbon Nanotube from Carbon Black:	Prof. N.N. Sharma	Aditya Birla Group	10
31.	Subproject of Project OSCAR being carried out in IIT Bombay	Dr. SaiJagan Mohan	MHRD	3
32.	Cardiovascular Disease in Human Population: Mathematical Modeling and Analysis of its Incidence, Risk Factors and Preventive Strategies	Dr. Padma Murali	UGC	8.44
33.	Modeling and Simulation of Viscose Flow through JetPack Assembly	Dr. Pratik N. Sheth Dr. Suresh Gupta (Co-Invstigator)	Birla Cellulosic Kharach	5.52
34.	Characterization of Bio-oil produced via Pyrolysis of Jatropha Cake Residue	Dr. Pratik N. Sheth	BITS, Pilani	2.00
35.	Experimental studies of Bio-mitigation of CO <sub>2</sub>	Dr. Smita Raghuvanshi Mr. Subhajit Majumder(CI)	BITS, Pilani	2.00
36.	Determination of Foaming Properties of Aqueous Ethanol Solution Using Industrial Surfactant Sodium Lauryl Sulfate	Dr. Pradipta Chattopadhyay	BITS, Pilani	2.00
37.	Optimization of Complex Chemical Processes Using Evolutionary Algorithms	Dr. Ashish M. Gujarathi	BITS, Pilani	2.00
38.	Nano technology for enhanced utilization of native-phosphorous by plants and higher moisture retention in arid soils	Dr. JitendraPanwar	Indian Council of Agricultural Research (ICAR), Govt. of India, New Delhi.	3.726 Crores (41.53 Lakhs for BITS Pilani Centre)
39.	Molecular characterization of ACC (1-aminocyclopropane-1-carboxylate) deaminase activity of associative bacteria isolated from plants of desert of Rajasthan	Dr. PrabhatNathJha	DBT	41.35
40.	Molecular characterization of <i>Anopheles stephensi</i> gut epithelial peroxidases and their role in modulating immunity against bacterial and fungal antigens	Dr. Sanjeev Kumar	DST	47.18
41.	Characterization of immune signaling pathway in <i>Anopheles</i> mosquitoes	Dr. Lalita Gupta	DST	21.20

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
42.	Analyzing structural and functional evolutionary links between RubisCO and carbon concentration mechanism proteins	Dr. Sandhya Mehrotra	DST	23.96
43.	Development of surface Plasmon resonance instrument with a novel optical design	Dr Raj kumar Gupta	DST	25.66
44.	Synthesis of Platinum (II) based pure blue emitting triplet harvesting materials and their applications in white organic light emitting diodes as single emissive dopants	Dr Inamur Rehman lashkar	CSIR	20.20
45.	Design and characterization of electrochromic rear view mirrors using conducting polymers	Dr S Sindhu	DST	24.35
46.	Developing a smart crop management system using data analytics	Dr Navneet Goel	IBM	6.75
47.	Studies on cell lines as model for predicting in vitro buccal permeation of various classes of drugs and its correlation with n vivo data	Dr S Y Charde	DST	23.58
48.	Design, synthesis and evaluation of novel tetrahydroisoquinoline analogs as anti-HIV agents	Dr S Murugesan	DST	24.75
49.	Endophytic bacteria mediated phytoremediation of organic pollutants	Dr Parmeela	DST-WoS	25.10
50.	Organo catalysis as green approach for synthesis of pyrrolidine/fused pyrrolidines: towards the synthesis of related alkaloids	Dr Indresh kumar	DST	21.90
51.	Removal of heavy metals from industrial wastewater using biofiltration	Dr Smita Raghuvanshi	UGC	5.50
52.	Dynamics of Biological Species: Some Mathematical Models	Dr. Atasi Patra	DST	10.86
53.	An agent-based tool for prediction, analysis, reporting and dispensing of Climate data	Dr Yash Sharma	UGC	8.85
54.	Design and development of test rig to understand dynamics of nanorobots	Dr N N Sharma	UGC	9.37
55.	Investigation of the effect of carbonation on the properties of concrete	Dr Dipendu Bhunia	DST	34
56.	Steady state measurements of fluorescent in restricted environments	Dr D D Pant	UGC	11.63
57.	Investigations on quark-gluon plasma through quarkonia suppression in QCD matter	Dr Madhukar Mishra	DST	11.40
58.	Bio Mems Device for separation of bioparticles	Dr N N Sharma	DBT	20.25

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
59.	Design Synthesis and evaluation of novel beta secretase inhibitors for the treatment Alzheimer's Disease	Dr Priti Jain	UGC	2.00
60.	Design and Characterization of novel buccal drug delivery system of felodipine	Dr Murali Manohar Pandey	UGC	1.70
61.	A New Distributed Computing Framework for Data Mining	Dr Navneet Goel	DIT	95.00
62.	Transition Metal-Catalysed coupling/reductive coupling of saturated alkyl halide with electron withdrawn alkenes	Dr Paritosh Shukla	UGC	11.95
63.	A Normative Analysis of Selflessness as the Inner Perspectives of Good Life	Dr K N Sachdeva	ICPR	2.00
64.	Study of the Indus valley scripts through linguistic and Markov Chain Methods	Dr Niladri Sarkar	INSA	1.75
65.	Removal of volatile organic compounds from waste streams using biofiltration	Dr Smita Raghuvanshi	DST	14.18
66.	Synthesis of Novel NOS Containing Heterocycles and evaluation of their anticancer activities	Dr Dalip Kumar	DBT	18.80
67.	Phytochemical and metabolic characterization of Prosopis cineraria pods (Sangri) as potential nutraceuticals	Dr Pankaj Sharma	DST	21.30
68.	Enzymatic kinetic resolution of racemic amidoalkyl naphthols and their derivatives	Dr Santosh Padhi	BITS	2.00
69.	Possible mechanism of attenuation of the cardioprotective and neuroprotective effect of Ischemic preconditioning	Dr Rajeev Taliyan	BITS Faculty Research Initiation Grant	2.00
70.	Organocatalytic cascade towards substituted Pyrrole 3-carboxyaldehydes: A variation in Paal Knorr Pyrrole synthesis	Dr Indresh Kumar	BITS Faculty Research Initiation Grant	2.00
71.	Space time coupled least squares spectral element methods for parabolic problems using parallel computers	Dr Pankaj Biswas	BITS Faculty Research Initiation Grant	2.00
72.	Synthesis and characterization of metal oxide dendrimer encapsulated nanoparticles and electrocatalysis	Dr Surojit Pande	BITS Faculty Research Initiation Grant	2.00
73.	Design and Synthesis of Bile acid nucleosides conjugates linked via amino acids as potential anticancer agents	Dr Rajeev Sakhuja	BITS Faculty Research Initiation Grant	2.00
74.	Design and spectroscopic characterization of novel donor acceptor systems to be used in light energy conversion	Dr Shamik	BITS Faculty Research Initiation Grant	2.00

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
75.	Analysis of genetic diversity of malaria parasite using genetic and microsatellite markers from Bikaner	Shilpi Garg	BITS Faculty Research Initiation Grant	2.00
76.	Characterisation of genes regulation the polarity of sensory organs of Drosophila	Dr Monolisa Mishra	BITS Faculty Research Initiation Grant	2.00
77.	Awareness, Use and Implication of Web 2.0 for supplementing classroom teaching at graduate level	Dr Virendra Nirban	BITS Faculty Research Initiation Grant	2.00
78.	Cinematic Arts: A critical study of Multidisciplinary aspects of cinema	Dr Sushila Shekhawat	BITS Faculty Research Initiation Grant	2.00
79.	Modelling Modal Shift to Bus Rapid Transit System(BRTS) from other modes of travel in Jaipur	Dr Shriniwas Arkatkar	BITS Faculty Research Initiation Grant	2.00
80.	Condition Monitoring of Dynamic System by Vibration Response Analysis	Dr. Arun Jalan	BITS Research Initiation Grant	2.00
81.	Preparation and characterization of thin films of electrochromic conducting polymer and fabrication of prototype smart pixel displays	Dr. S. Sindhu	CSIR	14.10
82.	Impact of PMGSY Roads on Accessibility in Rural Areas	Dr. A.K.Sarkar	NRRDA	22.63
83.	Molecular studies on extracellular biosynthesis of metal nanoparticles	Dr. Jitendra Panwar	DST-Nano mission	45.50
84.	Development and Usage of Innovative Ductile Composite Materials for Repair and Retrofitting of Concrete and Masonry Structures	Dr. S.B.Singh	DST	23.50
85.	Novel $\alpha$ -Amino, $\alpha$ -Aminoxy and $\alpha$ -Hydrazino acids linked Bio-conjugates: Design, Synthesis and Biological Evaluation	Dr. Rajeev Sakhuja	UGC-Start up grant	6.00
86.	Size-Dependent Hydrogenation Catalysis with Mono-(Pd and Pt) and Bimetallic (Pd @Pt) Nanoparticles in Quantum Dot Region	Dr. Surojit Pande	UGC-Start up grant	6.00
87.	Implication of Glycogen Synthase Kinase-3 and Histone Deacetylase inhibitor in neurological disorders associated insulin resistance syndrome	Dr. Rajiv Taliyan	UGC-Start up grant	6.00
88.	Enzyme Catalyzed Kinetic Resolution of (a) Racemic Amidoalkyl naphthols and (b) Racemic 1-Amidomethyl-	Dr. Santosh Padhi	UGC Start up grant	6.00
89.	Design of new ionic receptor molecules derived from Schiff Bases: syntheses and their spectroscopic and theoretical characterization	Dr. Shamik Chakraborty	UGC Start up grant	6.00



S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
90.	Facility management using GIS and Genetic algorithm	Dr. Rajiv Gupta	DST	19.99
91.	Exploration of novel ionic liquid-supported sulfonyl reagents for organic synthesis	Dr. Anil Kumar	CSIR	12.76
92.	Understanding the epigenetic regulation in modulating inflammatory response mediated by NF-kb through AT1 and AT2 receptor in type II diabetic nephropathy	Dr. Anil G. Bhanudas	DST	19.41
93.	Esculetin a Therapeutic Intervention Targeted at Cardio-Renal Syndrome in Type-2 Diabetes	Dr. Anil G. Bhanudas	DST	39.66
94.	The role of Hippo signaling pathway components in autophagy regulation in hepatocellular carcinoma	Dr. Rajdeep Chowdhury	DST	24.05
95.	Engineering halospermum montanum hydroxynitrile lysase for potential synthetic and industrial applications	Dr. Santosh Padhi	DST	25.00
96.	Removal of Heavy metals from industrial wastewater using metallic nanoparticles as absorbents	Dr. Suresh Gupta	DST	21.47
97.	Study of Traffic flow characteristics on expressways	Dr. Srinivas Arkatkar	DST	21.47
98.	Production of hydrogen rich fuel gas from Jatropha residue cake	Dr. Pratik Seth	DST	24.90
99.	Evaluation and enhancement of foam stability of ethanol based aqueous foam using commercial surfactant sodium lauryl sulfate	Dr. Pradipta Chattopadhyay	DST	25.00
100.	Design and Development of opinion mining framework	Dr. Yash Sharma	DST	13.26
101.	Design, development and implementation of a building integrated photovoltaic system for rural application	Dr. Rajneesh Kumar	State Innovation council	43.26
102.	Exploring neuroprotective effect and molecular mechanisms of remote limb ischemic post-conditioning against brain stroke	Dr. Rajeev Taliyan	DST	25.0
103.	Characterization of surface errors in machining of thin-walled curved geometries	Dr. Tufan Chand Bera	DST	24.09
104.	Enhancing phytochemical production by the use of elicitors	Dr. Sachi Singh	DST	21.80
105.	Dark energy modeling of cosmic acceleration with observational constraint in Einstein gravity and modified theories	Dr. Suresh Kumar	DST	14.16

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
106.	Synthesis and characterization of Metal Oxide Core- (Metal) shell nanoparticles in quantum dot region and their application in electrocatalysis	Dr. Surojit Pande	DST	24.93
107.	Design of synthetically tunable azino-fused chromene conjugates as potential organogelators	Dr. Rajeev Sakhuja	DST	24.70
108.	Development of Listening and speaking modules of English languages through multimedia lab for rural students of class XI-XII	Dr. Devika	UGC	4.09
109.	Role of Conserved oligomeric golgi complex (COG7) gene in the morphogenesis of hearing organ in drosophila	Dr. Monalisa Mishra	DST	24.75
110.	Study of awareness, uses and implications of web 2.0 for supplementing classroom teaching at graduate level	Dr. Virendra Nirbaan	UGC	7.89
111.	Transforming language learning with new technologies for enhancing employability of college students from rural background	Dr. Pusph Lata	UGC	8.94
112.	A Mechanistic analysis of the role of pro-inflammatory cytokines in induction of epithelial to mesenchymal transition in hepatocellular carcinoma	Dr. Sudeshna Mukherjee	DST	16.80
113.	Study of Structural Response and Strengths of Thin-Walled FRP Composite Girders	Dr. S.B.Singh	CSIR	14.32
114.	The Study of post-reionization HI distribution using the redshifted signal and Ly forest towards understanding cosmic acceleration	Dr. Tapomoy G. Sarkar	DST	10.38
115.	Identifying microRNA signatures associated autophagy induced chemoresistance in hepatocellular carcinoma	Dr. Rajdeep Chowdhury	UGC-Start up grant	6.00
116.	Analysis of hypothetical and putative proteins dual targeted to apicoplast and mitochondria in plasmodium vivax	Dr. Shilpi Garg	UGC Start up grant	6.00
117.	Role of Protein kinase D in eye development of Drosophila	Dr. Monalisa Mishra	UGC Start up grant	6.00
118.	Information transfer during collective motion	Dr. Kunal Bhattacharya	BITS Research Initiation Grant	2.00
119.	Application of Enriched Microbial Biofilter for Metal Detoxification in Industrial Wastewater	Dr. Subhazit Mazumder	UGC	2.00

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
120.	Neuro-pharmacological investigation of novel Quinoxaline Carboxamides: Novel Serotonergic Modulators for their Anti-depressant and Anxiolytic Activity	Dr. Shvetank Bhatt	UGC	2.00
121.	Synthesis, Characterization and applications of Novel Ionic Liquid supported Metal Complexes	Dr. Bharti Khungar	UGC	13.40
122.	Synthesis, Metallochemistry and Reactivities of D-Glucose derived Glycoconjugates	Dr. Ajay Kumar Sah	UGC	9.13
123.	Development and Validation of sustainability framework for manufacturing industries	Dr. Abhijeet Digalwar	UGC	3.22
124.	Recovery of Multiple Metals ions from Industrial Wastewater using Adsorption	Dr. Utkarsh Maheswar	UGC	2.00
125.	Study of native chemical ligation at tryptophan and aspergine sites and its application in peptide synthesis	Dr. Kiran Bajaj	DST	25.50
126.	Experimental Investigation on CO <sub>2</sub> based refrigeration system in Trans-critical cycle	Dr. M.S.Dasgupta	DST	27.50
127.	Design of Ionic Liquid linked Benzotriazoles as Useful Synthetic Auxiliaries in Organic Synthesis	Dr. Rajeev Sakhuja	BITS Seed Grant	9.80
128.	A Digital Humanities Approach to Interpret the Visual Culture of Shekhawati Region	Dr. Leela Rani	BITS Seed Grant	13.90
129.	Electromagnetic Characterization of Three Dimensional Targets with Plasma Cladding for Stealth Technology Using Recursive Convolution Finite Difference Time Domain Methods	Dr. Niladri sarkar	BITS Seed Grant	5.20
130.	Investigation & Development of an ICT Driven MIS for Small Milk Producers	Dr. Leela Rani	BITS Seed Grant	3.20
131.	Effect of esculetin on the development of type II diabetic nephropathy	Dr. Anil G. Bhanudas	BITS Research Initiation Grant	2.00
132.	Developing metal Doped Bismuth Vanadate (BIMEVOX) Systems for fuel cell and catalytic applications	Dr. Banasri Roy	BITS Research Initiation Grant	2.00
133.	LCAT and ApoB the two modulators of cholesterol metabolism: are they regulated by HFHS and TNF $\alpha$	Dr. Prafulla C. Shukla	BITS Research Initiation Grant	2.00
134.	Role of Pro-inflammatory Cytokines in Epithelial to Mesenchymal transition in Hepatocellular carcinoma	Dr. Rajdeep Chowdhury	BITS Research Initiation Grant	2.00
135.	Enzymatic Kinetic resolution of racemic amidoalkyl naphthols and their derivatives	Dr. Santosh padhi	BITS Research Initiation Grant	2.00

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
136.	Synthesis and characterization of polymeric nanoparticles for applications in oral drug delivery	Dr. Sonal mazumder	BITS Research Initiation Grant	2.00
137.	Understanding and facilitating mentor-protégé relationships: An appreciative inquiry approach	Dr. Rajneesh Choubisa	BITS Research Initiation Grant	2.00
138.	Manufacturing Ultra-light high performance green composites from renewable feedstock	Dr. Subrata Bandhu Ghosh	BITS Research Initiation Grant	2.00
139.	Women at the work place: Investigating gender differences in sciences at higher education institution	Dr. Tanu Shukla	BITS Research Initiation Grant	2.00
140.	Exploring Nothe-East India through the lens of its literary productions	Dr. Kumar Sankar Bhattacharya	BITS Research Initiation Grant	2.00
141.	Growth and characterization of substrate supported transition metal nanostructures useful for catalytic, electronic and sensor applications	Dr. Subhashis Gangopadhyay	BITS Research Initiation Grant	2.00
142.	Micromodel experiments demonstrating gravity and capillary dominated immiscible flow of mercury in porous media	Dr. Shibani Khanra Jha	BITS Research Initiation Grant	2.00
143.	Development of ecofriendly nonionic surfactants coupled ultrasonic extraction technology for conophylline, an antidiabetic lead molecule and its comparison with conventional extraction techniques	Dr. Paul Atish Tulshiram	BITS Research Initiation Grant	2.00
144.	A study of Indian university models between 1857 and 1964	Dr Harikrishnan gopinandhan nair	BITS Research Initiation Grant	2.00

The details of these projects are given in individual department write-ups (B1.10.1 to B1.10.13).

### Entrepreneurship Development and IPR Unit

ED&IPR unit has been continuously working for streamlining various processes to develop an ecosystem in the campus for promoting innovation and entrepreneurship through academic courses like "Creating and Leading Entrepreneurial Leadership" & "New Venture Creation"; Intellectual property protection; Technology Business Incubator (TBI) activities and Centre for Entrepreneurial Leadership (CEL).

#### Courses

New Venture Creation course for the second time was delivered across three campuses simultaneously. There were around 30 teams constituting more than 110 students that participated in fine tuning their ideas to come out with a business plan that can be taken to next stage of implementation. Creating and Leading an Entrepreneurial Organisation course delivered on experiential learning pedagogy is being offered semester after semester for the past more than 8 years.

#### Patent Filing and Protection

IP Policy document was finalised and announced during the year. A process for disclosure of innovation was put in place. Faculty members are being encouraged through workshops and interactions to come out with patents from their research endeavours that can have commercial worth. During the year 7 patent applications by the faculty members mainly from Bio-Sciences, Chemistry and Mechanical Engineering Departments were filed and /or put to different stages such as examination etc.

### Representation in Expert Committees and Workshops Organised

Prof Arya Kumar detailed interview on incubation @BITS Pilani covered in YOURSTOY.IN titled [Startup Hatch] BITS Pilani's Technology Business Incubator spurs 30 startups. Similarly views on incubation and entrepreneurship development efforts at BITS Pilani were covered in other leading business magazines and journals such as The Wall Street Journal dt 19<sup>th</sup> March 2013 in an article titled Career Journal: Secrets to Get Your Startup Incubated; Incubator Riddle in Entrepreneur in the month of July 2013 and hteducation.

Prof Arya Kumar delivered key note address in the inaugural session on "Intellectual Property Rights Backed Research & Development Investment – Key to Development" in a National Workshop on IPR and Technology Commercialisation organized by Guru Jambheshwar University of Science and Technology, Hissar on 18<sup>th</sup> March 2013; key note talk in the technical session on "Innovation in Public Policy and Economic Development" in a two-day National Conference on 9<sup>th</sup> & 10<sup>th</sup> February 2013 on "Management Strategies and Innovation" organized by St. Xavier College, Jaipur; chaired a session on Innovation, Incubation & Entrepreneurship: Barriers and Gateways in the International Tenth Biennial Conference on Entrepreneurship held between 20-22<sup>nd</sup> Feb 2013 organized by Entrepreneurship Development Institute of India, Ahmedabad.

Prof Arya Kumar conducted a workshop on Entrepreneurship teaching for the benefit of around 50 faculty members across different institutions in Gujarat organized by Pearson in Indus University Ahmedabad on 25<sup>th</sup> January 2013. Similarly a one day workshop was conducted by Prof Arya Kumar for the benefit of around 100 students and few Faculty Member from different institutions in Jaipur on 18<sup>th</sup> August 2013 that was jointly organized by J K Lakshmi Pat University and NEN of Wadhvani Foundation, and another workshop was conducted on Business Plan Preparation and Business Model organized by VIT Jaipur in association with NEN between 10<sup>th</sup> and 11<sup>th</sup> Nov. 2013 at Jaipur.

Prof Arya Kumar participated as member of selection committee of STIDE for investment proposal in the area of ICT and member of Governing Body of STIDE of Central University of Rajasthan, Faculty Advisor to National Entrepreneurship Network, member Faculty Advisory Board of E Cell IIT Kanpur which is a non-profit organization to inculcate and unveil the spirit of entrepreneurship amongst the students; expert member for selection of universities to be funded under University Innovation Center in Biotechnology being implemented by Biotechnology Industry Research Assistance Council (BIRAC), Department of Biotechnology Government of India, on 2<sup>nd</sup> September 2013 at New Delhi, and expert Member of a panel of experts for screening business plans short listed by Rajasthan Financial Corporation under their newly launched scheme – Yuva Udyamita Protsahan Yojana on 17<sup>th</sup> September 2013 in Jaipur.

Prof Arya Kumar participated in a meeting organized by DFID in association with Technology Development Board, DST on a new programme - Innovative Ventures and Technologies for Development (INVENT) , aiming to establish and strengthen specialized incubators to support innovative entrepreneurs having a focus on inclusive growth on 30<sup>th</sup> August 2013 at New Delhi.

### Software Development and Educational Technology Unit

The **Software Development & Educational Technology Unit** (SDET Unit) incorporates the **Centre for Software Development (CSD)** as well as the **Centre for Educational Technology (CET)**. The Unit has a mandate to include identification, establishment, deployment and evolution of appropriate educational technology in order to support effective resource utilization of expertise (teaching / mentoring / collaboration) available at various campuses (both existing and upcoming) as well as enable students and faculty involved in various off-campus work-integrated learning programs of the Institute. Research, development and consultancy in those areas of computing where it has expertise and interest amongst its nucleus members remain the other important areas of the work for the SDET Unit.

The SDET Unit has four specific sets of activities handled by its two wings: CSD and CET. These wings focus on multimedia, internet networking, E-learning, operating systems, wearable computing, web-services, live and stored video streaming as current thrust areas. Its CET wing has its mandate to identify suitable educational technology solutions for on as well as off-campus operations of the Institute and helping in their deployment.

The SDET UNIT is involved in the Open-source Moodle LMS based *deployment for on and off-campus requirements of the Institute* in form of the *Nalanda and Taxila portals* on a regular basis, apart from focusing on the design / development / deployment of the Internet-based distributed learning architecture and synchronous as well as asynchronous-delivery-based content development. In addition, it has complementary features of Digital Video delivery over the Internet. Three phases of this project have already been completed. For quite some time now, it has added the live interactive (bi-directional audio/video/text-based) classroom feature to value add its off-campus student population.

The SDET Unit has played the leading role in co-designing and establishing (along with alumni of the Institute) a University-wide, Integrated immersive Telepresence Infrastructure with seamless support for very high-quality eye-to-eye contact based meetings between people present in three telepresence rooms in three campuses along with integrated multi-campus interactive lecture delivery and recording support for three class rooms spread over all Indian campuses of the Institute which would be further integrated gradually with the interactive-web-conferencing system capable of involving numerous live interactions amongst faculty and off-campus students along with recording and view-on-Demand capabilities. This has been done as part of the BITS-connect 2.0 initiative and has benefitted from significant contributions from BITS Pilani and BITS Alumni spread over the Globe. This facility was inaugurated in a distributed way across all Indian sites on January 9, 2013.

In the past, the Unit had been involved in the Journal Server Project which is a freeware international virtual digital library project, being led by Oxford University and BITS, involves over fifteen major universities in UK, India, USA, Norway, Italy, South Africa, Germany, Pakistan, Taiwan and Bangladesh, BITS had contributed to the overall architecture and Search Engine aspects of this project..

The SDETU has played a major role nationally and internationally in several areas including the research, development and deployment specific to the next-generation internetworking technologies like IPv6. It has brought several firsts to BITS and has contributed to funded international research projects in this area.

Members of the team have also presented, the research and development work being done at BITS at several international fora apart from being actively involved in IEEE and IETF activities in the area of networking research and standardization. In addition, the SDET Unit is the official enabler for the BITS-BITSAA joint venture known as Project Embryo (<http://www.embryo.org>) that is aimed at joint efforts by current students, alumni and faculty for delivery of live lectures by specialist alums as well as joint collaborative research guidance by alums and faculty to on-campus students.

In addition to large number of first degree and master's level students, at present, two full-time doctoral scholars students are working towards their Ph.D. at the SDET UNIT in the area of wearable computing both of whom have won the TCS Doctoral Research Fellowships after joining BITS Pilani.

### **Center for Biotechnology**

The Centre has in-house facilities of Recombinant-DNA Technology. The objectives of the Centre are to take up research and development projects from various sponsoring organizations, establishments of University-Industry linkage through various R&D contract projects and conduct periodic Workshops and hands on training for faculty members, industry personnel and students in the area of advanced molecular biology/biotechnology and bioinformatics. The facilities available are: Victor-3 Multichannel counter, Gel Documentation System, PCR Machines, Inverted microscope with camera attachment, Hybridization oven, Gel electrophoresis equipments, UV-Cross linker, – 80°C Deep Freezer, Temperature Controlled Water Bath Shaker, Refrigerated Centrifuge, Cold Room, Tissue Culture Room, Plant Biotechnology facility, Semi-automated Green House, Radioisotope handling facilities, Liquid Nitrogen Plant etc. We developed Insectory to facilitate research on mosquito borne diseases.

In the year 2013 approximately 70 students were trained in molecular biology techniques through various laboratory courses. Over 40 students completed their projects in the area of modern biology.

### **Centre for Desert Development Technologies (CDDT)**

The Centre for Desert Development Technologies (CDDT) was established in April 2005 as an Alumni initiative at BITS-Pilani in collaboration with Jacob Blaustein Institutes for Desert Research (BIDR) of Ben Gurion University (BGU) – the acknowledged global leaders in making the desert bloom through their demonstrable success in the Negev Desert [[www.bgu.ac.il/bidr](http://www.bgu.ac.il/bidr)]. The C-DDT mission is to make the desert areas of Rajasthan bloom through demonstration, extension, and development of world class desert development technologies-water and energy conservation in irrigation systems, rain water harvesting and ground water management, conservation and propagation of plants suited for the desert environment, and optimizing human existence in the desert ecosystem. The C-DDT vision is to develop a multi-disciplinary center of excellence to demonstrate the role that various technologies play in desert development and to assess their socio-economic impact on the inhabitants. The key disciplines involved are Civil, Chemical, Electronics and Electrical Engineering; Plant Biotechnology, Solar Energy, and Humanistic studies. A water management system consisting of rainwater harvesting pipelines, tank, solar pump, drip irrigation system etc. has been constructed and a plantation area that uses water from this system developed. A biotechnology complex consisting of a plant tissue culture lab and a greenhouse has been constructed. Rare desert plants like Guggul, Jatropa, etc. being propagated and exploration of new crops like Olive is being explored. Certain other projects which have been initiated are recycling and desalination of gray water for

irrigation purpose, assessment of groundwater resource in the Shekhawati area using remote sensing data and geographical information system, development of aloe vera processing, impact of desertification on nomadic population and vice versa. Several exchange visits of BITS alumni and faculty and BGU/BIDR faculty have taken place. A MoU between the two institutions has been signed. In addition to exchange of ideas and expertise, joint projects are being undertaken. A four rooms complex has been created to study the use of solar energy in passive architecture with support of UGC. The different studies are being carried out related to energy saving techniques. It implements the new energy efficient static sun-shade, cavity walls, wall with brick projections, roof with stonewares and vents to show case the energy efficient house to reduce the active load for comfort conditions. A good number of International publications are made and a Ph.D. along with number of projects are completed by students.

### **Centre for Educational Technology (CET)**

*The Centre for Educational Technology (CET)* is the second of the two major centres run by the Software Development and Educational Technology Unit (SDET Unit) at BITS-Pilani. It comprises of modern digital video studio and is equipped with the high-quality Video-conferencing facilities.

This is further complemented by the Internet-based, highly scalable distributed desktop video-conferencing facility allowing medium-quality but more interactive live classroom sessions where all students cannot come to on or off-campus classrooms and may be resident in different parts of country / world. The Centre is equipped with the IP-based Video-on-Demand and Scheduled Video Multicast facilities which can allow reuse / review / streaming of lectures delivered earlier for the benefit of students. Incidentally, the above referred Project Embryo makes effective use of this technology already and allows ALL campuses of BITS-Pilani to be benefitted simultaneously whenever an Alumnus expert delivers a scheduled lecture from elsewhere in the world.

Its focus is on E-learning delivery systems, related web-services, live and stored video streaming as current thrust areas. Its mandate is to identify suitable educational technology solutions for on as well as off-campus operations of the Institute and helping in their deployment.

The CET has played the leading role in co-designing and establishing (along with alumni of the Institute) a University-wide, Integrated immersive Telepresence Infrastructure with seamless support for very high-quality eye-to-eye contact based meetings between people present in three Telepresence rooms in three campuses along with integrated multi-campus interactive lecture delivery and recording support for three class rooms spread over all Indian campuses of the Institute which would be further integrated gradually with the interactive-web-conferencing system capable of involving numerous live interactions amongst faculty and off-campus students along with recording and view-on-Demand capabilities. This has been done as part of the BITS-connect 2.0 initiative and has benefitted from significant contributions from BITS Pilani and BITS Alumni spread over the Globe.

Currently, the CET is in the process of evolving a long-term and near-term blueprint and strategic plan of sustainable dual-purpose large-scale open or partly-closed global instruction delivery for BITS Pilani with a focus on the Open edX based MOOC Platform of our own known as 'Any-Learn' accessible at the URL: <http://any-learn.bits-pilani.ac.in>.

### **Centre for Entrepreneurial Leadership (CEL)**

The major projects running under CEL at BITS Pilani - Pilani Campus are Conquest, Epsilon, Founders dating, Saksham and Summer in a Startup (SIS). The entire CEL team has been working with their full zeal and has been taking all their projects to next level.

The brief descriptions of the activities done under the major projects by CEL team during 2013 are as:

#### **Conquest 2013**

The grand finale of the decadal edition of the highly successful startup competition, Conquest 2013, organized by **Center for Entrepreneurial Leadership** of BITS Pilani, was held on Sunday, 15<sup>th</sup> September 2013 at FICCI Auditorium, Tansen Marg, New Delhi. The hottest startup of India award, sponsored by Groupon India was bagged by Freshmentors along with Rs 2 lakh in equity-less money, a host of resources with the runner up being iTraveller taking home Rs 1 lakh. India Rising Star Award, sponsored by Gandhi Capital was won by m.Paani. In addition, the winners had Rs 1 crore worth of incubation opportunities by prestigious firms like Seedfund, Euphoria Consulting, Kae Capital, Sequoia Capital, Mumbai Angels and TLabs and Rs 2 Crore in resources by Groupon India, Amazon India, ScaleArc, Foradian, Pressdoc and many more.

The grand finale, attended by over 400 people, featured brilliant pitches by the ten finalists, and also hosted two panel discussions:

- Why do billion dollar startups not emerge from India?
- First movers versus Fast follower start ups in an unestablished Industry?

The Panelists were: **Amit Ranjan** (Co-founder, Slideshare), **Gautam Gandhi** (India head, Google) **Rohit Bansal** (co-founder, Snapdeal), **Pranay Gupta** (Partner, 91 Springboard) **Bikram Bedi** (Head Amazon India), **Dev Khare** (Principal, Lightspeed Venture Partners), **Sandeep Singhal** (co-founder, Nexus Venture Partners).

**Prof. G. Raghurama, Director, BITS Pilani -Pilani Campus graced the occasion and was joined by Prof. Arya Kumar, Unit chief, ED&IPR Unit, for inauguration.**

The process for the competition began in February 2013. After the startups registered at the Conquest 2013 website, personal mentoring sessions for the top shortlisted teams were organized across 5 major cities in India, wherein the teams had the liberty to choose their own mentors. The semi-finalists were asked to update their profiles including the progress made since the initial registration for Conquest. Every team was also asked to submit a Video Pitch which was used as part of the evaluation process to select teams for the Grand Finale. All teams irrespective of their selection to the next round received detailed feedback from the judges. In the final round of Conquest held in New Delhi on 15<sup>th</sup> September 2013, the teams went through a number of simulation rounds where they were grilled by the Judges before the Winner was chosen.

Conquest 2013 had title sponsors Groupon India and co-title sponsors CoolAge, ScaleArc and Foradian. CNBC gave the TV coverage for the event.

### **Epsilon 2013**

Epsilon is the Intra-BITS Business Challenge organized by the Center for Entrepreneurial Leadership, BITS-Pilani. In the spirit of encouraging the atmosphere of entrepreneurship and celebrating entrepreneurial acumen in BITS, Epsilon aims to provide an engaging platform to transform high potential ideas into full fledged startups.

Epsilon 2013, got a remarkable success in terms of the quality and number of applications received. Entries were opened in October of 2012 and by the beginning of January 2013, about 70 entries from all three campuses were received, out of which 40 were selected. These 40 teams were given mentorship over two months. A couple of workshops were also conducted in the month of January by our partner The Hatch for Startups. The workshops focused on how to create value for your startup and on how to build your MVP and were conducted by Mr. Prajakt Raut, founder and ED of the The Hatch for Startups. Apart from this numerous resources were also provided to the teams every week. There was a one-on-one session with Mr. G. Karthik, Co-founder of Tune Patrol for the Pilani teams and a Skype session for teams from other campuses to further understand their problems and provide them with support and also connect them to VCs. In the end, Event Weavers from Pilani campus was chosen as the winner of the 2013 edition of Epsilon.

### **E-Connect**

E-connect, a new initiative to promote the culture of startups on campus were undertaken by CEL, BITS Pilani. In its nascent stage, the project aims to bridge the gap between various aspects of setting up a new venture. It aims to provide a networking platform for entrepreneurs, designers and web developers on campus to meet, discuss and start up eventually. It aims to bring together talented and dedicated students with different skill sets to start new ventures. Being a 300acre campus with over 3500 students it is often difficult to find students with complementary skill sets. The ideation of the project started in March 2012, when a lot of students applying for the course New Venture Creation, went through a lot of trouble in finding the right and dedicated team for their venture. Being an entrepreneurial community, we know the importance of team work in a startup, and thus came up with E-Connect, to bridge this gap. In April 2013 too, E-Connect helped students applied for the New Venture Creation course by organizing dedicated session.

### **Project Saksham**

Brainchild of the Rural Entrepreneurship Division of CEL, BITS Pilani '**Saksham**' aims at creating an independent and sustainable enterprise involving rural households (mainly women). Meaning '**capable**', Saksham aims to create a framework that identifies and conceives effective procedures for collection of leftover excesses and then utilizes commonly available resources for bringing out products that are economic and competitive in the market. All the while, it fundamentally focuses on making a successful enterprise out of a rural location and making those involved in it 'Saksham'.



By looking at the quantity of waste paper generated in the institute and the way it was dumped as useless garbage, it was realized that this paper can be made much more useful. Hence, with collaboration with **NSS, BITS Pilani** volunteers, RED collected waste paper from the students. This paper was segregated on the basis of the used and the unused ones. The unused ones were cut and made into sheets. Now this paper was sent to the girls. They made notebooks out of them. For covers, certificates used during the festivals were used.

Last year, nearly 100 notebooks were made by this process and were sold within 2 days during the Oasis 2013. Presently, RED's main focus is to utilise and tap more waste resources so as to increase the production of notebooks and the income generated out of this model. Currently student team is working on streamlining the entire value chain involved and marketing strategies to make this model sustainable.

### Summer in a Startup (SIS)

The Summer in a Startup programme seeks to promote startups and encourage entrepreneurial acumen amongst undergraduates. An initiative of The Center for Entrepreneurial Leadership, BITS Pilani and powered by BITSAA, SiS aims to give the students at BITS Pilani the opportunity to intern at a startup over the summer. In 2013, CEL is proud to present the 5th edition of SiS. SiS team started searching for Startups from October to December in 2012. This also included finalizing stipends with the Startups. Applications from students were taken in two rounds. Applicants were allowed to choose 3 Startups out of 20 Startups and then their resumes were forwarded to those companies. If an applicant failed to get an offer to work in any of those companies, he had a chance to apply again for the second round and the procedure was same for the second round as well. The startups that participated in SiS 2013 were – Practo, Zomato, Innomation, Samhita Social Venture, Awaaz De, Yourstory, GHarpay, CMO Axis, Findable.in, Mobicotics, EkSMS, and Akosha.

**E-Week 2013:** CEL at Pilani campus celebrated Entrepreneurship Week 2013 in association with National Entrepreneurship Network (NEN) from 7<sup>th</sup> – 17<sup>th</sup> February 2013. The theme of E-Week 2013 was "Innovating for India". E-Week 2013, in its seventh edition, hosted a plethora of events encouraging the spirit of innovation amongst the young entrepreneurs here at BITS. Prof. Arya Kumar, Dean SWD inaugurated the E-Week and inspired students to develop the society through needed innovations.

**Mantra Awards 2013:** The Mantra awards were instituted by CEL, in 2009, to recognize and reward outstanding students who have demonstrated extraordinary leadership potential and/or entrepreneurial initiative. Anupendra Sharma, co-founder of CEL, Investment Partner at Siemens Venture Capital in Boston, and CEL Alumni Advisor had initiated the creation of the Four '**Mantra Awards**'. The Mantra Awards 2013 is received by:

- **Brijesh Bhardwaj - Entrepreneur of the Year Award**
- **Anjum Dhamija - Mantra Award for Social Leadership**
- **Siddharth Seth - Mantra Award for Outstanding Leadership (Male)**
- **Jenab Vohra - Mantra Award for Outstanding Leadership (Male)**



Center for Entrepreneurial Leadership (CEL), BITS Pilani, Pilani Campus has been awarded as the best E Cell in the region by National Entrepreneurship Network in its Grand Finale of E Week held on 16<sup>th</sup> Feb 2013 at Jaipur. CEL team with Shankar Venkat received it in the function held in Jaipur.

### Technology Innovation Centre (TIC)

Technology Innovation Centre was instituted as a facility by which engineer/scientist entrepreneur could spend desired period at the campus and investigate problems brought by him along with a team of BITS facilities and students. These people are given associate faculty status so that they can use all the infrastructural facilities of the Institute and participate in the academic process. Moreover, these entrepreneurs are able to work for their Ph.D. degree of BITS and participate in teaching certain state of the art courses during their visits to the campus.

Past-experience shows that this facility mostly attracts knowledge – intensive small-scale entrepreneurs, who cannot afford the high cost of R & D in their establishment. The institute, in turn, has been able to train its students on entrepreneurial skills and has provided the rewarding experience of investigating real – life problems brought from the industry.

During 2013, three companies have applied under this scheme and selected students for their projects with stipend. 24-7xS Technologies, Barcelona selected 7 students to work on their projects in the Mechanical engineering and computer science fields in II semester 2012-13; V K Industries Pilani has given project in I semester 2013-14, in which two students were involved, and Convergent Technologies, Gurgaon gave one project I semester 2013-14 to one student. All such projects faculty gets involved in guidance and monitoring the progress of the work done by teams.

### **Centre for Materials Science and Technology**

The objective of the Centre for Materials Science and Technology is to develop and implement projects related to modern materials such as smart materials, biomaterials, fibre-reinforced plastic composites and also related to conventional materials such as metals, ceramics and polymers. The Centre undertakes mechanical and non-destructive testing of various engineering materials and products for evaluating their mechanical properties and for evaluating defects such as cracks, voids, delamination, inclusions etc. Other activities include providing consultancy related to materials aspects and testing/ development and analysis in the field of materials science and technology in general. The testing facilities available at the Centre include a conventional Universal Testing Machine of 50 Tons capacity, as well as, a fully computerized microprocessor based Electronic Universal Testing Machine of 100 kN capacity, Heating Chamber for UTM for High Temperature Testing, Hounsfield Tensometer, various hardness testing machines such as Brinell, Rockwell, and Vickers Hardness Testers, Rotating Bending Fatigue Testing Machine, Combined Bending and Torsion Fatigue Testing Machine, Circular Polariscope, Strain-gauge testing facility, Izod Impact Testing Machines, Digital impact testing machine, Double disk polisher, Inverted Metallurgy Microscope, Erichsen cupping tester, Single Screw Extruder with Calendering and Pelletization Facilities Ultrasonic Flaw Detectors, Liquid Penetrant Test kit, Magnetic Crack Detector, Eddy Current Tester, Acoustic Emission Testing equipments, Acousto-ultrasonic pocket hand-held AU scanner etc.

### **Centre for Robotics and Intelligent System**

The objective of the Centre for Robotics and Intelligent Systems (CRIS) is to develop prototypes that provide greater intelligence and higher versatility for robotic tasks under ever-changing constraints of the environment. This objective is set forth to make Indian industry competitive by developing indigenous technical skills, manpower and innovative spirit. Each prototype is developed in four different stages viz. (i) Conceptualization, (ii) Algorithmic development and verification in simulated environment, (iii) Real-time testing and (iv) Integration of automated system. The Centre is well equipped with excellent computational facilities; advanced software packages for circuit design, image processing and mechanical design; micro controller and DSP based driver card for real-time experimentation; experimental bed, Pendubot (inverted pendulum), CRS-Plus robot manipulator, 4-DOF SCARA manipulator, 5-DOF articulated manipulator, ABB Industrial Robot, Hydra mobile base, Labmate, mobile base, Allen Bradley PLC Micro Logix 1500, PLC based Hydraulic and Pneumatic Trainers and many other facilities. The center is geared to provide research facilities in areas such as intelligent robotics and system design, intelligent control, neural and fuzzy neural based system modeling and control, evolutionary computation, robotic vision and virtual reality. Earlier BITSUMO, which is an autonomous assistant robot, was developed to work in restaurant/ library. In addition to these, an autonomous glider, an autonomous hovercraft, a 14-DOF robotic arm, an intelligent mechatronics ball, a micro-mouse platform and a micro-mouse testing base were developed at CRIS. The center is engaged with the development of humanoid. The first breakthrough is in terms of Acyut-1 and Acyut-2 (humanoid). Acyut-1 is a dancing robot and which has won several laurels even at international competitive events (Robogames 2008 held at San Francisco, USA and INDEEN Expo, Germany etc.), Acyut-2 is much larger and far more capable. It has far better control and using remote command by way of hand movements etc, it can be moved synchronously. These models were demonstrated for their capabilities at Korea, USA, Germany and Japan. The students are currently working on further developments related to Acyut-2 robot with added features. Acyut-3 had participated in FIRA-2010, Bangalore and created a world record in weight lifting (2.4Kg.) in year 2010. In same year a mobile Robot (named SHAURYA) participated in Annual student contest organized by DRDO, India and received recognition. Team Acyut have showcased their technologies at in the Tech fest of BITS Pilani Dubai campus and IIT Kanpur, Robotics symposium of RDE Pune (DRDO) and Tech test of NIT Calicut. For their effort the team has been appreciated by scientists of BARC Mumbai and DIT New Delhi. During the year under review, the students working at CRIS has developed a number of models and working robots. Namely, humanoid Acyut -4 had been invited to participate in ROBOCUP-2013. AcYut was redesigned completely and a novel system of parallel links is introduced. It stood 2nd in Robocup Iran Open 2013 and stood 4th in Robocup Netherlands 2013. Based on the progress in the area of humanoid robotics, Department of Information Technology (2012-2014) has sponsored a project worth 45 Lacs to develop a humanoid which is capable of stable walking and navigate in a structured environment. The team has continually improved the software for the robot to incorporate artificial intelligence and computer vision. Acyut can now play autonomous soccer against another robot and score goal too.

### **Centre for Renewable Energy & Environment Development (CREED)**

CREED is an interdisciplinary Centre that co-ordinates educational and research activities in the active areas of renewable energy and environment. The objectives of the Centre are (i) to conceive, develop and implement renewable energy applications and environment protection projects, (ii) to develop courses and organize awareness programmes, and (iii) to collaborate with external organizations in the areas of renewable energy education, training and technology development. Some of the existing facilities at CREED include an experimental set up for solar water heating, solar air-heating system, solar stills, and solar photovoltaic power pack with storage battery bank, SPV lighting systems, and portable energy audit instruments.

Currently, active research areas of CREED include concentrated solar power and photovoltaic power based policy analysis, emissions and environmental impact of thermal power plants, planning and economics of renewable energy systems, real time operation and control of renewable systems, industrial cogeneration, integrated renewable systems, demand side management, clean development management integrated resource planning, and CO<sub>2</sub> based refrigeration.

The Renewable Energy Club is an exclusively a student managed body that operates under CREED. The Club has undertaken active work in organizing competitions, quizzes, carbon footprint analysis and carbon credits. Commercial organizations in these areas have evolved out of this club, and are currently owned and operated by BITS alumni.

### **Centre for Software Development (CSD)**

*The Centre for Software Development (CSD)* is first of the two major centres that comprise the newly formed Software Development and Educational Technology Unit (SDET Unit) at BITS-Pilani.

The CSD has three wings namely *Media Laboratory*, the *BITS-IBM Laboratory for Open Source Computing* and *BITS-Microsoft Laboratory for Mobile Computing*.

Its focus is on Web-media, E-learning Support, Networking (wireline and wireless: sensor, mobile and ad-hoc variants), wearable computing, Web-services as current thrust areas. It is involved in the Open-source Moodle LMS based *deployment for on and off-campus requirements of the Institute* in form of the *Nalanda and Taxila portals* on a regular basis.

In the past, the CSD had been involved in the Journal Server Project which is a freeware international virtual digital library project, being led by Oxford University and BITS, involves over fifteen major universities in UK, India, USA, Norway, Italy, South Africa, Germany, Pakistan, Taiwan and Bangladesh, BITS had contributed to the overall architecture and Search Engine aspects of this project..

The CSD has played a major role nationally and internationally in several areas including the research, development and deployment specific to the next-generation internetworking technologies like IPv6. It has brought several firsts to BITS and has contributed to funded international research projects in this area.

Recently, CSD has also developed a software for biometric attendance system known as 'e-Attend' that is currently in advance stages of testing and a pilot run is planned shortly across all campuses of the Institute.

Members of the team have also presented, the research and development work being done at BITS at several international fora apart from being actively involved in IEEE and IETF activities in the area of networking research and standardization. In addition to large number of first degree and master's level students, at present, three full-time doctoral scholars students are working towards their Ph.D. at the SDET UNIT in the areas of Wearable Computing (Body Area Networking), Vehicular Ad-hoc Networking and Network Security two of whom hold the TCS Doctoral Research Fellowships.

### **Centre for Women Studies**

The UGC sponsored Centre for Women Studies has been established at BITS, Pilani during March 2005. UGC has sanctioned Rs.50 Lakhs under the 10<sup>th</sup> Plan for this Centre. The objective of the Centre is to work towards upliftment of women and their families in the fields of social, economic and health through technological interventions. Centre has initiated various new activities during 2013.

#### **Seminars/Workshop /Training Programme/ competition**

##### **Drawing competition:**

UGC Centre for Women Studies organized a drawing competition for the girl and women on "Women Empowerment" on February 23<sup>rd</sup> 2013. The objective of the competition was to provide an opportunity to the

young girls and women to observe and respond to the specific issues concerning women and girls on the theme. Nearly 55-60 participants from the campus participated in the competition. Prof. Sangeeta Sharma along with Madhusmita Das coordinated the event. Judges for this competition were Mr. Khande the drawing teacher from BHS, Gajendra Singh Chauhan from the Department of Humanities and Social Sciences, BITS, Pilani and Hussein Rediowala, student from Art & D Department of BITS, Pilani. Participants were divided into 3 groups on the basis of their age. Save the girl child, female literacy, crime against women, stereotype portrayal of women in Media, trafficking of women/girls, forced Early Marriage, Women Entrepreneurship, Women in politics, Women Artist, Inspirational women were the sub themes.

#### **Celebration of International Women's Day by the centre**

Like every year UGC Centre for Women Studies, BITS, Pilani celebrated the International Women's Day on 9<sup>th</sup> March, 2013 in LTC Lawns. The objectives were:

- To pay respect and understand the importance of women in our life's and to raise awareness against injustice.
- To provide a space with opportunities for women to participate in range of activities as part of a one day event. The benefits to be realized include: raised awareness, increased confidence to facilitate activity in community and civic life.

In this event around 90 women from BITS & CEERI campus participated. Prof. Sangeeta Sharma, Coordinator, UGC Centre for Women Studies welcomed the participants and described the importance of Women's Day. Dr. Devika from the Department of Languages and Ms. Madhusmita from the Centre for Women Studies coordinated the event. Various events like- find the pairs, quiz questions, fashion parade, music and dance competition were organized and prizes were distributed to the winners.

#### **An open forum discussion**

UGC Centre for women studies organized an open forum discussion on "Breaking the Culture of Silence for combating the violence against women" on 6<sup>th</sup> April, 2013, at LTC, BITS Pilani. The objectives of the workshop were:

- To help the women and girls how to overcome the fear, stigma surrounding sexual violence
- To make the women aware of the legal rights or responsibilities and solution available to them, so that they can exercise them at appropriate time

The Resource persons for this workshop were Mrs. Alka Bisaria Bhatnagar, and Mrs. Sonia Shandilya, Lawyers, High Court Jaipur. 80 women and girls students from the BITS, CEERI and BET schools participated in the discussion. The event started with the welcome address to the gathering and brief introduction of the resource persons by Prof. Sangeeta Sharma, the coordinator Centre for women Studies. After the welcome address Ms. Madhusmita Das, gave a brief presentation on the findings of the research studies that have undertaken by the centre on different issues related to women. The presentation was followed by innumerable questions by the audience. They were taken up and answered by both the resource persons. Several issues like, domestic violence, gender discrimination, Eve teasing, sexual harassments etc. and the procedure to recognize when a problem or conflict is a legal conflict and when a legal solution is available were discussed. Many sensible questions like how to tackle eve teasing and any attempt of molestation, what should be the action if one comes across any such situation, is it safe to report against any such case, whether there is any need of witness for sexual harassment or rape cases, the procedure to approach the mobile courts by the rural women, the work of the women special cell in different Institution, were asked. The session was very interactive.

#### **A Workshop on 'Health and Nutrition'**

In the series of its workshops related to pertinent issues of society, center for Women Studies in BITS Pilani, organized a workshop on health and nutrition on 13<sup>th</sup> September 2013. On the onset of the workshop, Dr. Sangeeta Sharma (Coordinator, Center for Women Studies) introduced the spokesperson Dr. Sanjana Bhat, a renowned Gynecologist. During her session, Dr. Bhat emphasized that our health is dependable upon three pillars- nutrition, exercise and Hygiene. She further elaborated the sources of nutrition and how our body functions properly with the help of these. Her impeccable interactive way of conducting the workshop left the audience mesmerized and it was quite evident from the queries asked by students in the end of the session. There were around 50 participants mainly consisting of BITS Pilani girls and faculty.

### Candle March

UGC Centre for Women Studies in collaboration with the Nirmaan organization had organized a Candle march and marathon in September 2013 in support of women's safety and justice for victims of gender abuse and also distributed prizes for the event (marathon).

### Debate competition

UGC Centre for Women Studies organized a debate competition among the school students of Pilani campus on "*Whether women Justify reservation policy in Panchayats*" on 16<sup>th</sup> November 2013, at BITS, Pilani. The objective of the competition was to provide a space for opening up / sharing the views regarding the reservation Bill, to help the girls to understand their political right as citizen and to provide an opportunity to the young to observe and respond to the issues and help in further policy making. The coordinator of the centre Prof. Sangeeta Sharma after the welcoming address, introduced the judges of the competition. She coordinated the event along with Madhusmita Das. Students from different schools of Pilani, i.e. Birla Balika Vidyapeeth, Birla Sishu Vihar and Birla School Pilani participated in this competition. Judges for this competition were Dr. Devika, Dr. Kumar Sankar Bhattacharya, from the Department of Humanities and Social Sciences, BITS, Pilani and M.S. Srikar Reddy, Student of Electrical, Electronics, Engineering branch of BITS, Pilani. After all the presentation, audience and participants were allowed to express their views on the issue. Results were announced and prizes were distributed by the judges. In the end, Madhusmita Das proposed vote of thanks.

### Research (Empirical Studies)

Besides these activities, a research study on "The portrayal of Women in T.V. Advertisements and its Impact on the Society" is going on by the Centre. The objectives of the study were:

- To explore the type of role played by women in Indian T.V. ads
- To trace the changes that occurred in the portrayal of women through ages
- To know the hope and perception of people about the future role portrayal of women

Now-a day's data collection is going on from the areas in and around Pilani.

### Lectures / Academic Forum

- Madhusmita Das and Sangeeta Sharma. "**Participation of Women in Higher Education: Issues and Challenges**" ed. Singh D.P. & Singh N.S. "Issues and challenges on Higher Education", Words Worth Publication, 2012, Chapter 11, pp. 136 – 153.
- Madhusmita Das and Sangeeta Sharma "The Effects of Television Advertising on Body Image of Women" Pragyaa the Journal of Management Volume 3, Issue 1 & 2 (July-December & January-June 2013).
- Conference: Sangeeta Sharma and Madhusmita Das "**Honour Killings: Shame to the humanity**" in a National Commission for Women, New Delhi sponsored National Conference on "Honour killing : The Mind & The Mind Set: Challenges & Remedies" on 12<sup>th</sup> & 13<sup>th</sup> January 2013 organized by Nehru Studies Centre & Department of Political Science University of Rajasthan, Jaipur.
- A paper presented by Madhusmita Das titled "**The Influence of Television Advertising on Changing Perception of Women about their Body Image**" by Madhusmita Das and Sangeeta Sharma at a National Conference on Media and Communication, on 8<sup>th</sup> & 9<sup>th</sup> February 2013 at Jaipuria Institute of Management Jaipur.
- A paper presented by Madhusmita Das titled "**Stereotyping of Women in Television Advertising**", by Madhusmita Das and Sangeeta Sharma at an International Conference on Management and Business Innovation on 18<sup>th</sup> -19<sup>th</sup> May 2013 at Malaviya national Institute of Technology( MNIT), Jaipur., pp. 130 – 136.

### Centres Established with Strong Industrial Support

#### Embedded Controller Application Centre

Prof. Surekha Bhanot (Coordinator), Prof. S Gurunaranan, Mr. Rajiv Ranjan Singh, Ms. Swati Keskar, Mr. Ashish Mishra.

### Embedded Controller Application Centre

This Centre was set up in Collaboration with Motorola India Ltd. The objective of the Centre is to impart detailed understanding of important features of embedded controller architectures and familiarization of advanced concepts in the field of embedded controllers through

- Students projects/Industrial projects
- Imparting training to the industry professionals and running short term courses in the field of Embedded System design
- Developing course modules

The infrastructure of the centre includes Pentium machines, Microcontroller Modular Evaluation Systems, Microcontroller Development Systems, Emulators, Assemblers and Cross compilers for various microcontroller families (ARM, ATMEL, Microchip, Cypress, ST Microelectronics, Motorola, etc.) DSP processors, logic analyser and other bench equipments.

Faculty members of the group are involved in research work in areas of Embedded System, Wearable Computing. Faculty has published research work, attended National and International seminars, conferences and invited talks.

Centre has established a PSoC Lab with support from Cypress Semiconductor Corporation. Recently a student project named "Project SmartLAB" has been sanctioned the "Prof. I. J. Nagrath Student Project Fund" by BITS Alumni Shri Brij Bhushan (1964 batch).

### Technology Business Incubator (TBI)

Birla Institute of technology and Science (BITS), Pilani in association with Department of Science and Technology (DST), Government of India has established a Technology Business incubator in the area of Embedded Systems and VLSI Design to promote entrepreneurial leadership across all disciplines. TBI facilitate entrepreneurial activity on campus and off- campus and commercialization of R&D efforts at BITS. VLSI Design Laboratory with the state of the art design facilities is created. Embedded System Development platforms are also augmented. Secured and independent office facilities with computers and round the clock Internet access and email facilities are provided to incubates. Some of the prominent incubate companies that have graduated from TBI are Bridle IT, Mobile Medics, Next gen PMS, Steps Ahead, Vita Peracta , Grey Orange Robotics, Innovese, Anaya Media have already graduated out of TBI.

The four incubates presently working in the TBI are as under:

1. **Sharp Edge Pvt Ltd.** is providing a technology platform for engineering students which seamlessly integrates the traditional chalk & talk method with smart classrooms based on cognitive learning. It enables Professors to use digital resources such as educational animations, assessments and diagrams to make classroom more interactive creating multi-sensory learning for students and help improve their academic performance. Institute's classrooms are converted into i-classrooms with a projector, CPU, keyboard and pointing device. The Institute has the flexibility to decide its infrastructure without any burden on its financial resources. The solution is flexible to work with the basic CPU+ moveable projector solution to the use of Smart Boards, Pen Tablets, i-pads and other gadgets as per the institute's discretion.
2. **KNOWLEDGE ASHRAM** aims to develop an adaptive learning environment for all where authors, teachers, students and learners can interact, socialize, collaborate to create, share, publish, learn and explore. The team aims to develop interactive digital textbooks with integrated social media having features like dynamic, low cost, high quality, easy access, interactivity, self explanatory, engaging, adaptive and personalized.
3. **My-Ti Technotronics** introduces an innovative sleek design with close to natural approach for typing & writing on a tablet or on paper. Recent success of Samsung Galaxy Note emphasizes this point. We plan to take this as an opportunity for market and provide a productivity centric tablet creating a new market called "utility tablet market".
4. **Phyzok Learning Solutions LLP** is involved in developing e-solutions content delivery model. It aims at providing customized, cost-effective and highly efficient content delivery systems (CDS) to academia and corporate for Live and web-based content. Their flipped class room model has received appreciation.

The brief details on TBI, BITS were covered amongst the prominent TBI's in the country by various leading economic dailies during the year.

TBI incubate Sharp Edge Pvt Ltd., My-Ti Technotronics and few other entrepreneurs Technotronics has been identified for sanction of a seed grant of Rs 10 lakhs each under the TIDE scheme of Ministry of Communications and Information Technology Department of Electronics and Information Technology

TBI team has been making efforts to identify students and working professionals who would be in a position to take up dedicated entrepreneurial activities across all disciplines. TBI also facilitates commercialization of technologies and patent that is outcome of research at BITS Pilani.

## B1.12 CENTRAL FACILITIES REPORT

### Central Library

During the year, 1456 new volumes were added to the existing collection in various disciplines of Science, Engineering, Technology, Pharmacy, Management, Humanities and general reading materials. Library collection reached 2,35,250 volumes. Important handbooks and encyclopedias added include : *Encyclopedia of Historians and Historical Writings, Encyclopedia of Northeast India, Handbook of Hydroxyacetophennous, Handbook of Protein Structures and Handbook of Chemistry and Physics, Catalysis from A to Z.* E-book database, Pearson ebooks was added with over 200 high quality textbooks for full on-campus access. Besides, *Books 24x7*, an online books portal with over 22000 e-books was continued and it was made accessible for all the faculty in Pilani, Goa and Hyderabad campuses besides to all off campus students.

50 print journals were discontinued since the same are available in the campus online. 4 print journals were added. We received 1622 reports and theses submitted by the students under various study programmes like First Degree, Higher Degree, Work Integrated Learning Programme, Practice School, Special Projects and PhD Degree.

Library organized a book festival namely, Basant Book Festival on 6-24 February 2013 at Supermarket (Akshay) for the benefit of faculty and students in order to buy books of their interest from various publishers at special discount.

10 new PCs were made available in the library for fast access to e-resources.

Two halls of the library were vacated in order to accommodate the WILP Division. The stock and reading tables were reshuffled and accommodated in the rest of space in the library.

A large part of the books and journals collection was re-labelled for the benefit of users.

3 CCTV cameras were added in cloak rooms/air-conditioned hall of the library.

### Facts about the library

The statistics indicate that the Library collection has grown steadily. Some of the significant statistical data about the Library are as follows.

1	Current library holdings	2,35, 250
2	Average number of books issued per day	554
3	Average number of readers visiting the library per day	531
4	Books added during the year	1456
5	Project Reports, PS Reports and Theses added during the year	1,622
6	Number of print Journals subscribed	293
7	E journals made available on library site	6,000
8	CD-ROM collection (including VCDs)	2,330
9	Educational Video Cassettes collection	148
10	Total number of reading seats in the library	750
11	Total library area	65,000 sq.ft

12	Library membership	4470
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### Medical Centre

The medical center is providing good services and facilities with the dedicated services of Medical Superintendent and Physician Dr. R. P. Pareek and his team. There is a Gynecologist and Obstetrician, Dr. Sanjana R. Bhat working fulltime at the Centre. A General Duty Medical Officer from Birla Sarvajanik Hospital is there to assist in the evening hours. Dr. Sanjay Katewa, the dentist is available on every Saturday evening while the ENT specialist, Dr. H. S. Sankhla is available on every Monday and Thursday evening for expert opinion. Services of an Ayurvedic Specialist, Dr Ramesh P. Jajoo are available on every Sunday morning. Homeopathy specialist Dr. Diwakar Pathak is available on Tuesday evening.

The center has a well-equipped clinical laboratory with as fully automated biochemistry analyzer for biochemical tests, computerized ECG machine for the diagnosis of heart ailment and an ELISA Reader for the diagnosis of other diseases. The laboratory has upgraded facilities to test glycosylated hemoglobin, which is one of the most important tests for diabetes. A Dental X-ray unit and a basic Physiotherapy unit are located in the centre. The center has a computerized Spirometer, to help in the diagnosis of respiratory problem of the students and staff of the Institute.

During the year around 33800 persons were treated at the Medical Centre and about 4050 persons were tested in the laboratory for various hematological and biochemical tests. Patients utilized the physiotherapy facility and about 680 patients were tested by ECG, Spiro meter and Elisa Reader instruments.

Camps were held to make people aware of osteoporosis. Bone Mineral Density (BMD) was measured by ultrasonography unit and computerized analysis was done. Reports with comments were given to all the persons attending the camps. Around 100 people were examined in each camp. These camps were sponsored by pharmaceutical companies.

The new record keeping system is working well after its introduction in the centre in May 2007. All the faculty and staff members with a PSRN have been given ID cards for all members of their family and separate files are maintained to keep the records. The Medical shop in the centre provides the medicines prescribed by the doctors on credit on production of the ID card and this has reduced the cash transaction and paper work. Same process is followed for the Clinical investigations also. Most of the medical center operation is computerized so as to make all the reports and records in digital form.

Credit facility for tests and medicines is now also extended to students on the production of ID card.

A new observation room has been provided for short term treatment. It has a multipara monitor and facilities for emergency treatment.

A new ambulance was procured last year by the institute with all modern equipment and facilities.

Agreements have been made with Medanta Hospital, Gurgaon, Fortis group of hospitals at Delhi, Gurgaon, Jaipur and other places and Santokba Durlabhji Memorial Hospital, Jaipur for emergency treatment and cashless facility for Indoor patients.

### BITS Coop

The BITS Consumers Cooperative Stores Ltd. Continued to extend its services to the staff and students of the Institute. Its total membership as on 31st December 2013 was 1018 consisting of 734 staff members and 284 students. They were holding 3400 major and 656 minor shares of the stores. The scope of its activities covers the following:

1. Supply of groceries and vegetables to the students messes;
2. Sale of groceries and vegetables to the staff members;
3. Supply of stationery and general merchandise;
4. Supply of consumables, stationery, equipment and other materials to the Institute and Books to Library;
5. Supply of books to the students;
6. Running a bookshop and organization of a permanent book exhibition;
7. Providing computer and mobile repair services; and
8. Running a Medical Store in the Medical Centre of the Institute.

### Infant Care Centre



The Infant Care Centre (ICC) is run voluntarily by faculty wives and it takes care of the pre-school training and education of the children in the age group of three to five years. The Centre primarily caters to the needs of staff children belonging to BITS and the sister organizations. During the year 2013, the Centre had 65 students. In the current year, major renovation was done in the centre and the name of the centre is changed to **Blossom Kids-Zone (BKZ)**. During this period the center had organized various activities such as sports competition, drawing competition, fancy dress competition etc. The Annual day program of the center was held on 21st February 2013 and Prof G Reghurama was invited as chief guest of the function. The children of the centre also participated in the program held on Gandhi Jayanti, organized by BITS.

#### **Institute festivals**

Past year saw 4 major functions sponsored by BITS Pilani, Pilani campus which were hosted at Institute's Pilani premises. Team of faculty and support services under the co-ordination of faculty-in-charge, Institute Functions carried out tasks with guidance from Institute's Director. Following events were celebrated with zeal in 2013: 26th January, Founder's Day on 14th February, Ramnavami in April, 15th August for Independence Day and 2nd October for honoring Gandhi Ji's birth anniversary. All functions were organized successfully and saw good participation by Institute's students, faculty, staff and their families. Celebrations for Gandhi Jayanti on 2nd October 2013 where marked by Blossom Kidz Zone's kids presenting a colorful program reflecting essence of Gandhi Ji's ideas. A set of favourite songs of Gandhi Ji were also performed by BITS students.

#### **BITS House Allotment Committee (BITSHAC)**

Estate Management Unit also looks at house allotments to staff members of BITS Pilani (BITS House Allotment committee (BITSHAC). The Primary aim of the BITSHAC is to streamline regulatory guidelines for the allocation of accommodations to Staff members and implement a transparent and a fair policy in a consistent manner so that all applicants with similar eligibility characteristics are treated alike with openness while maintaining individual confidentiality to requesting Staff members, following 'Best Practices and Framework of Guidelines', keeping in mind the circumstantial variability and complexities.

BITSHAC acts in a manner to encourage equal opportunities and will seek to ensure that information on the Allocations Policy gets disseminated in a consistent manner. The BITSHAC invites applications against a circular / notice from Staff members on a monthly basis in a prescribed format or as and when vacancy arises and does the allotment as per guidelines framed. The document on guidelines has been framed and the same implemented in all campuses with slight variations based on local environment.

#### **BITS Staff Housing Group**

The BITS Staff Housing Group constituted in the year 1989-90 by the Institute. For helping the BITS Staff members for having personal houses in the new campus, "Gyan Vihar". The Institute has provided Rs. One lac Fifty Thousand as soft loan to staff members for the construction of the houses. Forty staff members have constructed their houses and many other staff members are planning to start the construction work soon. Both the sectors have been provided with urban electric supply. Two new-cemented road of 300 feet long has been added in sector number one. Streetlight has also been provided. All activates of the Gyan Vihar are under Public Relations Unit

#### **Recreation Activities Forum (RAF)**

The Executive Committee of RAF selected and screened many good Hindi and English movies, which were enjoyed by the members and their guests during the year. During the two semesters RAF membership for both Hindi and English sections together was:

Second Semester 2012-2013:	1220
First Semester 2013-2014:	1743

During the year, RAF executives had also helped to organize cultural events involving students of the Institute in the succeeding year.

#### **Loan facilities for Staff members**

##### **(i) Staff Furniture Loan**

Under this scheme the staff members get interest free loan re-payable in twenty four monthly installments. Institute provided Rs. 10,50,000/- loan to 105 staff members for the purchase of various furniture items.

## (ii) Computer Loan

This facility was started in the year 1999 for the purchase of computer for personal use by staff members with a simple interest of 6% per annum. It is being utilized effectively by faculty. This year Rs. 2,82,000/- has been given to 9 staff members for this facility.

## (iii) Housing Loan

The Institute provided housing loan of Rs. 3,00,000/- during the year 2013 for the purchase/ construction/ renovation of houses to 2 staff members..

### Publications and Media Relations

Publications and Media Relations Unit brought out the following publications during the year: (i) Annual Report (ii) Annual Report – a quick glance (iii) BITS in the News (iv) Bulletin (v) BITSCAN magazine. Besides, the unit gave effective support for coverage of Institute events in the media which is evident from the large amount of media coverage BITS received (both in national and local press) during the year. PMRU regularly sent latest news to the web team of the Institute for updating on the Institute website. Also the PMRU team provided support to various departments and student bodies in branding matters while bringing out their publications, posters, brochures, invitations, etc. Student volunteers who worked as reporters in the Unit found the work experience very useful.

## (i) Reprography

The Reprography Section takes care of all the in-house printing, binding and photocopying work, (e.g. printing of institute bulletin, application forms, annual report, various information brochures, time table, academic regulation, educational development division notes, answer booklets and project reports for submission to various Government and other funding agencies). The printing and binding sections have been fully equipped with facilities like desktop printing, computer type setting, drafting, off-set printing, laser printer, cutting, laminating, stitching, spiral binding, etc. Reprography has separate question paper printing/copying facility where the scripts related to assignments, tutorials, quizzes, test and comprehensive examination for all courses offered in on-campus or off-campus programmes are printed.

Apart from Institute work, the reprography section also caters to the printing and publishing needs of staff and students. Services like, photocopying of journal articles, laser printing, binding and lamination of project reports are available round the clock. Reprography also support printing requirements of various student activities like, OASIS, APOGEE, BOSM and other activities undertaken by various clubs and associations. The printing and publication requirement of conferences and workshops organized in the Institute is also supported by reprography. The day-to-day maintenance and repair of all the reprography related machines/ equipments are also done by the staff of the Institute.

## (ii) Communication and allied facilities

The following facilities are available for the benefit of students and staff.

1. *Telephones*

Each hostel has been provided with a receiving telephone facility placed near the common room.

2. *FAX*

One FAX machine each has been placed for use by students and staff in Reprography.

3. *Dispatch facility*

All the Institute dispatch requirements are catered through reprography either through ordinary/ speed post facility available at the Vidya Vihar Post Office, Pilani or through private courier and cargo carriers for both domestic and international destinations as per needs.

4. *Color Photography Lab.*

The lab has following facilities: Camera: Olympus Digital SLR Camera E 300, Cannon EOS 500N, Durst Color Enlarger (Model M-670), processing timer, temperature controlled paper processing tank, 35 mm SLR Camera (Pentax K 1000) with flash gun (mega 988 twin), temperature controlled film processing tank with 6 developer tanks, Cannon Zoom Lens EF 75-300 mm Pentax wide Zoom lens 35-80 mm and enlarger timer.

#### 6. *Photocopying and allied facilities*

Photocopying, printing, word processing, binding and laminating facilities are available for students and staff on charge basis at Reprography section. Photocopying service is also available at the BITS Library.

### **Central Workshop**

The Central Workshop of the Institute imparts training to the students and caters to the maintenance and fabrication needs of the Institute. Students' training consists of training all integrated first degree students through the course 'Workshop Practice' by imparting skills in various manufacturing processes like machining, fitting, turning, carpentry, smithy, sheet metal, electroplating, welding, etc. In addition, students are imparted training for other courses like 'Production Techniques', 'Metal Forming and Machining', 'Casting and Welding', 'Computer Aided Manufacturing', and 'Flexible Manufacturing Systems'. Apart from routine maintenance, fabrication and training, the workshop also accepts jobs on precision fabrication of project work of students, staff and research scholars.

The workshop comprises the following sections: Machining, Welding, Electroplating, Fitting, Smithy and Sheet Metal, Carpentry, Foundry and Patterns, Tool Room, Metrology, Painting, Metal Processing and Metallurgy, Electrical, Automobile, CNC Training Centre and Store. The major equipments include industrial vertical machining center (LMW KODI 40 Klein), five CNC trainers (three turning centers and two vertical machining centers), industrial robot (pick and place), five universal milling machine tools, universal cylindrical, centreless, surface (hydraulic), and tool and cutter grinders, gear hobbing machine tool, NC machine tool (retrofitted at workshop), thirty one lathes (centre, turret, capstan, precision and dc supply heavy duty), seven shapers, planner, slotter, twelve drilling machines, ten wood working lathes, two wood working planers, band, circular and universal wood saws, TIG, gas and arc welding equipment, power press, pneumatic hammer, etc.

### **Instrumentation**

Instrumentation unit undertakes regular and annual maintenance of laboratory instruments across the Institute.

Instrumentation unit provides LCD projection facility for regular class-work in fifty plus classrooms, workshops, conferences, symposiums and other academic and cultural activities across the institute. The centre also performs preventive maintenance for these projectors.

The centre facilitates institute programs with high quality Public Address Systems, Digital Mixers and Hi-Fi loud speakers and Lighting equipment to make the events more effective and lively.

The centre maintains the 128 Port C-DOT EPABX of VFAST Hostel.

The center has been providing and maintaining cable TV system with Seventy plus channels for BITS and BET staff members. Through this network important educational and cultural programs of the Institute are shown over the BITS channel. Fiber link has been placed from service provider to control room and from control room to Meera Bhawan. Tata Sky dishes have been installed in all hostels's common rooms.

All classes have been equipped with projection facility supported by UPS. Unit has procured some state of art equipment like Kramer switch, Logitech presentation remote, 4 Unit x LED par 64 LED stage par cans light 36x3W RGB DMX RGB Infinite color mixing with Control mode: Work Auto, Sound active, master/Slave, DMX512, LED control panel, Irradiant SRC-146 Lighting Controller, 24 Channel Lighting Controller and Panasonic memory card camera-recorder

In-house training for technical staff across the institute in maintenance of lab equipment, PA system, EPBAX, projection system, cable network, lighting systems and computer hardware was organized in summer of 2013 (17th June - 10 July), 19 nonteaching staff attended the program.

Faculty members of the group are involved in research work in areas of Fiber Optic Sensors, Intelligent Instrumentation and Control, Signal Processing, VLSI design. Faculty has published research work, attended National and International seminars, conferences and invited talks.

### **Information Processing Center**

Information Processing Centre (IPC) provides computing facility for students and staff of the Institute. The Centre is responsible for planning, need forecasting and maintenance of computing resources across the Institute. The Center has signed campus agreement and MSDN Academic Alliance with Microsoft for

licensing Microsoft software tools. Under this agreement Microsoft provides its server products and application development tools at highly discounted rate. With a view to upgrade the computing resources, across the Institute, 150 desktop machines and a few printers & peripherals were purchased. During the year, Centre has been involved in setting up of 1500 node network for New Academic Building and WILP.

With the augmentation of existing facilities, the Centre has been able to support conduct of online examinations, structured and unstructured labs for more than 30 courses offered by Computer Science and other departments. The center has also been involved in supporting the number of workshops and training programmes conducted in the Institute.

The IPC is open on all days throughout the academic session from 08:00 A.M. to midnight and it is closed only for 3 days in every semester. The details of existing facilities in the IPC are given below.

The Center has a Blade Server with 6 blades and 10 numbers of Intel based SMP servers, supporting variety of operating systems and development tools. These systems operate under UNIX and Windows environment and support variety of compilers database and software tools such as C, C++, Lisp, Microsoft Visual tools, Matlab, PSPICE, Rational Rose etc. The Centre has 350 numbers of desktop machines, with Windows 7/ Linux and variety of software tools. The central computing facility specifically takes care of the bulk computing needs of students in their courses, which needs acquiring and use of computer programming skills. It also caters to large number of computer projects of First Degree, Higher Degree and Ph.D. Students.

Apart from the above mentioned centralized computing facility, the Institute has workstations and Pentium machines distributed at various other locations. These Centers are placed near to the locations requiring Computer Aided Modeling & Design, computer-based instrumentation and experiments as well as other activities. In addition to this the various departments have their own computing facility supporting specialized tools.

### ***The BITS Intranet***

IntraBITS is a collaboration-category intranet portal deployed and supported by the Software Development and Educational Technology Unit (through its Centre for Software Development) since 1999. Its principal objective has been to enable the faculty and students to leverage appropriate software technologies in the On-Campus educational (teaching, learning, sharing) process. The followings are some of the highlights of the BITS Intranet. This portal has gradually expanded to multiple independent sites linked to it.

- Several learning materials, prepared by faculty members over a period, have been deployed on the Intranet. The courseware spans from simple lessons on HTML pages, online presentations, to fully interactive learning applets. 'Intrabits', in this sense, also acts as a Test-Bed for the BITS-VU project.
- In addition, faculty members can upload lecture slides, assignments, notices, lecture notes etc. through the in-house developed Course Management Tool. This tool allows them to carry out grading (Mid-Sem and End-Sem) for their courses. This facility is open only to the Instructor-in-charge of each course. Students can log into the IntraBITS portal and see the material, notices and grading information as published by the faculty member for their benefit.
- In addition, an On-line Learning Management System (Nalanda) built in 2010, atop LAMP and Moodle platforms provides a complementary globally accessible service that aims to serve the entire community, both on-campus and off-campus.
- Recently, an online Notice-Management System developed by the CSD has been integrated with this portal.

The BITS Intranet is serving as a vibrant medium for exchange of academic and other ideas among students and faculty.

### **Computer Assisted Housekeeping**

The Computer Assisted Housekeeping Unit (CAHU) is a central facility of the Institute, which provides centralized information management and processing for Computerized University Administration to all the sections of BITS. CAHU continuously endeavors into new areas in order to introduce and enhance the use of computers in the University Administration to minimize manual work and to bring in the efficiency and accuracy in the administration. Students, through academic projects, and the faculty members, have developed the entire software in-house. The academic and technical staff members at CAHU have expertise in software maintenance, management, development, and computer operations, to meet the wide-ranging computerized housekeeping needs of the Institute. The computing resources include HP9000 E35 system, HP rp3440 system with SAN array, HP Proliant DL360G4 and HP ML-350 servers, IBM servers,

Pentium/Core2-Duo PC nodes, HP LaserJet8150 and 9050dn, HP Color Laserjet 5550dn printers and other peripherals.

CAHU has successfully developed software packages for the following administrative activities and these are fully operational:

**(A) Student Related**

- Student records initialization after electronic transfer of new admissions data from Admission Division;
- Providing inputs to Instruction Division for computer-aided timetable preparation and uploading of timetable data from electronics files for on-line registration;
- Eligibility Sheet, Registration Card and other pre-registration aids to ARC Division; Online Registration; Registration Validation, Timetable clash checks; Online Registration Amendments processing;
- Course lists for the instructors; Faculty timetable and course details at ARCD website. Grades processing and Grade sheets production;
- PS/TS Eligibility, Graduation Eligibility, Results and Medal Awards Processing; Results for EC/Senate/BOG for Pilani, Dubai, K. K. Birla Goa and Hyderabad campuses;
- Transcripts for continuing students; Transcripts and Provisional Certificates for graduating students of Pilani, Dubai, K. K. Birla Goa and Hyderabad campuses; Medal Awards Processing;
- Degree/Diploma writing for Pilani, Dubai, K. K. Birla Goa and Hyderabad Campuses programs; address labels and other dispatch aids;
- Electronic and web transfer of registered student data to Student Welfare, Practice School, and Instruction Divisions, Library, Publication and Media Relations and other units and BITS website.
- Alumni database development and maintenance; Alumni Directory and Alumni Website maintenance; Maintenance of websites for computer projects courses etc.

**(B) Staff Related**

- Staff information base for all administrative requirements such as term expiry, superannuation, review etc.;
- Payrolls and monthly Income Tax processing;
- Provident fund and Employee Pension Scheme processing and web display.

**(C) Accounts Related**

- Complete on-line maintenance of BITS accounts including Government fund accounts;
- Preparation and online processing of payment vouchers and receipts;
- Preparation and printing of daily cash book, ledger, journal and other reports as and when required;
- Trial balance (talpat) preparations; Bank account reconciliation statements;
- Monitoring of advances and loan accounts;
- Preparation of financial year trial balance and balance sheet;
- Budget preparation and monitoring; Preparation of reports for auditors;

For the following cases software packages were modified / enhanced during the year:

- As the move over to ERP system is being planned in near future, in this calendar year the main work was providing data to ERP systems and closely working with ERP implementers. Payroll data is loaded in ERP in parallel to legacy system and errors and exceptions are being fixed. Due to these, not much development work was taken up except for the following essential activities.
- Students' academic package to accommodate changes in Academic Regulations and other Senate decisions. Specifically new academic curriculum related corrections and new grading policy related modifications.

- Development of various aids/software packages for on-line registration. Because of these enhancements, the registration errors by students are further reduced. The online registration software modules are now running successfully for the last twenty-five semesters in real time and are found to function without any error, each time registering more than 3500 students in less than four hours.
- Degree processing and printing: 334 degrees (Pilani-161, Goa-84, Dubai-53, Hyderabad-36) for 72<sup>nd</sup> award and 3011 degrees (Pilani-1225, Goa-749, Dubai-310, Hyderabad-727) for the 73<sup>rd</sup> award were printed using the enhanced software. The degrees were made available on time for the convocations held July-September 2013.

### Central Analytical Laboratory Facility

This laboratory houses many sophisticated analytical instruments, which are used for training and teaching of students and research work. The instruments in the laboratory include UV-Visible Scanning Spectrophotometers, IR Spectrophotometer, Scanning Spectrofluorimeter, Manually operable and digital Polarimeters, Gas Chromatography, Binary Gradient High Pressure Liquid Chromatography, Amino acid station and Double beam UV-Vis-NIR Spectrophotometer, Flame Photometer, High Speed Vacuum Concentrator cum Lyophilizer, Gel Drying instrument with fluorescence detector, data station for HPLC, FT-IR Spectrophotometer, Digital Fluorimeter, Paper Electrophoresis, Environmental Cabinets, etc. Recently Elemental Analyzer has been added to further strengthen the facility. Apart from using the Central Analytical Laboratory facilities for teaching and training of the First Degree and Higher Degree students, it is extensively used for dissertation and doctoral research, faculty research and consultancy work. It is also used by scientists/faculty from other nearby organizations.

### Central Animal Facility

Central Animal Facility at BITS Pilani, Pilani campus is a CPCSEA approved facility with total floor area of 5330 sq. ft. The facility maintains the animal species like Rats, Mice, Guinea Pigs, Rabbits and Hamsters. The facility was built up in accordance with guidelines issued by CPCSEA and other regulatory bodies. It is also equipped with Incinerator (electrically operated) facility for disposal of the biological and other biomedical waste. The air conditioned facility is maintained by well trained personnel, with a full time veterinarian to take care of the various requirements of the animals. Central Animal Facility caters to the needs of the various research departments like Pharmacy, Biological Sciences and Chemistry, etc. The facility also incorporates pharmacokinetics and pharmacology research laboratory for carrying out advanced research in the areas of pre-clinical pharmacokinetics, bioavailability studies, pharmacological screening of various synthetic/natural origin drugs. The laboratory has sophisticated instruments such as electroconvulsimeter, actophotometer, analgesiometer, light dark apparatus, rotarod etc. Equipments such as surgical anaesthesia machine, electrical cautery, and spare air-conditioners are also utilized. The laboratory is upgraded with video documentation system for various animal behavioural studies. Facility is geared to take up various industrial or governmental funded projects in various pre-clinical areas.

## B1.13 MAJOR MAINTENANCE, RENOVATIONS OR NEW CONSTRUCTION REPORTS

### Maintenance, Renovation and Construction

Apart from carrying out routine maintenance of the institute and campus buildings the following works were taken up during the year either as new construction or as renovation:

#### *Works Completed*

1. Installation of RO Machine 500LPH & 250 LPH Capacity in Institute Building-FD-I, FD-II, FD-III including RP, Ashok, VKB, KG, SV, Malviya & Meera Bhawan Messes.
2. Construction of Synthetic Basket Ball Court.
3. Renovation of S-type quarters.
4. Construction of new bore well behind Prefab hostel.
5. Renovation & construction of boundary wall for Blossom Kids Zone (Infant Care Centre).
6. Separation of 11KV HT-Line between BITS from BET
7. Renovation of Malviya Bhawan Mess.
8. Renovation of B-type & C-type quarters.

9. Renovation of VFAST Hostel 8 rooms.
10. Installation of LPG pipe line in SR, VK, BG, KR & SV Messes.
11. Provision of AC all HOD's office.
12. Renovation of VC office.
13. Electrical renovation work in RPA and VKB Mess.
14. Anti termite work in Placement, Project Office & Prefab Hostel.
15. Renovation of dining hall of Messes.
16. Pavers fixing at different pavements.
17. Renovation and Augmentation of 'D' type quarters: Doors and window, flooring, toilets, courtyard and electrical fitting, inner & outer painting.
18. Astronomy lab/ Room renovation work
19. WILP exterior development work.

#### **Works in progress**

1. Treated water pipe line laying work
2. Road repair work.

Annual maintenance and repairs of Hostels, Messes, Laboratory equipments and class rooms were carried out during summer and winter vacation.

### **B1.14 MAJOR EQUIPMENTS ACQUIRED DURING THE YEAR**

#### **Centralised Purchase**

Centralised Purchases Unit processes and monitors purchase of equipments and consumables of the institute and also looks after the repair requirements of the equipments. The purchase process includes request of quotations, preparation of comparative statements, indents, bill checking and status reports of purchase. The entire process is managed by computer database containing more than 4000 types of consumable, 1000 equipments, and 1800 suppliers. The whole process being computerized ensures efficient monitoring, timely acquisition of materials, keeping track of delayed or deferred supply and concurrent remedial action.

**Purchase of consumables:** The annual purchase list for consumables are finalized by considering the institute requirements and existing stock. The consumables are computer stationery, chemical and glassware, electrical and electronic spares, workshop items, reprography items and sports items. The category in-charges process the requirements of individual groups, units, and divisions, and compile them into a consolidated list. The consolidated list of consumables, along with the estimated budget, is presented before the purchase committee. The purchase committee gives approval to this list after scrutinizing it and suggesting necessary modifications.

**Purchase of equipment:** The equipment purchase of the institute is normally done under various government sponsored grants like AICTE, UGC, DST, DOE, BRNS/DAE, CSIR, DIT etc. and also through the BITS non-recurring grant. The purchase of equipment essentially involves interaction with the user and approval from the purchase committee with regard to the type of equipment, cost, budget head, terms and conditions of purchase, import components etc. On approval, the normal process of purchase is undertaken and in cases of imported items, the required protocol is followed.

**New equipments acquired:** New equipments purchased in this calendar year include more than 800 in various engineering and science disciplines for BITS-Pilani. Some of the equipments are also purchased for BITS-Pilani, Goa Campus and BITS, Pilani-Hyderabad Campus. Computational facilities have been substantially strengthened by addition of computer systems and networking hardware. The list of major equipment added during this year for various courses are included in the '*Annexure B1-13*'.

#### **Equipments and Accessories for BITS Admission Test (BITSAT):**

BITSAT is for admission to integrated admission program for all the three campuses of BITS-Pilani at Pilani, Goa and Hyderabad through a computer based online test conducted by BITS. CPU Procured items like servers, cables, firewalls, laptops, printers, scanners, etc. for this purpose. The list of major equipment included in the '*Annexure B1-13*'.

## B1. 15 STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVALS

### Students Union

The Students' Union elected the following executives for 2013-2014:

<b>President</b>	-	Aditya Bhatt
<b>General Secretary</b>	-	Vaibhav Singh

### Hostel Representatives

<b>Bhawan</b>		<b>Name</b>
<i>Ashok Bhawan</i>	-	Ganta Sujeeth
<i>Bhagirath Bhawan</i>	-	Ganta Sujeeth
<i>Budh Bhawan</i>	-	Toshaniwal Meghesh Sushil
<i>Dayscholar</i>	-	Shakti Singh
<i>Gandhi Bhawan</i>	-	Shivampeta Sheshank Reddy
<i>Krishna Bhawan</i>	-	Shivampeta Sheshank Reddy
<i>Malaviya Bhawan (C)</i>	-	Gudipati Sivanagaraja Kiran Kumar
<i>Malaviya Bhawan (A &amp; B)</i>	-	Varun Jampala
<i>Malaviya Bhawan (D)</i>	-	Varun Jampala
<i>Meera Bhawan 12378 and OLD</i>	-	Saumya Shrirup
<i>Meera Bhawan</i>	-	K Meher Gitika
<i>Ram Bhawan</i>	-	Vacant
<i>Ranapratap Bhawan</i>	-	<i>Adbhut Gupta</i>
<i>Shankar Bhawan</i>	-	Sagar Kumar Chourasia
<i>Sriramanujam Bhawan (CD)</i>	-	Aakash Juneja
<i>Sriramanujam Bhawan (AB)</i>	-	A Reddy Kumara Simha
<i>Vishwakarma Bhawan</i>	-	Shrayansh Kothiyal
<i>Vyas Bhawan</i>	-	Annem Rushyant Reddy

### Secretaries of Clubs

The following were elected Secretaries for various Clubs and Societies:

<b>Club/Society</b>		<b>Name</b>
Creative activities club	-	Amitesh Ranjan
English drama club	-	Abhishek Adiga
English languages activites society	-	Rohan Passey
English press club	-	Debolina Sarkar
Hindi activities society	-	Dhruv Aggarwal
Hindi press club	-	Mohammad Atif
Music club	-	Sachin Iyer
ARBITS	-	Adwait Deshpande
Dance club	-	Shail Pillay
Jhankar	-	Mihir Dharap
Photography club	-	Chetan Aditya
Firewallz	-	Akhil Varma
Poetry club	-	Tanayveer Singh
Mime club	-	Tushar Nigoskar



The Students' Union organized a host of events throughout the year.

### **Sports Club**

The office bearers of the Sports Club constituting the sports committee for the year 2013 were

<b>Secretary</b>	-	Mohammad Shakir
<b>Joint Secretaries</b>	-	1. Ayush Rawat
	-	2. Yashraj Tripathy
	-	3. Parinitha Sadineni Chowdary

The names of the captains for various games/sports are given below:

<b>S.No.</b>	<b>Games / Sports</b>	<b>Name</b>
1	Athletics (boys)	Akshat Singhal
2	Athletics (Girls)	Mehak Banger
3	Badminton (Boys)	Sankalp Bhatia
4	Badminton (Girls)	Anubha Kaushik
5	Basketball (Boys)	Prasham Mishra
6	Basketball (Girls)	Shubhi Agarwal
7	Carrom	Chandak Vivek Sanjay
8	Chess	Suryaprakash Kanoria
9	Cricket	Mohit Padhy
10	Football	Heman Walia
11	Hockey	Shaurya Kaushal
12	Lawn Tennis (Boys)	Anirudh Sharma
13	Lawn Tennis (Girls)	Bandi Kirthi
14	Power Lifting	Solanki Prem Kishore
15	Squash	Agam Kapur
16	Swimming (Boys)	Raunak Manekar
17	Swimming (Girls)	Shruti Rijhwani
18	Table Tennis (Boys)	Ayush Jain
19	Table Tennis (Girls)	Bahety Urvi Prashant

### **Sports Events organized during 2012-2013**

#### **BITS Open Sports Meet**

The BITS Open Sports Meet (BOSM) was conducted successfully from 18<sup>th</sup> to 22<sup>nd</sup> September 2013. As in the past the institute organized an intensive coaching camp from 3<sup>rd</sup> to 17<sup>th</sup> September 2013. Rajasthan State coaches were invited to prepare Institute's teams in various events. More than 1100 outstation students from all over the country participated in the meet. The meet was characterized as having displayed sportsmanship spirit and was full enthusiasm..

The results were as follows:

1.	Badminton (Boys)	Winner – KDU, Sri Lanka, Runner-up – RAIT
2.	Badminton (Girls)	Winner – St.Xavier, Kolkata Runner-up – BITS, Pilani(A)
3.	Football (Boys)	Winner - BITS, Pilani Runner-up – RAIT

4.	Power-lifting	Winner – Runner-up –
5.	Hockey (Boys)	Winner – SRCC, Delhi Runner-up – Gyan Vihar, Jaipur
6.	Swimming (Boys)	Winner – BITS, Pilani Runner-up – UFYLC, Jaipur
7.	Swimming (Girls)	Winner – BITS, Pilani Runner-up – UFYLC, Jaipur
8.	Table Tennis (Boys)	Winner – KDU, Srilanka Runner-up – BITS, Pilani (A)
9.	Table Tennis (Girls)	Winner – Maharani, Jaipur Runner-up – BITS, Pilani (A)
10.	Volleyball (Boys)	Winner – Loyola, Hyderabad Runner-up – Chitkara
11.	Volleyball (Girls)	Winner – BITS, Pilani Runner-up – MNIT, Jaipur
12.	Basketball (Boys)	Winner – LNIPE Runner-up – BITS, Pilani
13.	Basketball (Girls)	Winner – SRCC Runner-up – Venkateshwarra
14.	Cricket	Winner – BITS, Pilani Runner-up – SRM
15.	Chess	Winner – BITS, Hyderabad Runner-up – BITS, Pilani
16.	Tennis (Boys)	Winner – BITS, Pilani Runner-up – MNIT
17.	Tennis (Girls)	Winner – Maharani Runner-up – BITS, Pilani
18.	Body Building	Winner – BKBIET, Pilani Runner-up –
19.	Carrom	Winner – Runner-up –
20.	Squash	Winner – St. Xaviers, Kolkata Runner-up – BITS, Pilani (A)

The **Intra-BITS Sports Meet** was conducted during Second Semester 2012-2013 (28<sup>th</sup> to 6<sup>th</sup> April 2013) and the valedictory function was conducted on 21<sup>st</sup> April 2013, with enthusiastic participation from more than 700 students. The **Inter-Bhawan Championships** were conducted during Institute holidays in the II Semester 2012-2013, and around 700 students took part in various events. The winners were awarded with trophies and certificates.

#### **Outstation Participation**

Various sports teams consisting 112 students were sent to participate in VARCHS'13 a Sports Meet held at IIT, Jodhpur during 7<sup>th</sup> to 10<sup>th</sup> Feb 2013.

Institute Taekwon-do Men Team (consisting of 4 students) participated in Taekwon-do Championship held from 8<sup>th</sup> January to 11<sup>th</sup> January 2014 at Chennai. The Team won 3 gold and one silver.

**Swimming Club**

The total membership of the Club consisting of Swimmers, Advanced Beginners, Beginners and Staff was 619. The break up is given below:

<b>S.No.</b>	<b>Category</b>	<b>II Semester 2012-2013</b>	<b>I Semester 2013-2014</b>
1.	Boys (Swimmers, Advanced Beginners and Beginners)	153	279
2.	Girls (Swimmers, Advanced Beginners and Beginners)	47	64
3.	Staff (Swimmers, Advanced Beginners and Beginners)	36	40
<b>Total membership</b>		<b>236</b>	<b>383</b>

Swimming tests for members were held on every Saturday.

The number of members who passed Swimming Tests is given below:

<b>Semester</b>	<b>No. of Members Passed</b>
II Semester 2011-2012	152
I Semester 2012-2013	280
<b>Total</b>	<b>432</b>

The Swimming team distinguished itself by its performance in BOSM 2013 winning by 22 Gold, 25 Silver, and 18 Bronze Medals.

**Health Club**

The Health Club is equipped with various advanced machines for aerobic and anaerobic exercises. During II Semester 2012-2013, the Health Club had a membership of 1000 while in I Semester 2013-2014 it was 946.

**Martial Arts**

Martial Arts classes are conducted for the benefit of students at Students Activities Center. Around 40 students including 5 Girls attended the classes regularly. Out of these, 12 students have learned the competitive skills of Martial Arts. Martial Arts (Taekwondo) also included in BOSM 2013.

**Summer Swimming Camp**

The Summer Fitness Camp in swimming was successfully conducted for children of staff members of BITS from 8 - 20 July 2013 in which 125 children participated. All participants were issued participation certificates during closing ceremony on the last day of the camp.

**Yoga Training Programme, Pranayama and Meditation Camp**

Yoga Training-Pranayama and Meditation Camp is conducted every year by Sports Club for students aiming towards physical and mental development for healthy living with self-realization.

A Yoga Training-Pranayama and Meditation Camp focusing on various types of Asana, Pranayama and Meditation techniques including relaxation was conducted from 04<sup>th</sup> April 2013 to 13<sup>th</sup> April 2013 in which a total of 12 students were registered and 08 students regularly attended the same. The certificate-giving Ceremony was held at the end of the semester.

**Hockey Camp**

A camp on learning basic skills in Tennis was conducted by Sports Club from 05<sup>th</sup> March 2013 to 10<sup>th</sup> March 2013 in which a total of 78 students were registered and 25 students regularly attended the same. The certificate-giving Ceremony was held at the end of the semester.

## Tennis Camp

A camp on learning basic skills in Tennis was conducted by Sports Club from 05<sup>th</sup> March 2013 to 10<sup>th</sup> March 2013 in which a total of 78 students were registered and 25 students regularly attended the same. The certificate-giving Ceremony was held at the end of the semester.

## National Service Scheme

### Introduction

The Birla Institute of Technology & Science, BITS Pilani is an all-India Institute for higher education. The primary motive of BITS is to "train young men and women able and eager to create and put into action such ideas, methods, techniques and information."

BITS Pilani, since its establishment has been striving to develop the community and with a mindset of instilling the thoughts of social awakening in its students as well, established National Service Scheme as early as 1969. Over the past few decades, NSS has been working tirelessly in the surrounding villages, to develop the community in the spirit of nation building. NSS also provides students the opportunity of developing leadership skills, and develop a sense of social and civic responsibility.

### Faculty Body Structure

NSS Faculty Coordinator: Dr. Hitesh Dutt Mathur

NSS Program Officers:	Dr. Anupam Singhal	Dr. Champak Baran Das
	Dr. Umesh Dhyani	Dr. Sanjiv Kumar Chaudhary
	Dr. R.P. Pareek	Dr. Hari Om Bansal
	Dr. Sanjana Bhat	

### Activities

The following is the brief overview of the NSS BITS Pilani activities undertaken during 2013:-

#### 1. Literacy Program

One of the regular activities of NSS in BITS Pilani, literacy program strives to provide quality education under privileged children in Pilani and its surrounding villages. Along with regular education volunteers put efforts to make them aware about various social issues and in turn by build better citizens. In August 2013, NSS was allocated a new quarter to run its literacy program. 40 volunteers attended to eighty students a day, as a part of the school program. The school is not all about education as various students have been learning at the school for most of their schooling life and hence develop an emotional bond to the volunteers and NSS. This motivates our volunteers too, and results in continuous improvisation in the teaching methodology, including the use of laptops, etc. for teaching.

Volunteers have a strong bondage with the students, and this is further enhanced by the celebration of various festivals in the school itself.

##### 1.1 August-November 2013

Some new volunteers are recruited at the beginning of every Year. The classes started from 3<sup>rd</sup> week of August 2013 and are continued till the end of November 2013. Apart from regular academics, children were also involved in extracurricular activities like organizing functions on the occasion of Independence day, NSS day and Diwali.

##### 1.2 January- April 2013

The running of the school was made more systematic from this semester, by allotting various volunteers as individual mentors to the students. Through their mentors, the academic performance was continuously monitored, and the students were motivated to think about their future as well, and various issues that could hamper their education were brought to the fore. NSS FAMILY and volunteers from TEACH FOR INDIA celebrated Republic Day with the kids and different activities like quizzes, games, painting, etc. were planned for the kids. Common classes for English, basic Arithmetic and Hindi were also taken. Continuous evaluations along with some extra-curricular activities were done on Sundays.

## 2. Health Awareness Related Activities

### 2.1 Blood Donation Camp

NSS BITS Pilani in collaboration with INDIAN RED CROSS SOCIETY, New Delhi conducted 33<sup>rd</sup> Blood Donation Camp at the student activity center of BITS Pilani on 1<sup>st</sup> & 2<sup>nd</sup> February 2014. It was inaugurated by Prof. G. Raghurama, Director, BITS Pilani, Pilani Campus in the presence of Dr. Anupam Singhal (NSS Coordinator), NSS program officers, Sasanka Kireeti (President NSS) and NSS volunteers. The total turn up was around 1200 and the number of units collected was 875, surpassing the earlier highest number of 837 units. This is the most successful blood donation camp organized by an educational institution across the country.

### 2.2 Health Camps and Surveys, in association with Public Awareness Department

The camp was conducted over 3 days from 30<sup>th</sup> August to 1<sup>st</sup> September 2013. The first two days were devoted for mobilisation of the camp. The villagers were informed about the camp and their current provisions were informally asked about. On the third day, **Dr.Sanjana Bhatt** accompanied our team and talked to women about their health related issues. Apart from that, the women were shown videos related to Women Empowerment. A small skit related to Women Empowerment was also performed. Finally, Sanitary-napkins were distributed to the women who attended the camp.

The camp was conducted over 3 days from **18<sup>th</sup> October to 20<sup>th</sup> October**. On 18<sup>th</sup> Oct, General Health Assessment was done and survey was conducted on general health related issues. Next day, mobilisation for the camp was done by our team of 15 volunteers. On the third day, **Mrs.Sangeeta Sharma**, Faculty-in-charge of Centre for Women Studies, attended our camp and talked to women about their health and other social problems. A small skit related to women empowerment was performed followed by distribution of sanitary napkins.

## 3. Computer Literacy Program (CLP)

Today, technology is growing at an exponential rate and there is a great demand for people who know basic computing. Computer Literacy Program or CLP is one such initiative of NSS, BITS Pilani to provide basic computer literacy to the school children of nearby villages, who don't have access to any computer education.

CLP currently carries out its operations at 3 places. One of them is the Pilani Resource Centre, a center established by BITS Pilani alumni. Pratham has provided us with a Computer lab, which is well-equipped with 10 PCs. A total of about 30 volunteers regularly run two batches there, separately for girls and boys in the evening hours, over the whole week. The prime focus is on students who are in the 11<sup>th</sup> and 12<sup>th</sup> standard and those who are pursuing Undergraduate level courses. About 50 people are benefitted by the program every semester. The programme also ran its operations in a govt. school in a nearby village, Ghumansar. A team of 56 Volunteers regularly conducted classes, 3 days a week after school hours, alternatively for girls and boys. The 50 - 60 students, who benefitted from the program, belonged to the age group of 13 to 16 years (8th to 10<sup>th</sup> STD). The programme mainly focused on building a strong knowledge base regarding computers and topics like Basics of Computer and MS Paint and Typing were covered. In addition to the above mentioned programs that it conducted till last semester, CLP extended its programme to BS Saboo School in Pilani. The programme focused on students (boys and girls) in the age group of 14 to 18yrs. (9th to 12<sup>th</sup>STD). Around 60 – 80 students benefitted from the programme and were taught the basics of computer, MSPaint, Typing and Introductory MS Word. 78 volunteers regularly conducted hourly classes 3 days a week (Tuesday, Thursday, Saturday). The programme is in its preliminary stage of implementation and aims to make a difference in those students' life in the near future.

## 4. Special Events

### 4.1 Junoon - a sports fest for differentially abled

Junoon is a sporting extravaganza for the specially abled. Started in 2012, Junoon 2k13 was organized on the 7<sup>th</sup> and 8<sup>th</sup> of September 2013. Junoon on its second occurrence saw six NGO's with around 150 children participating. The occasion was inaugurated by Mrs. Madhu Jain, an activist associated with many prominent NGO's across the country. Several team sports events, such as Kho-Kho, tug of war, with significant participation of BITSians were organized as a part of this event. The event culminated with Junoon Nite, which saw the cultural performance from some BITSians and several kids from the NGO's. Junoon 2k13 has been received warmly by the NGO's leaving them awaiting to a next Junoon.

#### 4.2 OASIS Stall 2013

Continuing the tradition of BITS cultural festival, NSS BITS Pilani this year also organized a stall in OASIS 2013. The stall, setup near Krishna Bhawan from 24<sup>th</sup> to 28<sup>th</sup> October, saw more participation & footfall than ever, and was handled by more than 35 volunteers. It was inaugurated by Mrs. Madhu Jain. The Stall had a presence of around 15 NGO's from across the country. Farhan Akhtar, an eminent Bollywood actor visited the stall, and was all praise of the activities NSS has been conducting over the year.

#### 4.3 Dhiti

During APOGEE 2013(technical fest of BITS-PILANI), NSS and NIRMAAN organized an event, Dhiti with an aim of taking technology to the grassroots, by inviting solutions to some of the major problems faced by an emerging India.

Problems on topics like potable water, alternative sources of energy, moisture retentivity etc. were posed and technologically & economically feasible solutions were accepted, some of which are in the process of being implemented.

### 5. Public Awareness Programs

1. Financial Literacy programme: A one day Camp was organized at Raila in order to create awareness among people about benefits of having bank accounts, Grameen banks schemes etc. A survey was conducted to know about number of people having bank accounts, showed videos about the same, spread door to door awareness about banking. People turned up in good number showing interest in the cause.
2. Ill effects of drugs: Two camps were organized in Raila to spread awareness about ill effects of drugs. A door to door survey was conducted to know about the habits of people.

#### OASIS 2013

BITS Pilani celebrated the 43<sup>rd</sup> edition of OASIS, its annual cultural festival from 24<sup>th</sup> to 28<sup>th</sup> October 2013. This festival, managed entirely by the students, was mainly sponsored by Kellogg's, MTS, Vasline, WOODLAND and Parikramainc. It attracted about 1500 outstation participants from about 90 colleges situated all over the country. The festival hosted as many as 75 events which were based on music, art, dance, photography, drama, literature and every other cultural aspect of the college life. The theme of the festival was 'The Elements'.

The Music show by Mr. Farhan Akhtar, a killer comedy show –N20 featuring 'The viral fever' and Mr. Vipul Goyal were few of the several highlights of the festival. This festival also featured rock band like 'Soulmate'. Dance, music and pottery workshops were held by professional artists and performers. Events like Rapwars, Desert Duel, street plays, fashion parade, DJ night Mr. and Mrs. OASIS etc. caught the limelight as the students from all over the country were able to stage and showcase their talents.

The National Service Scheme and NIRMAAN along with several NGO's set up an exhibition for the sale of village potteries, garments and other handicrafts. In words of Mr. Vaibhav Singh, The General Secretary of BITS Students' Union, "OASIS is a 96 hours of unadulterated thrill, a ceaseless euphoria that overwhelms every being at hands to witness it".

#### APOGEE 2013

APOGEE is the annual international technical festival (ISO 9001:2008 certified) of BITS Pilani. The 31st edition of APOGEE was held from 15th to 19th March 2013. It had an outstation participation of around 800 students from more than 100 colleges across the country. The festival was chiefly sponsored by ACC cement, IDBI Bank, TCS, Woodland, Texas Instruments, Lenovo, Campus France etc. This edition hosted 100 odd events in various fields like build and design, code and simulate, automation, economania, develop and discover, with the Kernel events being FTGP, stock market simulation, hackathon, robots at war and airborne. Various workshops like telescope making, trading in forex, embedded systems and information security were also organised. The think again conclave was the major attraction of the festival with keynote speakers like Jeff Lieberman (Robotist at MIT), Piyush Pandey (Ad Guru), Devdutt Patnaik (Author) etc. APOGEE 2013 kept up its tradition of innovation breaking unprecedented frontiers

#### INTERFACE 2013

36<sup>th</sup> Annual Management Convention Interface 2013 was the conducted by the students of Department of Management of BITS – Pilani. The theme of the event was BIZ 360 Degrees. The event was for duration of 3 days from 1st February – 3rd February, 2013. Various elite B-Schools marked their presence during Interface 2013 viz. IIM Lucknow, MDI Gurgaon, IMT Ghaziabad, SCM HRD Pune, IFMR (Institute for Financial Mgmt & Research), LBSIM New Delhi, IIT Bombay, FMS Delhi, Department , IIMA, IIT Roorkee,

IIFT, XLRI, MICA, DSE-MIB etc. An active participation was seen from the on – campus students of BITS Pilani as well. The Chief Guest for the inaugural function was Mr. Rajesh Tambe a fundamental analyst based in Mumbai. Mr. Tambe has done a lot of shows on Radio Channel 104.8 owned by India Today and also regularly for news channels CNEB, UTV Bloomberg, NDTV Profit & Zee Business. Various events showcased this year were:- The Renaissance: Marketing Plan competition; Budget Mogul ; Bulls and Bears; Investment King ; NIDAAN ; Case Study Competition ; 4P - Show me the Money ; Rek Root - Market the brand Employer ; Stop Think Format Upgrade.

### Ragamalika

The year 2013 was an innovative year for Ragamalika, the classical music and dance club of BITS, Pilani. The club's activities kicked off with the introduction of the new dancers in the Freshers' Concert which showcased two dance forms - Bharatanatyam and Kathak. Founders' Day saw the club paying tribute to the great composer Thyagaraja, as they do every year. The major show for the semester, *Sangamam*, witnessed eight dancers on stage, the maximum in recent history. The theme, Panchabhootas or The Five Elements, was portrayed with scintillating choreography and formation of patterns. The show even consisted of a lamp dance wherein the dancers performed with lit diyas in their hands. The semester concluded with the veteran violinist Ajay Aditya performing beautiful pieces in his psenti-concert.

The second semester began with the new musicians of the club showing their enthusiasm as singers, percussionists and made the *Freshers' Concert* a magical evening. *Nrityaranjani*, the flagship show of this semester was a different attempt by the club to reach out to the audience and make them understand and connect to the nuances of dance.

### SPIC MACAY

"SPICMACAY, BITS-Pilani chapter conducted the first concert of the semester on 17th September by Mahua Shankar, a classical kathak danseuse and a performing artist for over a decade. She was accompanied by artists- Pt Mithilesh Kumar Jha and Janaab Murad Ali Khan. She is an extraordinary young dancer adding subtle innovations to the Kathak repertoire while preserving the tenets of the classical style.

The concert commenced by her enlightening the audience about the history of Kathak and the range of variations submerged within this dance form. She had the eye of the audience on her for over an hour with her dramatic movements and stills.

She ended leaving the audience craving for more and hoping to come back again to perform at the campus. The student organizing committee along with the artists later had dinner at VFAST hostel before bidding her goodbye."

### MATRIX

MATRIX – the literature club of BITS Pilani has once again made an attempt to promote literature and classical cinema amongst the students and faculty in BITS Pilani. The semester commenced for MATRIX 2013 with a review of the book "*The Garden of Solitude*", by Siddhartha Gigoo on the 25<sup>th</sup> of January. The panelists provided a brilliant and vivid review of this book, which describes the political turmoil in Kashmir, migration of Pandits and their life and plight in exile. The discussion was further enriched by queries and inputs from faculty members and students who were present in the audience.

Towards the end of January, Matrix members went to Jaipur Literary Fest, which has become a kind of tradition for Matrix.

On 2<sup>nd</sup> February, an Internal Book Review was conducted by the first year students. The book was "*The Kite Runner*" by Khaled Hosseini. There was a great discussion about a set of tumultuous events, from the fall of Afghanistan's monarchy through the Soviet military intervention, the exodus of refugees to Pakistan and the United States, and the rise of the Taliban regime.

In the month of March, the whole club remained busy with preparations for APOGEE events. Like the previous years, MATRIX once again successfully conducted three events in APOGEE. The trademark *MATRIX Mythology Quiz* was prepared by Prathamesh and Srungeer Simha. There was a large turnout for the quiz, especially with a greater number of outstation participants. The quiz was well appreciated by the participants. Also, a *Comic Writing Contest* was conducted, which involved writing of hilarious and witty lines between fictitious and real life characters. The third event was *How It Should Have Ended (HISHE)*, which was an online event. Participants were made to write their own ending to a book, which they had to choose from a list of books provided by us. We received numerous excellent entries for the event.

On the 5<sup>th</sup> of April 2013, we invited the author of the book "*The Garden of Solitude*", Siddhartha Gigoo to give us a talk about his book and a short film that he had prepared. A number of faculty members and

members of student community turned up for the author talk. It was a very interactive session, with numerous questions coming up for Mr. Gigoo about his short film.

The final Book Introduction event of the year was conducted by the beloved final year students of our club on 15<sup>th</sup> April 2013. Samarth Sachdeva introduced "*How to get filthy rich in rising Asia*" by Mohsin Hamid. Avinash Upadhyaya introduced "*India After Gandhi*" by Ramachandra Guha. Viknesh introduced "*The Perks of being a Wallflower*" by Stephen Chbosky and finally, Bhargav introduced "*Outliers: The Story of Success*" by Malcolm Gladwell.

The semester ended for MATRIX with the valedictory ceremony where all the people who had done noteworthy contribution to the club were recognized. The ceremony was graced by the attendance of dignitaries which included, Prof. Arya Kumar, Prof. Geetha B., Dr. M. Ishwara Bhatt among many others. The guests discussed and provided many valuable suggestions to enhance the quality of literary activities on campus.

Apart from the above-mentioned events, MATRIX conducted frequent book exchange programs on weekends for the members of the club. In these book-exchange programs, various books and authors were discussed informally within the club. The authors who were being discussed ranged from the likes of Ayn Rand to Chetan Bhagat. MATRIX also held a couple of movie screenings and movie review sessions for the members of the club.

## NIRMAAN

**Livelihoods initiatives:** Two self-help groups have been established in Khedla and Baas wherein the organization provides life-skills training to underprivileged women and an opportunity to earn a livelihood. They produce products like kurta, agro products, etc. and sell in nearby Pilani markets.

**Education initiatives:** From adopting government school to improve educational quality and infrastructure to providing bridge-program to child-labourers and admitting them to private schools using Right to Education Act, over 100 students have been impacted. Through tele-counselling and career workshops, Nirmaan has provided career guidance to over 1000 children. Through its scholarship and mentorship program, 80 students have been supported to continue their education. It also has evening schools for the all-round development of students at BITSAA Pilani Resource Center and Baas village where one can see the change in the attitude of the children and parents towards education in 8 years.

**Community initiatives:** Volunteers use participative community development approach involving the community to discuss their issues take ownership of their problems and through awareness and motivation, help them solve the same. Organizing medical camps, engaging with people through social and cultural events, cleanliness drives etc. are all directed at this aim.

**Socio-Technological initiative:** As students of a premiere engineering institute of India, volunteers of Nirmaan in collaboration with NSS, Pilani aim to contribute to the society by finding technical solutions to grass-roots level problems. Two "solar water bulbs" are installed in a school in Baas village which uses a PET bottle filled with water fitted in the roof to provide an affordable lighting solution.

Project- "Water treatment using indigenous adsorbents" will soon be implemented in the slum of Natbasthi, nearby Pilani.

### Events:

**Voter Registration Camp:** A Voter ID Registration camp was organized on campus from 26<sup>th</sup> Jan-28<sup>th</sup> Jan, 2014 in which 342 bitsians registered.

**Joy of Giving Week:** It was celebrated from 10-14th October, 2013. A number of events were conducted as part of the weeklong celebration.

1. **Wish Tree:** The trees were decorated with the wishes of our beneficiaries. Anyone who wishes to contribute left their contact details on the wish card, and dropped it in the wish box. More than 55 wishes got fulfilled.
2. **Day of Joy:** A fun-day for the kids of two of our projects was organized, wherein they were brought to the campus and different clubs performed and organized games and activities for them, followed by movie and a music performance.
3. **Hour of Joy:** It was aimed at involving the Bitsian junta to spend an hour with our beneficiaries of Nirmaan Pilani. They could interact with them, conduct a small activity, play with them, or teach them a sport/musical instrument/photography/dance. With this we gave others a chance to feel the passion of Nirmaan through our projects.



**Oasis:** Nirmaan conducted two events, Youth-Sabha and Big-fight during Oasis 2013. While Youth Sabha was a policy making competition in which participants were supposed to make a bill or propose changes in existing one over a problem. Big fight was a quizzing event. Both the events were well received, with participation from all over India.

The oasis stall, set up by Nirmaan every year, is a means of displaying the commendable work of the women of SHG Khedla and Baas village and to provide a market for their products. A variety of products were sold including Kurtas, laptop bags, crochet handkerchief, key chains, sweaters, table cover, mufflers, home decorative materials. Products from Nirmaan are made at SHG-Baas and SHG-Khedla.

#### **National Talent Search Scheme**

The number of National Talent Search Scheme Scholarship holders studying in the Institute during the year in various programmes was as follows:

Admission year	No. of students
I Year	11
II Year	32
III Year	27
IV Year	18
V Year	03
Total	<u>91</u>

#### **Earn While You Learn**

##### **Professional Assistantship**

Fifteen students worked as Professional Assistants during this year, 5 in the Second Semester of 2012-2013 and 10 in the First Semester of 2013-2014. They participated in academic activities like development and assistance in labs, software development, educational planning etc. This gave them an opportunity of independent thinking and developing a sense of responsibility. The programme is not linked with any academic credit but the participants are paid honorarium for their services.

##### **Aditya Birla Group Scholarships**

Three students, Mr. Yimkum I Ozukum (2013A2PS008P), Ms. Soumya Sucharita (2013A7PS007P) and Mr. Chandradeo Arya (2013A7PS075P) have been awarded the prestigious Aditya Birla Scholarships for the academic year 2013-2014. These scholarships are awarded to meritorious students of Engineering from among those admitted to BITS Pilani and the IIT's at Bombay, Chennai, Delhi, Kanpur and Kharagpur after a rigorous selection process. The four continuing scholars (two from 2010 and two from 2012) were judged to have demonstrated satisfactory progress, and have received a sum of Rs. 65,000/- each as the scholarship amount for the academic year 2013-2014.

##### **GE Fund Scholarship Program – 2012 - 14**

GE Foundation, USA, which is the philanthropic organization of the General Electric Company, has sanctioned two scholarships worth \$ 4500 to a student in the fourth year of dual degree programme in BITS, Pilani in the areas of Computer Science and Mechanical Engineering. The scholarships were awarded to Ms. Ashwini Pokle, (ID No.2011A7PS186P) B.E. (Hons.) Computer Sciences and Mr. Arunabh Biyani (2011A4PS070P) B.E. (Hons.) Mechanical Engineering programme.

##### **Institute Fellowship**

With a view to increase enrolment of Ph.D. students, Institute has created Research Assistantship for full time Research Fellows. Currently 62 full time research students, who have been admitted to Ph.D. programme, are receiving Research Assistantship in Pilani campus. These full time research scholars are doing research in the areas such as Biotechnology, Pharmacy, Economics, Management, Physics, Mechanical Engineering Computer Science, Civil Engineering, Electrical and Electronics Engineering and Chemistry.

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Mechanical Engineering Computer Science, Civil Engineering, Electrical and Electronics Engineering and Chemistry.

### CSIR/UGC/ICMR Fellowship

Funding agencies such as Council of Scientific and Industrial Research (CSIR), DST, ICMR has provided 17 JRFs and 16 SRFs to the research scholars of the Pilani campus. These research fellows; both JRFs and SRFs are working for their Ph.D. degree in Pilani campus.

The University Grants Commission has provided 52 research fellowships to the research scholars of the Institute. These research fellows are working for their Ph.D. degree in the area of Biological Sciences and Pharmacy at Pilani campus.

### Fellowships under Externally Funded Projects

Apart from the above mentioned fellowship there are full time research scholars working on projects sponsored by various agencies like DST, DBT, CSIR, ICAR, NPMAS, Incozen, Inspire, BRNS, MNRE, UGC, ICMR, TCS etc. There are 43 research scholars in Pilani campus at present in such position.

### Alumni Scholarships

BITS Alumni have instituted several merit-cum-means scholarships. For the First Semester 2012-2013 and Second Semester 2012-2013 the scholarships were awarded to the following students.

Scholarship	I Semester 2012-2013	II Semester 2012-2013
Vamsi Pendyala and Prasanna Kalahasthi Memorial Scholarship	Aayush Singal ID No. 2011A3PS188P	Ayush Aggarwal ID No.2011B3A3491P
S.S. Seshadri Memorial Scholarship	S. Pramod ID No. 2010A3PS190P	Ch Sampath ID No. 2010A3PS087P
BITS Alumni Class of 1966-71 Scholarship	Nikita Mogla ID No. 2011A2PS548P	Palak Jain ID No. 2011B4A8688P
Rakesh Chandra Scholarship	–	B. Naveen ID No. 2011A4PS239P
Sharman's Family Scholarship	Vineela Meghana Ramadana ID No. 2009B2A7707P	–
Chaman Lal Scholarship	Pooja Choudhary ID No. 2009A4PS747P	Shubham Arora ID No. 2010C6PS498P
Ram Nivas Yadav Scholarship	Adarsh Mittal ID No. 2012A8PS220P	Pranjal Agarwal ID No.2012A4PS334P
	Sankhya Chakravarty ID No. 2012A7PS014P	Kapil Arora ID No. 2012A3PS155P
Shantha E. Iyer Scholarship	–	Bhanu Priya S ID No. 2011B1PS515P
	–	Priya Agarwal ID No. 2012A2PS517P
S.K. Agarwal Scholarship	Vineet Gupta ID No. 2012A4PS323P	–
	Braj Kishore ID No. 2012A4PS186P	–

## DETAILS OF ADMISSIONS MADE DURING THE YEAR 2013

### (A) Second Semester 2012-2013

#### Doctoral Programmes

Ph.D.	38(14)
<b>Total</b>	<b>38(14)</b>

### (B) First Semester 2013-2014

PROGRAMMES	No. of students joined	BITSAT Cut-off scores	
		Highest	Lowest
<b>1. Integrated First Degree Programmes</b>			
<u>Group A</u>			
B.E.(Hons.)			
Chemical	67(9)	336	309
Civil	63(7)	336	308
Computer Science	130(14)	418	354
EEE	95(14)	402	343
Electronics & Instrumentation	65(12)	351	332
Mechanical	85 (2)	388	337
Manufacturing	36(6)	331	300
B. Pharm. (Hons.)	17(0)	288	266
	<b>558(64)</b>		
<u>Group B</u>			
M.Sc.(Hons.)			
Biological Sciences	51(12)	340	284
Chemistry	49(6)	311	295
Economics	66(12)	341	308
Mathematics	56(13)	331	304
Physics	50(11)	341	303
	<b>272(54)</b>		
<u>Group C</u>			
M.Sc.(Tech.)			
Gen. Studies	16(4)		
	<b>16(4)</b>		
<b>Total :</b>	<b>846(122)</b>		

Note: (i) The above list consists of 20 students who are First rank holders from 19 different central/ state boards admitted under 'direct admission of board toppers' scheme.

(ii) The above numbers also include 35 admissions of staff children and of BET school students, made under special dispensation consisting of 3 in Bio Sciences, 2 in Chemistry, 6 in Economics, 5 in Mathematics, 3 in Physics and 16 in General Studies.

## 2. Higher Degree Programmes :

M.E.	
Biotechnology	16(9)
Chemical Engineering	13(3)
Chemical (Petroleum Engineering)	7(2)
Civil (Structural Engineering)	14(4)
Civil (Transportation Engineering)	11(4)
Civil (Infrastructure Engineering)	11(4)
Computer Science	20(3)
Communication Engineering	16(2)
Design Engineering	9
Embedded Systems	7(2)
Manufacturing Systems Engineering	9(1)
Mechanical Engineering	11
Microelectronics	12(4)
Software Systems	29(5)
MBA	9(3)
M.Pharm.	15(7)
M.Pharm. (Pharmaceutics)	6(2)
M.Pharm. (Pharmaceutical Chemistry)	50(19)
<b>Total</b>	<b>265(74)</b>

## 3. Doctoral Programmes :

Ph.D.	43(19)
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## SUMMARY

	II Semester 2012-2013	I Semester 2013-2014
<b>Programmes</b>		
Integrated First Degree Programmes	-	846(122)
Higher Degree Programmes	-	265(74)
Ph.D.	38(14)	43(19)
<b>Total</b>	<b>38(14)</b>	<b>1154(215)</b>

**STATEMENT SHOWING THE NUMBER OF CANDIDATES WHO HAVE BEEN PERMITTED IN THE ACADEMIC YEAR 2013-2014 TO PURSUE VARIOUS DUAL DEGREE PROGRAMMES UNDER VARIOUS PRIORITIES**

**FIRST PRIORITY**

(From Group 'B' to Group 'A' Programmes)

Programmes* From ↓ To →	A1	A2	A3	A4	A5	A7	A8	AB	Total
B1	7	7	6	9	-	9	8	3	49
B2	7	4	5	9	-	8	5	2	40
B3	5	3	10	8	-	11	5	3	45
B4	3	2	8	8	-	11	7	2	41
B5	8	4	10	5	-	4	5	5	41
<b>Total</b>	30	20	40	39	-	43	30	15	216

**OTHER PRIORITIES**

Programmes* From ↓ To →	AB	B1	B3	B4	Total
A3		01			01
A5	01				01
C6				01	01
C7			01		01
<b>Total</b>	01	01	01	01	04

### NUMBER OF STUDENTS REGISTERED IN FIRST SEMESTER 2013-2014

Programme	Year of Admission						Total
	2008 and earlier	2009	2010	2011	2012	2013	
<b>A. Integrated First Degree Programmes</b>							
<b>B.E.(Hons.)</b>							
Chemical	0(0)	0( 0)	53( 11)	58( 10)	51( 11)	67( 9)	229( 41)
Civil	1(0)	2( 0)	50( 6)	57( 8)	58( 7)	61( 6)	229( 27)
E.E.E.	0(0)	8( 2)	91(13)	91( 6)	90(14)	95(14)	375(49)
Mechanical	2(0)	0( 0)	82( 4)	79( 2)	79( 1)	85( 2)	327( 9)
Computer Science	0(0)	6( 1)	94( 7)	94(16)	92(16)	130(14)	416(54)
Electronics & Instrumentation	1(0)	1( 0)	55( 12)	56( 8)	60( 11)	65( 12)	238( 43)
Manufacturing Engineering	0(0)	1( 0)	29( 2)	30( 2)	29( 5)	35( 6)	124(15)
<b>B.Pharm.(Hons.)</b>	1(0)	6( 1)	30( 8)	26( 11)	26( 5)	13( 0)	102(25)
<b>M.Sc.(Hons.)</b>							
Bio. Sciences	2(0)	41(13)	46(14)	43( 12)	48(15)	51( 12)	231(66)
Chemistry	4(0)	28( 4)	42(12)	44( 10)	42( 9)	49( 6)	209(41)
Economics	0(0)	47(15)	50( 9)	53( 11)	53(10)	66( 12)	269( 57)
Mathematics	4(0)	48( 5)	50(11)	51( 9)	51(12)	56( 13)	260(50)
Physics	1(0)	44( 6)	52( 7)	49( 6)	50( 7)	50( 11)	246(37)
<b>M.Sc.(Tech.)</b>							
Information Systems	0(0)	3( 2)	59( 20)	70( 17)	60(10)	0( 0)	192(49)
Gen. Studies	4(0)	11( 4)	21( 1)	20( 11)	21(10)	16( 4)	93(30)
Finance	0(0)	1( 1)	11( 4)	16( 7)	17( 6)	0( 0)	45(18)
<b>Sub Total</b>	20(0)	247(54)	815(141)	837(146)	827(149)	839(121)	3585(611)

**Note:** The numbers in brackets indicate number of female students.

Programme	Year of Admission						Total
	2008 and earlier	2009	2010	2011	2012	2013	
<b>B. Higher Degree Programmes</b>							
<b>M.E.</b>							
Chemical	0(0)	0(0)	0( 0)	0(0)	10 (3)	13( 3)	23(6)
Civil with Specialisation in Structural Engg.	0(0)	0(0)	0( 0)	0(0)	13(1)	14( 4)	27( 5)
Computer Science	0(0)	0(0)	1(1)	0(0)	17(4)	19( 3)	37(8)
Mechanical	0(0)	0(0)	0(0)	0(0)	12( 1)	11( 0)	23(1)
Software Systems	0(0)	3(0)	0(0)	1(1)	22(4)	29( 5)	55(10)
Microelectronics	0(0)	0(0)	0(0)	0(0)	13(2)	12(4)	25(6)
Communication Engineering	0(0)	0(0)	0(0)	0(0)	15(4)	16( 2)	31(6)
Biotechnology	0(0)	0(0)	0(0)	0(0)	12 (6)	16(9)	28(15)
Embedded Systems	0(0)	0(0)	0(0)	0(0)	8(0)	7(2)	15(2)
Design Engineering	0(0)	0(0)	0(0)	0(0)	8(0)	9(0)	17(0)
Manufacturing Sys. Engg	0(0)	0(0)	0(0)	0(0)	7(1)	9(1)	16(2)
Civil with Specialisation in Transportation Engg.	0(0)	0(0)	0(0)	0(0)	8(3)	11(4)	19(7)
Civil with Specialisation in Infrastructure Systems.	2(1)	0(0)	0(0)	0(0)	8(3)	11 (4)	21(8)
Chemical with Specialisation in Petroleum Engg.	0(0)	0(0)	0(0)	0(0)	7(2)	7(2)	14(4)
<b>Master of Business Administration</b>	0(0)	0(0)	0(0)	0(0)	46(9)	50 (19)	96( 28)
<b>M.Pharm.</b>	0(0)	0(0)	0(0)	0(0)	11(6)	9 (3)	20( 9)
<b>M.Pharm.</b> (with pecializations in Pharmaceutical Chemistry)	0(0)	0(0)	0(0)	0(0)	10(5)	6 (2)	16( 7)
<b>M.Pharm.</b> (with Specializations in Pharmaceutics)	2(2)	0(0)	0(0)	0(0)	9(2)	15 (7)	26(11)
<b>Sub Total</b>	4( 3)	3( 0)	1( 1)	1( 1)	236( 56)	264( 74)	509(135)
<b>C. Ph.D.</b>	105 (24)	47(16)	44( 12)	68( 31)	62( 30)	43( 18)	369( 131)
<b>Total (On Campus)</b>	<b>129(27)</b>	<b>297(70)</b>	<b>860(154)</b>	<b>906(178)</b>	<b>1125(235)</b>	<b>1146(213)</b>	<b>4463(877)</b>

## SUMMARY

	<b>Engg.</b>	<b>Sc.</b>	<b>Hum.</b>	<b>Total</b>
First Degree	2268(335)	1048(219)	269(57)	3585(611)
Higher Degree	351( 80)	62( 27)	96(28)	509(135)
Ph.D.	-	-	-	369(131)
<b>Grand Total</b>				4463(877)

**Note:** The numbers in brackets indicate number of female students.



## STATEMENT OF DEGREES AWARDED

Degrees	No. of degrees			
	72 <sup>nd</sup> Award (20.03.2013)	73 <sup>rd</sup> Award (19.07.2013)		
<b>On-campus Programmes</b>				
<b>A. Integrated First Degrees</b>				
<b>B.E.(Hons.)</b>				
Chemical	4(0)		11( 3)	
Chemical (with PS)	2(0)		66(13)	
Civil	2(0)		6( 1)	
Civil (with PS)	0(0)		69( 4)	
Computer Science	2(0)		10( 2)	
Computer Science (with PS)	7(0)		110(20)	
EEE	0(0)		12( 1)	
EEE (with PS)	5(0)		109(11)	
Electronics & Instrumentation	0(0)		8( 1)	
Electronics & Instrumentation (with PS)	1(0)		74(13)	
Mechanical	1(0)		13( 2)	
Mechanical (with PS)	1(0)		101(12)	
Manufacturing Engg	0(0)		3( 1)	
Manufacturing Engg (with PS)	0(0)	25(0)	39( 3)	631(87)
<b>B.Pharm</b>	1(1)		2( 1)	
<b>M.Sc.(Hons)</b>				
Bio. Sciences	2(0)		25( 4)	
Bio. Sciences (with PS)	1(1)		8( 2)	
Chemistry	0(0)		24( 6)	
Chemistry (with PS)	3(0)		13( 3)	
Economics	1(0)		35( 5)	
Economics (with PS)	1(0)		13( 1)	
Mathematics	3(0)		32( 6)	
Mathematics (with PS)	2(0)		17( 5)	
Physics	2(1)		30( 5)	
Physics (with PS)	2(0)	17(2)	17( 3)	214( 40)
<b>M.Sc. (Tech)</b>				
Engg. Tech	0(0)		7( 3)	
Engg. Tech. (with PS)	0(0)		1( 0)	
Finance	0(0)		0( 0)	
Finance (with PS)	1(0)		13( 7)	
General Studies	0(0)		9( 1)	
General Studies(with PS)	6(0)		9( 3)	
Information Systems	0(0)		4( 0)	
Information Systems (with PS)	3(1)	10(1)	56(14)	99( 28)
<b>Sub Total</b>		58(8)		980(168)

**Note:** The numbers in brackets indicate number of female students.

Degrees	No. of degrees	
	72 <sup>nd</sup> Award (20.03.2013)	73 <sup>rd</sup> Award (19.07.2013)
<b>B. Higher Degrees</b>		
<b>M.E.</b>		
Civil with specialisation in Structural Engg.	4( 0)	10( 3)
Civil with specialisation in I Structural Engg. (with PS)	1( 0)	1( 0)
Civil with specialisation in Infrastructure Engg.	0(0)	2( 0)
Civil with specialisation in Infrastructure Engg. (with PS)	0(0)	2( 1)
Civil with specialisation in Transportation Engg.	0(0)	5( 1)
Civil with specialisation in Transportation Engg. (with PS)	0(0)	0( 0)
Chemical with specialisation in Petroleum Engg.	0(0)	4( 1)
Chemical	5(1)	4( 1)
Chemical (with PS)	4(2)	4( 2)
Computer Science	2(1)	5( 0)
Computer Science (with PS)	12(3)	12( 4)
Communication Engineering (with PS)	5(2)	10( 3)
Communication Engineering	3(0)	6( 1)
Embedded Systems	0(0)	3( 0)
Embedded Systems (with PS)	0(0)	7( 0)
Master of Business Administration	0(0)	2( 0)
Master of Business Administration (with PS)	1(0)	38( 9)
Master of Public Health	0(0)	2( 1)
Master of Public Health (with PS)	1(1)	4( 4)
Mechanical	7(0)	9( 0)
Mechanical (with PS)	0(0)	6( 0)
Electrical with specialization in power Electronics & Drives	0(0)	5( 1)
Electrical with specialization in power Electronics & Drives (with PS)	0(0)	4( 1)
Software Systems	2( 0)	1( 0)
Software Systems (with PS)	10( 2)	21( 4)
Microelectronics	1( 0)	3( 0)
Microelectronics (with PS)	0( 0)	10( 1)
Biotechnology	1( 1)	2( 1)
Biotechnology (with PS)	2( 2)	8( 3)
Manufacturing Systems Engg.	0( 0)	1( 0)
Manufacturing Systems Engg. (with PS)	0( 0)	5( 1)
Design Engineering	0( 0)	9( 0)
Design Engineering (with PS)	1( 0)	3( 0)
<b>M.Pharm.</b>	0( 0)	1( 0)
<b>M.Pharm. (with PS)</b>	14( 7)	5( 2)
<i>M.Pharm.(with specialization in Pharmaceutics)</i>	0(0)	0( 0)
<i>M.Pharm.(with specialization in Pharmaceutics) (with PS)</i>	0( 0)	7( 0)
<i>M.Pharm.(with specialization in Pharmaceutics Chemistry)</i>	0(0)	0( 0)
<i>M.Pharm.(with specialization in Pharmaceutics Chemistry) (with PS)</i>	0( 0)	4( 4)
<b>Sub Total</b>	<b>76( 22)</b>	<b>225( 49)</b>
<b>C. Ph.D.</b>	27( 8)	20 ( 7)
<b>Total (On Campus)</b>	<b>161(38)</b>	<b>1225(224)</b>

**Note:** The numbers in brackets indicate number of female students.

## SUMMARY

<b>Award</b>	<b>72<sup>nd</sup> Award</b>	<b>73<sup>rd</sup> Award</b>	<b>Total</b>
Integrated First Degree	58( 8)	980(168)	1038(176)
Higher Degrees	76(22)	225( 49)	301( 71)
Ph.D.	27( 8)	20( 7)	47( 15)
<b>Total</b>	161(38)	1225(224)	1386(262)

## 74<sup>th</sup> AWARD OF DEGREES TO BE APPROVED BY THE 67<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS

(No. in brackets indicates no. of female students)

Programme	Dist.	I	II	Total
<b>On-Campus</b>				
B.E.(Hons.) (Civil)	0	1	1	2(0)
B.E.(Hons.) (Civil) (with Practice School)	0	2	1	3(1)
B.E.(Hons.) (Electrical and Electronics)	1	1	2	4(0)
B.E.(Hons.) (Electrical and Electronics)(with Practice School)	0	1	2	3(2)
B.E.(Hons.) (Mechanical)	1	3	0	4(0)
B.E.(Hons.) (Mechanical) )(with Practice School)	0	0	1	1(0)
B.Pharm.(Hons.) (with Practice School)	0	2	2	4(0)
B.E.(Hons.) (Computer Science) (with Practice School)	0	1	4	5(1)
B.E. (Hons.) (Electronics and Instrumentation)	0	1	1	2(0)
M.Sc.(Hons.) (Biological Sciences)	0	1	1	2(0)
M.Sc.(Hons.) (Biological Sciences) (with Practice School)	0	0	1	1(1)
M.Sc.(Hons.) (Chemistry)	0	2	0	2(1)
M.Sc.(Hons.) (Economics)	0	0	2	2(0)
M.Sc.(Hons.) (Mathematics)	0	0	2	2(1)
M.Sc. (Hons.) (Physics) (with Practice School)	0	0	1	1(0)
M.Sc.(Tech.) (General Studies)	0	0	1	1(0)
M.Sc.(Tech.) (General Studies)(with Practice School)	0	0	7	7(3)
M.Sc.(Tech.) (Information Systems)	0	1	0	1(0)
M.Sc.(Tech.) (Information Systems) (with Practice School)	0	0	1	1(0)
M.Sc.(Tech.) (Finance) (with Practice School)	0	1	0	1(1)
B.E. (Hons.) (Manufacturing Engineering)	1	1	0	2(1)
<b>Sub Total First Degree</b>	<b>3</b>	<b>18</b>	<b>30</b>	<b>51(12)</b>
M.E.(Chemical)				1(0)
M.E.(Civil with specialization in Transportation Engineering)				1(1)
M.E.(Civil with specialization in Structural Engineering)				1(0)
M.E.(Computer Science) (with Practice School)				1(1)
M.E.(Software Systems) (with Practice School)				1(1)
Master of Business Administration(with Practice School)				1(0)
<b>Sub total higher degree</b>				<b>6(3)</b>
Ph.D.				21(6)
<b>Total for On-Campus Degrees</b>				<b>78(21)</b>

## LIST OF ORGANIZATIONS WHICH CONDUCTED CAMPUS INTERVIEWS

S.No.	Name of Organization	Number of students		Discipline
		Interviewed	Selected	
1.	Adobe	7	3	CS/IS
2.	Ahuja Consultants	4	1	Civil
3.	AKS Software Ltd	8	5	CS/IS
4.	Amadeus Software	6	2	CS/IT
5.	Amazon India Development Centre Pvt Ltd.	12	8	CS/IS
6.	Anand Automotive Ltd.	20	13	Mech
7.	Arista Networks	5	1	EEE/Enl
8.	Aspire Systems	5	3	CS/IT
9.	Axis Bank	4	2	All
10.	Bain Capability Center	14	4	All
11.	Bank Of America	37	22	All
12.	BeeHyv Software Solutions	7	3	CS/IT/EEE/Enl
13.	Belzabar Software Design India Pvt. Ltd.	2	1	CS/IT/EEE/Enl
14.	Bharti Airtel Limited	7	2	EEE/Enl
15.	Bosch Limited	17	11	Mech/EEE/Enl
16.	Boxbeat Technologies	8	6	EEE/Enl
17.	BRAHMOS AEROSPACE	5	3	Mech/EEE/Enl
18.	Cairn India Ltd	9	6	Mech/Chem
19.	CB&I - Mech	5	3	Mech/Chem
20.	CDOT	3	1	EEE/Enl
21.	CISCO Systems (India) Pvt Ltd	25	19	CS/IS/EEE/Enl
22.	Citicorp Services India Limited	21	13	CS/IS/EEE/Enl
23.	Concept2Silicon Systems Pvt. Ltd.	7	4	EEE/Enl
24.	Cosmic Circuits		1	EEE/Enl
25.	Credit Suisse	8	3	All
26.	Cvent India Pvt. Ltd	2	1	All
27.	Cypress Semiconductor India Pvt. Ltd	7	3	EEE/Enl
28.	DE Shaw	6	2	CS/IT
29.	Dell Global Analytics (Dell International Services)	20	11	All
30.	Derrick Petroleum	7	2	Mech/Chem

S.No.	Name of Organization	Number of students		Discipline
		Interviewed	Selected	
31.	DHL	4	2	All
32.	Directi	11	7	All
33.	Dr.Reddy's Laboratories	12	5	Pharm
34.	Earnst & Young	3	1	All
35.	EBay	17	7	CS/IS
36.	Eccella Consulting	2	1	All
37.	Edelweiss Financial Services Ltd	3	1	All
38.	EMC Software and services India Pvt Ltd	8	5	EEE/EnI
39.	enMarkit.com - Colabcom Technologies	2	1	All
40.	Epic Systems	16	11	CS/IS/EEE/EnI
41.	Ericsson R&D	6	3	EEE/EnI
42.	Evalueserve	17	41	All
43.	ExxonMobil Company India Private Limited	16	5	Chem
44.	Fab.com	14	4	CS/IT
45.	Facebook Inc	8	1	CS/IS
46.	Fiberlink Software Private Limited	5	2	CS/IT
47.	Finisar Malaysia Sdn Bhd	13	5	Mech/Chem/EEE/EnI
48.	Finmechanics	3	1	All
49.	Flipkart Internet Pvt Ltd	13	2	CS/IS
50.	FMC Technologies	2	1	All
51.	Futures First Info Services Pvt Ltd	21	9	All
52.	GE HealthCareTechnologies	3	1	Mech
53.	Goldman Sachs	24	10	CS/IT
54.	Google	7	2	CS/IS
55.	Groupon	9	4	CS/IT
56.	Hemair	7	3	Mech/Chem
57.	Hero MotoCorp Ltd	7	4	Mech
58.	Hewlett Packard	13	5	CS/IT/MBA
59.	Hikari Tsushin	13	7	All
60.	Hilti	7	4	All
61.	Honda Motorcycle and Scooter India Pvt Ltd	8	3	Mech
62.	Honeywell UOP	16	7	Chem
63.	Housing	2	1	All
64.	HP Analytics	8	5	MBA

S.No.	Name of Organization	Number of students		Discipline
		Interviewed	Selected	
65.	HP India Software Operations Pvt. Ltd.	6	2	CS/IS
66.	HT Media Limited	9	5	CS/IT
67.	IBM Global Business Services	56	39	CS/IS
68.	IBM Research India	8	1	CS/IS
69.	IMI Mobile	3	1	CS/IT
70.	IMS Healthcare	19	11	Chem/Mech/Pharma
71.	Indian Oil Corporation Ltd.	10	6	Mech/Chem/EEE/Enl
72.	Infosys Limited	11	7	CS/IS
73.	InMobi	6	2	CS/IS
74.	Intel Technology India Pvt. Ltd.	22	19	EEE/Enl
75.	iRunway	7	2	All
76.	IVY Comptech	7	2	CS/IS
77.	J.P Morgan Services India Pvt. Ltd.	32	17	All
78.	JBF RAK LLC	5	2	All
79.	Jindal Steel & Power Limited	6	3	Mech/Chem
80.	Juniper Networks India Private Limited	20	12	EEE/Enl
81.	Kinapse	3	1	Pharm
82.	Kony Labs	17	10	CS/IS
83.	L&T Construction	25	19	Mech/Civil
84.	LatentView Analytics	35	23	All
85.	Linde	4	2	Chem
86.	LinkedIn	6	3	CS/IT
87.	LSI India Research & Development Pvt. Ltd.	9	4	EEE/Enl
88.	Mahindra & Mahindra Ltd	7	3	Mech
89.	MapMyIndia (CE Info Systems Pvt. Ltd.)	11	7	All
90.	Maruti	3	1	Mech
91.	Michelin Tyres Pvt Ltd	8	3	Mech
92.	Microsemi India	11	5	EEE/Enl
93.	Microsoft India R&D Pvt Ltd	23	9	CS/IS
94.	MidMac Qatar	3	1	Civil
95.	Morgan Stanley Advantage Services Private Limited	11	6	All
96.	Mu Sigma Business Solutions Pvt Ltd	39	17	All
97.	MySmartPrice.com	5	2	CS/IT

S.No.	Name of Organization	Number of students		Discipline
		Interviewed	Selected	
98.	Nagarro	7	3	CS/IT
99.	National Instruments	5	4	EEE/EnI
100.	Navyug Info	3	1	CS/IT
101.	Nokia India	8	4	EEE/EnI
102.	Nvidia graphics	17	8	EEE/EnI
103.	OFSS	17	12	All
104.	Onmobile	4	2	CS/IT
105.	Opera Solutions	8	5	CS/IT
106.	OPHIO	6	2	All
107.	Oracle	101	37	All
108.	PI Industries	4	1	Chem
109.	PM & C Saudi Arabia Co. Ltd	11	7	Mech/Chem/EEE/EnI
110.	Practo - PPO	4	1	All
111.	PricewaterhouseCoopers Private Limited	4	2	All
112.	Qualcomm India Private Limited	4	2	EEE/EnI
113.	Reliance Industries Limited	20	9	Chem
114.	S&P CAPITAL IQ (Dev/DB)	7	3	All
115.	Saavan	3	1	CS/IT
116.	Samsung Heavy Engineering	3	1	Mech/Chem
117.	Samsung India Software Operations Pvt Ltd	7	3	CS/IS
118.	Samsung Research Institute India-Bangalore	9	6	CS/IS
119.	Sandisk India		4	EEE/EnI
120.	SAP Labs	7	4	All
121.	Schlumberger	7	4	All
122.	Searce	9	4	All
123.	Shell	3	2	Mech
124.	SKF MT	3	1	Chem
125.	Smartcube India Pvt Ltd	14	5	All
126.	Software Paradigms Infotech	5	3	CS/IS
127.	Success Factors	9	3	All
128.	Synopsys India Pvt Ltd	11	2	CS/IS
129.	Tata Consulting Analytics	11	6	All
130.	Tata Consultancy Services	53	72	All
131.	Tata Consulting Engineers	13	7	Chem/Mech/EEE/EnI



S.No.	Name of Organization	Number of students		Discipline
		Interviewed	Selected	
132.	Tata Housing Development Company Ltd	5	3	Civil
133.	TATA Motors	10	4	Mech
134.	Tata Steel	7	3	Mech/Chem
135.	Tata Technologies	12	5	Mech/Chem
136.	Tata Consulting Services Research and Development Division	3	1	CS/IT
137.	Tejas Networks	11	7	EEE/EnI
138.	Tensilica Technologies India Pvt Ltd	2	1	All
139.	The Elitist	4	1	All
140.	The Malt Company	3	1	Mech
141.	Thorogood	7	2	All
142.	Total Environment	9	4	Civil
143.	TresVista Financial Services	6	3	All
144.	Trident	3	1	Chem/Mech
145.	United Breweries Ltd.	8	3	Mech
146.	UTC Group Companies	6	2	Mech/Chem
147.	Value Edge	8	4	All
148.	VE Commercial Vehicles Ltd.	9	4	Mech
149.	Virtusa Consulting Services Pvt Limited	17	9	All
150.	Vodafone India Limited	9	5	All
151.	Walmart Labs	3	2	CS/IT
152.	Whizdom Educare	16	8	All
153.	Wipro Ltd	15	10	CS/IT
154.	Wipro Technologies	11	6	All
155.	Yahoo!	9	3	CS/IS
156.	Zopnow	5	2	All

### Summary

Total No. of companies:	156
Total No. of students interviewed:	1650
Total No. of appointments offered:	902

### Legend

BT: Biotechnology, CE: Civil, CHE: Chemical, CM: Communication Engineering, CS: Computer Science, DE: Design Engineering, EEE: Electrical & Electronics, ET: Engineering Technology, E&I: Electronics & Instrumentation, ECON: Economics, FIN: Finance, GS: General Studies, IS: Information System, MANUF: Manufacturing Systems Engineering, MATH: Mathematics, MECH: Mechanical, MI: Microelectronics, MMS: Master of Management Studies, PHARM: Pharmacy, SS: Software Systems, MBA.

## LIST OF PROJECTS COMPLETED UNDER CERTAIN PROJECT-ORIENTED COURSES IN THE YEAR 2013

### Second Semester 2012-2013 (January 2013 to May 2013)

S.NO.	NAME	FACULTY	PROJRCT TITLE
<b>COMPUTER PROJECTS</b>			
1.	AADEESH JAIN	PANKAJ VYAS	SIMULATING MUTUAL EXCLUSIVE ALGORITHMS IN JAVA
2.	AYYADEVARA V.P.N. KUMAR	AMOL M R MARATHE	DYNAMIC OF MULTI-DOF QUARTER CAR MODEL WITH MR DAMPER
3.	YASHOWARDHAN KAUSHIK	SUSHILA SHEKHAWAT	DYNAMICS OF WEB-DEVELOPMENT (WEBSITE ON BUSINESS COMMUNICATION)
4.	SHIVAM CHATURVEDI	SHRINIWAS ARKATKAR	STUDY OF DIFFERENT DRIVING BEHAVIOR PARAMETERS FOR INDIAN ROADS USING VISSIM.
5.	VANGA SRI VIVEK	ASHISH MISHRA	EFFECT OF PIPELINING ON RISC ARCHITECTURE
6.	MOTOORI MADHURI	KIRAN DC	SCHEDULING AND REGISTER ALLOCATION FOR MULTICORE PROCESSORS.
7.	NIHARIKA GUPTA	TUFAN CHANDRA BERA	ESTIMATION OF SURFACE ROUGHNESS IN TURNING PROCESS
8.	NEETI POKHARNA	HARI OM BANSAL	MODELING AND TUNING OF CONTROLLER FOR CARDIOVASCULAR SYSTEM
9.	PRANJAL JAIN	TUFAN CHANDRA BERA	AN INVESTIGATION INTO THE PROCESS-PLANNING FOR TURN-MILLING CENTERS.
10.	SHREYA JAIN	NIRMAL KUMAR GUPTA	DIGITAL STEGANOGRAPHY
11.	DEEPSHIKHA PUROHIT	NITIN CHATURVEDI	DEVELOPMENT OF INTERACTIVE TUTORIALS FOR ELECTRONIC BENCH INSTRUMENTS AND COMPONENTS.
12.	RAHUL CHANDNANI	TUFAN CHANDRA BERA	AN INVESTIGATION INTO THE PROCESS-PLANNING FOR TURN-MILLING CENTERS.
13.	PEEYUSH KUMAR	TUFAN CHANDRA BERA	ESTIMATION OF SURFACE ROUGHNESS IN TURNING PROCESS.
14.	ANMOL AGRAWAL	GEETILAXMI MOHAPATRA	IMPACT OF FOREIGN AID ON ECONOMIC GROWTH OF DEVELOPING ECONOMIES
15.	ANAMIKA PANDEY	NIRMAL KUMAR GUPTA	CONTENT BASED SEARCH ON NETWORK BY EXTRACTING TEXT FROM IMAGE FILES
16.	PRIYANSHU AGARWAL	NIRMAL KUMAR GUPTA	CONTENT BASED SEARCH BY EXTRACTING TEXT FROM IMAGE FILE
17.	VAIBHAV BIYANI	AMOL HOLKUNDKAR	STUDY OF CHARGED PARTICLES DYNAMICS IN TRAVELLING AND STANDING ELECTROMAGNETIC WAVES
18.	HEMANT KUMAR SINGH	NAVIN SINGH	UNZIPPING AND UNFOLDING OF BIOPOLYMERS LIKE DNA, RNA AND PROTEINS
19.	ADAMYA PRAKHAR GOYAL	AMOL HOLKUNDKAR	STUDY OF CHARGED PARTICLE DYNAMICS IN PROPAGATING AND STANDING EM WAVES
20.	BHISHAM VASHISTHA	AMOL HOLKUNDKAR	PROPAGATION OF EM WAVES THROUGH VACUUM AND ITS INTERACTION WITH MATTER
21.	SOUMYAKANTI DAS	AMOL HOLKUNDKAR	PROPAGATION OF EM WAVES THROUGH VACUUM AND ITS INTERACTION WITH MATTER
22.	MANDORA ABHISHEK SATISH	NAVIN SINGH	STUDY OF UNZIPPING AND UNFOLDING OF BIOPOLYMERS LIKE DNA, RNA AND PROTEINS BY MONTE CARLO TECHNIQUES
23.	DEBANSHU SINHA	K HARI BABU	IMPLEMENTING P2P CHAT CLIENT

S.NO.	NAME	FACULTY	PROJRCT TITLE
24.	SUMIT SRIVASTAVA	K HARI BABU	IMPLEMENTATION OF P2P STREAMING PROTOCOL FOR MOBILE DEVICES
25.	VATSAL RASTOGI	MURALI P	MULTI-CHANNEL MULTI-CASTING MULTI-RADIO ROUTING ALGORITHMS FOR MOBILE AD-HOC NETWORKS
26.	ARNAV JAIN	K HARI BABU	IMPLEMENTATION OF P2P STREAMING PROTOCOL FOR MOBILE DEVICES
27.	ANJALI SINGH	NAVNEET GOYAL	PARALLELIZING DATA MINING ALGORITHM
28.	ANIL KUMAR ZEDIA	DEVIKA	DYNAMICS OF THE WEB DEVELOPMENT (COURSE WEBSITE WITH USE ASP.NET, HTML, C#, SQL, JAVA SCRIPT, FLASH).
29.	PRASHAM MISHRA	AJAY KUMAR PANI	STUDY OF PRINCIPLE COMPONENT ANALYSIS AND PRINCIPLE COMPONENT REGRESSION.
30.	ARUSHI PRAKASH	HK MOHANTA	PROCESS DESIGN & CONTROL OF AN ACID ABSORPTION CRYSTALLIZER UNIT.
31.	SHELLEY SINGH	SURESH GUPTA	MODELLING AND SIMULATION OF BIOFILTRATION
32.	INA GUPTA	N MEHALA	CLUSTER INTENTION IDENTIFICATION
33.	SANDEEP KUMAR SHARMA	REMICA AGGARWAL	WEB DESIGNING, DATABASE MANAGEMENT AND VIRTUAL PRESENTATION OF ANALYSED DATA FOR BITS PILANI
34.	PRATISH KUMAR GUPTA	AJAY KUMAR PANI	STUDY AND APPLICATION OF PARTIAL LEAST SQUARE REGRESSION TECHNIQUE
35.	ROHIT KUMAR	HK MOHANTA	DESIGN OF REACTIVE DISTILLATION COLUMN USING ASPEN
36.	M.V.S.KIREETI	PRATIK N SHETH	MODELLING AND SIMULATION OF DISTILLATION COLUMN USING FLUENT
37.	VANSHAJ NEHRA	SURESH GUPTA	MODELLING AND SIMULATION OF SIMULATED MOVING BED SYSTEM
38.	DIVYA KADIYAN	PRATIK N SHETH	MODELING AND SIMULATION OF BATCH PYROLYSER UNIT
39.	SEHAJDEEP SINGH	SURESH GUPTA	NUMERICAL SOLUTIONS OF HEAT AND MASS TRANSFER EFFECTS OF AN UNSTEADY MHD FREE CONVECTIVE FLOW PAST AN INFINITE VERTICAL PLATE WITH CONSTANT SUCTION AND HEAT SOURCE OR SINK
40.	SURABHI PAHARIA	SURESH GUPTA	MODELLING AND SIMULATION OF BIOFILTRATION
41.	MOHAMMED ABDUL QADIR	PRATIK N SHETH	MODELLING AND SIMULATION OF DOWNDRAFT BIOMASS GASIFIER
42.	TIPPIREDDY RAVI TEJA REDDY	SANGHAMITRA KUNDU	OPTIMIZATION OF PUMP SCHEDULES IN A UNIVERSITY CAMPUS
43.	PRABHAT GUPTA	DIPENDU BHUNIA	INVESTIGATION INTO THE BEHAVIOR OF COUPLING BEAM
44.	SAMARTH GUPTA	DIPENDU BHUNIA	INVESTIGATION INTO THE BEHAVIOR OF COUPLING BEAM (PART OF THE RESEARCH INITIATION GRANT)
45.	PUNIT SHARMA	SUSHILA SHEKHAWAT	DYNAMICS OF WEB-DEVELOPMENT(A WEBSITE ON BUSINESS COMMUNICATION).
46.	ISHITA AGGARWAL	PANKAJ VYAS	AUTOMATED SFMEA OF UML DYNAMIC MODELS
47.	SONAM JETWANI	OMVIR CHAUDHRY	NPV AND IRR ANALYSIS OF INFRASTRUCTURE PROJECTS: APPLICATION TO SARDAR SAROVAR PROJECT
48.	TAMANNA	G MUTHUKUMAR	LATERAL LOAD ANALYSIS OF MULTISTOREY BUILDINGS
49.	MAMIDI VENKATA NAGA JAGGARAO	KULDIP SINGH SANGWAN	DEVELOPMENT OF LIFE CYCLE ASSESSMENT FUNDAMENTAL FOR A PRODUCT
50.	ANURAG GUPTA	SMITA RAGHUVANSHI	LIFE CYCLE ASSESSMENT AND MODELLING OF PROCESSES AND MATERIALS BY CRADLE TO GRAVE APPROACH

S.NO.	NAME	FACULTY	PROJRCT TITLE
51.	AKSHIT AHUJA	MAHESWAR DWIVEDI	DESIGN AND ANALYSIS OF MACHINE ELEMENTS(LIKE CRANK SHAFTS AND ROLLING BEARINGS)
52.	PRATEEK TAORI	MAHESWAR DWIVEDI	DESIGN & ANALYSIS OF MACHINE ELEMENTS LIKE CRANK SHAFT & ROLLING BEARING
53.	RATHI ROSHAN RADHESHYAM	KULDIP SINGH SANGWAN	DESIGN OF THE LAYOUT FOR CELLULAR MANUFACTURING.
54.	VINEELA MEGHANA RAMADANA	POONAM GOYAL	MULTIMEDIA INFORMATION RETREIVAL
55.	KOTHARI YASH CHANDRESH	SUREKHA BHANOT	DESIGNING CONVENTIONAL AND FUZZY LOGIC BASED TEMPERATURE CONTROL SYSTEM USING LABVIEW
56.	PULKIT KHEMKA	HARI OM BANSAL	MODELING AND CONTROLLER DESIGN FOR THE MAXIMUM POWER POINT TRACKING IN PHOTO-VOLTAIC SYSTEM
57.	ROHIT PAMNANI	G MUTHUKUMAR	LATERAL LOAD ANALYSIS OF MULTISTOREY BUILDINGS
58.	MAHARSHI VYAS	J L RAHEJA	PARALYTIC PATIENT ASSISTANCE SYSTEM USING BRAIN COMPUTER INTERACTION
59.	TANU GUPTA	VIRENDRA SINGH NIRBAN	DATA INTEGRATION USING XML AND JAVA
60.	ANIRBAN MUKHERJEE	POONAM GOYAL	EVALUATION OF AUTOMATICALLY GENERATED CONCEPT HIERARCHY
61.	UTSAV KUMAR	PAWAN SHARMA	SIMULATION OF DIGITAL CIRCUIT DESIGN USING PROTEUS SOFTWARE
62.	KAUSHIK GUDAPATI	N MEHALA	MAPPING TARGET TO SOURCE DIRECTORY DYNAMICALLY
63.	VISHAL MEHTA	PUSHP LATA	DEVELOPING ENGLISH LANGUAGE SKILLS THROUGH SMARTER DISTRIBUTED SOCIAL NETWORKING.
64.	NITIN KHANDELWAL	HARI OM BANSAL	DESIGN OF INTELLIGENT CONTROLLER FOR SOLAR THERMAL SYSTEM
65.	PRANJAL PRABHASH	PUSHP LATA	DEVELOPING ENGLISH LANGUAGE SKILLS THROUGH SMARTER DISTRIBUTED SOCIAL NETWORKING
66.	AMAN AGARWAL	A. S. MANDAL	MATHEMATICAL MODEL DEVELOPMENT FOR FACIAL EXPRESSION RECOGNITION
67.	ABHINAV DUGGAL	A. S. MANDAL	MATHEMATICAL MODEL DEVELOPMENT FOR FACIAL EXPRESSION RECOGNITION.
68.	GAURAV AGARWAL	UTKARSH MAHESHWARI	OPTIMISATION AND STIMULATION OF ABSORPTION TOWER FOR HYDROCARBON GAS USING ASPEN PLUS
69.	SAHILA AGARWAL	VIRENDRA SINGH NIRBAN	DATA INTEGRATION USING XML AND JAVA
70.	B. ABHINAV RAMANA	SHAILENDRA S SHEKHAWAT	ANDROID MOBILE APPLICATION DEVELOPMENT
71.	TARUN SHARMA	VIKAS SINGH	DEVELOPING A ROUTING ALGORITHM FOR SECURED WIRELESS ROUTING
72.	JANAMANCHI RAJESH	K.SOLOMON RAJU	IMPLEMENTATION OF FIR FILTER (2,4,8,...,1024) ON FPGA
73.	ANIRUDHA S BHAT	ANU GUPTA	EXPLORATION OF VLSI CIRCUITS WITH EMERGING DEVICES/TECHNOLOGIES
74.	RAYUDU VENKATA SURESH	ANU GUPTA	EXPLORATION OF EMERGING TECHNOLOGY/DEVICES FOR EFFICIENT INTEGRATED CIRCUIT DESIGN
75.	GARLAPATI JEEVAN	A. S. MANDAL	DESIGN OF DCT FOR IMAGE COMPRESSION TECHNIQUES.
76.	MUKKA TEJA	K.SOLOMON RAJU	IMPLEMENTATION OF FIR FILTERS (2,4,8,...1024) ON

S.NO.	NAME	FACULTY	PROJRCT TITLE
			FPGA.
77.	SRINIVASAN R	MUKESH KR ROHIL	PARALLELISATION OF VIDEO ENHANCEMENT USING CUDA
78.	AMIT SHARMA	AVINASH GAUTAM	STUDY AND IMPLEMENTATION OF VORONOI DIAGRAM FOR TERRAIN COVERAGE
79.	GAURAV JOSHI	MUKESH KR ROHIL	PARALLELIZATION OF VIDEO ENHANCEMENT USING CUDA
80.	JAMI NAVYA	A. S. MANDAL	GENERATION OF STEINER MINIMAL TREE IN 2D USING SELF ORGANIZING NETWORKS
81.	N V SHARAT CHANDRA	AVINASH GAUTAM	STUDY AND IMPLEMENTATION OF COMPUTATIONAL GEOMETRICAL ALGORITHMS FOR TERRAIN COVERAGE.
82.	AKASH SAXENA	A. S. MANDAL	SPEECH UNDERSTANDING FOR MEDICAL DIAGNOSIS
83.	DHRUV KUMAR	POONAM GOYAL	IDENTIFYING DATA AND PROCESS PARALLELISM IN COMMON DATA MINING ALGORITHMS
84.	NAGAMALLA SHASHANK	N MEHALA	MAPPING TARGET TO SOURCE DIRECTORY DYNAMICALLY.
85.	DIVYANSH BHATIA	N MEHALA	FRAMEWORK DEVELOPMENT
86.	BHAGWAT SHUBHANKAR SUDHIR	MAHESWAR DWIVEDI	FEA ANALYSIS OF BRAKES
87.	VAIBHAV SINHA	RAVI SAINI	DEVELOPMENT OF C CODE FOR FACIAL EXPRESSION RECOGNITION
88.	ANNU SHARMA	A. S. MANDAL	SPEECH UNDERSTANDING FOR MEDICAL DIAGNOSIS.
89.	SAJIT MITTAL	K HARI BABU	DESIGNING A SIMULATOR FOR P2P STREAMING PROTOCOLS.
90.	SHANTANU SHARMA	AVINASH GAUTAM	STUDY AND IMPLEMENTATION OF CLOCK SYNCHRONIZATION ALGOS IN DISTRIBUTED SYSTEMS.
91.	ANOOP KUMAR JOSHI	REMICA AGGARWAL	WEB DESIGNING, DATABASE MANAGEMENT AND VIRTUAL PRESENTATION OF ANALYZED DATA FOR BITS PILANI
92.	KOMANDLA BHARATH REDDY	ARUN KUMAR JALAN	FINITE ELEMENTAL MODEL OF A PLATE
93.	PRASHANT CHOUDHARY	SHAILENDRA S SHEKHAWAT	ANDROID MOBILE APPLICATION DEVELOPMENT
94.	PARMAR MEHUL JAYANTILAL	YASHVARDHAN SHARMA	CREATING CITY MAPS USING ANDROID
95.	TEJAS NAGDULIKAR	J L RAHEJA	MOBILE HEALTH-CARE SOLUTION ON ANDROID DEVICES
96.	GANGISETTY MANOJ SAI BHARATH	ARSHAD JAVED	MODELLING AND SIMULATION OF DYNAMIC SOLUTION USING ANSYS
97.	G BHARGAV	K HARI BABU	IMPLEMENTING SECURITY SCHEMES FOR SERVICES LIKE AUTHENTICATION, ACCESS CONTROL FOR DECENTRALIZED P2P SYSTEMS
98.	VRITI JAIN	J L RAHEJA	MOBLIE HEALTH-CARE SOLUTION ON ANDROID DEVICES
99.	SUSHANT MATTOO	J L RAHEJA	REAL-TIME VIDEO PROCESSING ON ANDROID DEVICE FOR GESTURE RECOGNITION
100.	S SIDDHARTH RAGHU RAMAN	PRATIK N SHETH	MODELING AND SIMULATION OF BIOMASS GASIFIER USING FLUENT.
101.	MANINDER SINGH CHHABRA	SP VIMAL	TEMPORAL CONTEXT IMPLEMENTATION FOR SEMANTIC SCENE CLASSIFICATION INVOLVING CLUSTERING METHODS FOR USING TIMESTAMP
102.	NIKHIL SEHGAL	SHRINIWAS ARKATKAR	STUDY OF DIFFERENT DRIVING BEHAVIORS

S.NO.	NAME	FACULTY	PROJRCT TITLE
103.	VIKESH KUMAR VERMA	R PUROHIT	PARAMETERS FOR INDIAN ROADS USING VISSIM WEBSITE(HTML,ASP.NET)DEVELOPMENT
104.	RONAK MUNDRA	SUNEEL KUMAR	ENHANCEMENT OF A RULE BASE SYSTEM USING JESS
105.	SIDDHARTH KATIYAR	BASEER AHMED	SIMULATION OF AN AIR SEPARATION UNIT USING ASPEN
106.	BABITA RATHORE	R PUROHIT	WEBSITE(HTML,ASP.NET) DEVELOPMENT
107.	DEVASHISH SHARMA	DIPALLOY DATTA	MODELING AND SIMULATION OF LIQUID-LIQUID EQUILIBRIUM PROCESS
108.	ABHISHEK KUMAR	DIPALLOY DATTA	MODELING AND SIMULATION OF LIQUID-LIQUID EQUILIBRIUM PROCESS
109.	ANKITA DUGGAL	R PUROHIT	TUTORIAL DEVELOPMENT FOR BENCH INSTRUMENTS
110.	SANKET PUROHIT	BASEER AHMED	SIMULATION OF SULFURIC ACID PLANT USING ASPEN PLUS
111.	ABHISHEK GOEL	SUNEEL KUMAR	IMPLEMENTING AI TECHNIQUES IN WEB APPLICATIONS
112.	SHASHI SHEKHAR MAHAJAN	DIPALLOY DATTA	OPTIMIZATION AND SIMULATION OF CHLORINATION PROCESS
<b>LAB ORIENTED PROJECTS</b>			
1.	CHARU CHOWDHARY	SUBHAJIT MAJUMDAR	BIOFILTRATION FOR THE REMOVAL OF TOXIC METAL IONS: EXPERIMENTAL STUDIES
2.	S SIDDHARTH RAGHU RAMAN	SMITA RAGHUVANSHI	EXPERIMENTAL STUDIES ON CARBON DIOXIDE MITIGATION USING BIO BASED TECHNIQUES.
3.	AVINASH UPADHYAYA	SURESH GUPTA	BIOLOGICAL TECHNIQUES FOR MITIGATION OF CARBON DIOXIDE
4.	GANGISHETTY CHANDRASHEKAR	SHAMSHER B SINGH	RESPONSE OF FRP REINFORCED MASONRY STRUCTURES (CONCRETE)
5.	KEERTY SRIRAM	SHAMSHER B SINGH	RESPONSE OF FRP REINFORCED MASONRY STRUCTURES (CONCRETE)
6.	GAGANDEEP SINGH	SHRINIWAS ARKATKAR	STUDYING THE FEASIBILITY AND THE SCOPE OF REUSING CONSTRUCTION MATERIALS FOR MAKING PAVEMENTS
7.	ANUBHAV SURI	SHRINIWAS ARKATKAR	STUDYING THE FEASIBILITY AND THE SCOPE OF REUSING CONSTRUCTION MATERIALS FOR MAKING PAVEMENTS
8.	YAJNASENI SAHA	RP KHARE	DEVELOPMENT OF DISCRETE FIBER OPTIC PROXIMITY SENSORS
9.	NIDHI JAYAPALAN	SC BOSE	HARDWARE IMPLEMENTATION OF ENERGY HARVESTING CIRCUITS
10.	RAGHAV KATOCH	VINITA TIWARI	MODELLING AND SIMULATION OF VARIOUS NONLINEAR EFFECTS FOR THE HIGH SPEED OPTICAL TRANSMISSION
11.	PATEL MITASVIL DEVENDRAKUMAR	VINITA TIWARI	MODELLING OF DUO-BINARY MODULATION SCHEME FOR HIGH SPEED OPTICAL COMMUNICATION IN THE PRESENCE OF NON LINEARITY
12.	VICKY JHA	G RAJAHARI	ENERGY HARVESTING CIRCUITS
13.	KOTEKAL PRAVEEN KUMAR	K.SOLOMON RAJU	DESIGN AND DEVELOPMENT OF IP MODULE USING VERILOG/VHDL.
14.	VISHAL JOHRI	MANIKANDAN H	STUDY OF NON-LINEARITY IN OPTICAL WDA NETWORKS
15.	MRINAL SOOD	A ANAND KUMAR	FUZZY BASED SVPWM INVERTER FOR 3-PHASE INDUCTION MOTOR V/F SPEED CONTROL
16.	ALOK KUMAR MITTAL	ASHISH MISHRA	DESIGN A DISPLAY SYSTEM WITH PC GUI

S.NO.	NAME	FACULTY	PROJRCT TITLE
17.	S BHANU PRAKASH REDDY	ARSHAD JAVED	DESIGN AND DEVELOPMENT OF ORNITHOPTER WITH MECHANICAL FLAPPING WINGS
18.	RAVI GUPTA	SUSHILA SHEKHAWAT	CELEBRATION OF LIFE IN RAJASTHAN, A PHOTOGRAPHIC ILLUSTRATION OF ITS CULTURE, FESTIVALS, PEOPLE AND THEIR CHALLENGES.
19.	AYUSH ARPIT GARG	AJAY AGARWAL	STUDY OF METAL OXIDE AND POLYMER BASED GAS SENSORS
20.	SHAIK HIMAMSA	MURALI M PANDEY	DEVELOPMENT AND VALIDATION OF ANALYTICAL AND BIO-ANALYTICAL METHODS FOR FELODIPINE
21.	INGUVA SUSHMITHA	SRIKANT Y CHARDE (HYD)	DEVELOPMENT AND VALIDATION OF ANALYTICAL AND BIOANALYTICAL METHOD OF SELECTED DRUGS
22.	T.ARPITHA RAO	SUNIL KUMAR DUBEY	ANALYTICAL & BIOANALYTICAL METHOD DEVELOPMENT AND VALIDATION OF THE CANDIDATE DRUG
23.	VARSHA REDDY ETIKYALA	JAIPAL A	DESIGN AND EVALUATION OF MUCOADHESIVE BUCCAL DRUG DELIVERY SYSTEM OF SUITABLE DRUG CANDIDATE
24.	HAFSA WANI	JP MISRA	ANDROID: OPERATING SYSTEM AND APPLICATION DEVELOPMENT
25.	BIREDDY NARASIMHA REDDY	SANJAY SINGH	MOTION SENSING THROUGH CAMERA TO MANIPULATE ROBOTIC ARM
26.	SURABHI SARIN	RP KHARE	DEVELOPMENT OF FIBER OPTIC SENSOR FOR MEASUREMENT OF STRAIN
27.	ISHA GARG	ANU GUPTA	DESIGN AND IMPLEMENTATION OF ANALOG VLSI CIRCUITS.
28.	UTSUK SHARMA	VINITA TIWARI	MODELLING AND SIMULATION OF VARIOUS NONLINEAR EFFECTS FOR THE HIGH SPEED OPTICAL TRANSMISSION
29.	ANJALI BALAGOPAL	SRINIVAS REDDY K	DESIGN OF UART AND FPGA PROTOTYPING OF THE DESIGN.
30.	S RAGHAV	SANGEETA SHARMA	VISUAL ADVERTISING
31.	BHAVESH KATARIA	SNEH LATA MUROTIYA	IMPLEMENTATION OF DIGITAL VLSI CIRCUITS
32.	MAYEKAR PRANAV VIKRAM	SANGHAMITRA KUNDU	EXPERIMENTAL INVESTIGATIONS OF LEACHING CHARACTERISTICS OF SURAJGARH FLY ASH : COLUMN STUDIES
33.	ADITYA KAUSHIK	SHAMSHER B SINGH	STRENGTHING BY NSM FIBRE REINFORCED POLYMER OF OLD MASONRY CONCRETE STRUCTURES.
34.	SAURABH SINGH DEV	KAMLESH KUMAR	SLIDING SHEAR TEST OF NON WOVEN GEOTEXTILE REINFORCED PILANI SOIL
35.	NIKHIL MITTAL	AKBAR	APPLICATION TO OPTIMAL CONTROL THEORY TO BIOLOGICAL SYSTEMS
36.	SUMIT BAJAJ	SRINIVAS REDDY K	IMPLEMENTATION OF FINITE IMPULSE RESPONSE FILTERS USING RESIDUE NUMBER SCHEME (RNS).
37.	LAKSHMI GANGAVATHI KARRI	RAJEEV TALIYAN	PROTECTIVE EFFECT OF EGB-761 AGAINST BRAIN TRAUMATIC INJURY IN RATS
38.	TOSHNIWAL MADHUR	SANGHAMITRA KUNDU	COLUMN INVESTIGATIONS TO STUDY LEACHING BEHAVIOR OF FLY ASH
39.	SIDDHANT JAIN	DIPENDU BHUNIA	INVESTIGATION OF THE EFFECT OF CARBONATION ON THE PROPERTIES(PHYSICAL AND MECHANICAL) OF CONCRETE
40.	SOURABH BHATI	DIPENDU BHUNIA	INVESTIGATION OF THE EFFECT OF CARBONATION ON THE PROPERTIES OF CONCRETE
41.	ASHWIN MENON	SANJAY SINGH	CONVERSION OF SCANNED DOCUMENTS TO TEXT
42.	ROHIT PAMNANI	KAMLESH KUMAR	SLIDING SHEAR TEST OF NON WOVEN GEOTEXTILE REINFORCED PILANI SOIL

S.NO.	NAME	FACULTY	PROJRCT TITLE
43.	BANNORE KUNAL GIRISH	AKBAR	AUTONOMOUS UNDERWATER VEHICLE-MODELLING, CONTROLLING AND COMMUNICATION
44.	SAUMYA VIJ	ANU GUPTA	DESIGN & SIMULATION OF EFFICIENT OPERATIONAL AMPLIFIERS FOR VLSI APPLICATIONS
45.	MAKHIJANI BHARATI LALCHAND	PRAMOD KUMAR	IMPLEMENTATION OF OFDM ON FPGA USING WIRELESS PROTOCOLS.
46.	PRAKASH YADAV	SANJAY SINGH	CONVERSION OF SCANNED DOCUMENTS TO TEXT
47.	KAUSHIK GUDAPATI	SANJAY SINGH	MOTION SENSING THROUGH CAMERA TO MANIPULATE ROBOTIC ARM.
48.	SAURABH BULCHANDANI	SHAMSHER B SINGH	STRENGTHENING BY NSM FIBER REINFORCED POLYMER OF OLD MASONRY CONCRETE STRUCTURES.
49.	GOGRI SAUMIL PANKAJ	ABHIJIT R ASATI	DESIGN AND IMPLEMENTATION OF DIFFERENT DIGITAL CIRCUITS USING NIOS-II DEVELOPMENT BOARD.
50.	SONAL GARG	RAJEEV TALIYAN	TO STUDY THE CARDIO-PROTECTIVE EFFECT OF REMOTE ISCHEMIC PRECONDITIONING.
51.	B SHRAVAN ACHAR	SRINIVAS REDDY K	DESIGN AND IMPLEMENTATION OF DSP MULTI-RATE SYSTEMS ON FPGA KIT.
52.	AYUSHMAN KHETERPAL	DIPENDU BHUNIA	INVESTIGATION OF THE EFFECT OF CARBONATION ON THE PROPERTIES (PHYSICAL AND MECHANICAL) OF CONCRETE.
53.	MUNJE ISHAN DEEPAK	JAI GOPAL PANDEY	UNDERSTANDING FPGA ARCHITECTURE AND IMPLEMENTING IMAGE PROCESSING ALGORITHMS ON FPGA.
54.	ANUJ DUBEY	PRAMOD KUMAR	IMPLEMENTATION OF MEAN SHIFT ALGORITHM FOR OBJECT MOTION TRACKING ON FPGA
55.	RESHAM GANDHI	PRAMOD KUMAR	IMPLEMENTATION OF OFDM ON FPGA USING WIRELESS PROTOCOLS.
56.	P ANAND	JAI GOPAL PANDEY	UNDERSTANDING FPGA ARCHITECTURE AND IMPLEMENTING IMAGE PROCESSING ALGORITHMS ON FPGA.
57.	S BHARGAV	SRINIVAS REDDY K	IMPLEMENTATION OF MULTIRATE DSP SYSTEMS IN FPGA KIT
58.	SHRIHARSH S RAHATGAONKAR	AKBAR	AUTONOMOUS UNDERWATER VEHICLE - MODELLING CONTROLLING AND COMMUNICATION.
59.	NAGAMALLA SHASHANK	SANJAY SINGH	MOTION SENSING BY CAMERA TO MANIPULATE ROBOTIC ARM
60.	SHARMILA SINHA	ANUPAM SINGHAL	STUDY OF NEW SEWAGE TREATMENT PLANT AND WASTE WATER RECYCLING SYSTEM FOR BITS CAMPUS.
61.	NITTALA MADHU KUMAR	PRATIK N SHETH	EXPERIMENTAL INVESTIGATION OF PRETREATMENT OF BIOMASS FOR CONVERSION TO BIOFUEL.
62.	RISHU GUPTA	UTKARSH MAHESHWARI	STUDY OF PROPERTIES OF VARIOUS FUELS BY PERFORMING LABORATORY EXPERIMENTS.
63.	NIKITA SENGAR	SURESH GUPTA	BIO REMEDIATION OF HEAVY METAL IONS.
64.	BHAWARTH	SMITA RAGHUVANSHI	REMOVAL OF CHLORINATED VOCS FROM WASTE STREAMS USING BIOFILTRATION.
65.	MAYANK JAIN	UTKARSH MAHESHWARI	STUDY OF PROPERTIES OF VARIOUS FUELS BY PERFORMING LABORATORY EXPERIMENTS.
66.	VIKAS KUMAR	UTKARSH MAHESHWARI	STUDY OF PROPERTIES OF VARIOUS FUELS BY PERFORMING LABORATORY EXPERIMENTS.
67.	MOHINISH KANT JOSHI	SHAMSHER B SINGH	RESPONSE OF FRP REINFORCED SUSTAINABLE STRUCTURES



S.NO.	NAME	FACULTY	PROJRCT TITLE
68.	HARSH NAMBIAR	VANDANA AGARWAL	STUDY OF NATURE-INSPIRED ALGORITHMS
69.	KARAN KABIR SINGH	SANGHAMITRA KUNDU	LABORATORY COLUMN EXPERIMENTS TO INVESTIGATE THE LEECHING CHARACTERISTICS OF KHETRI COPPER MINE TAILINGS
70.	SIDDHARTH SINGH SETHI	SANGHAMITRA KUNDU	LABORATORY COLUMN EXPERIMENTS TO INVESTIGATE THE LEECHING CHARACTERISTICS OF KHETRI COPPER MINE TAILINGS
71.	ADITYA GUPTA	SHAMSHER B SINGH	INVESTIGATION OF RECYCLED AGGREGATES FOR HIGH PERFORMANCE STRUCTURES
72.	AMAN AGGARWAL	SHAMSHER B SINGH	RESPONSE OF FRP REINFORCED SUSTAINABLE STRUCTURES
73.	ISHAN SHRIVASTAVA	SHAMSHER B SINGH	INVESTIGATION OF RECYCLED AGGREGATES FOR HIGH PERFORMANCE STRUCTURES
74.	ANSHUL	SHAMSHER B SINGH	RESPONSE OF FRP REINFORCED SUSTAINABLE STRUCTURES
75.	JOSHI ROHAN LAXMIKANT	SHAMSHER B SINGH	INVESTIGATION OF RECYCLED AGGREGATES FOR HIGH PERFORMANCE STRUCTURES
76.	VISHAL SINGH CHUNDAWAT	SANGHAMITRA KUNDU	BATCH LEACHING STUDY OF COPPER MINE TAILINGS
77.	PARVEEN KUMAR	SNEH LATA MUROTIYA	DESIGNING OF VERY LARGE SCALE INTEGRATED CIRCUITS
78.	ABHISHEK MANGAL	SNEH LATA MUROTIYA	DESIGNING OF DIGITAL VLSI CIRCUITS
79.	AAKASH MODI	S GURUNARAYANAN	DESIGN OF HIGH SPEED ARITHMETIC CIRCUITS
80.	NIDHI GANDHI	NITIN CHATURVEDI	STUDY AND IMPLEMENTATION OF 6T/9T SRAM CELL AND PERIPHERAL CIRCUITRY
81.	DIVYA JOSHI	VINOD KUMAR CHAUBEY	STUDY, ANALYSIS AND DEVELOPMENT OF ANTI JAMMING TECHNIQUES FOR GPS SYSTEMS TO INCREASE THEIR PERFORMANCE
82.	M.VENKAT SAI SHANKAR	ABHIJIT R ASATI	FPGA BASED IMPLEMENTATION OF DIGITAL CIRCUITS USING NIOS-II DEVELOPMENT BOARD
83.	S ABHINAV	RAJ KUMAR GUPTA	ELECTRICAL PROPERTIES OF NANOMATERIALS
84.	AGRIM GUPTA	S GURUNARAYANAN	DESIGN OF HIGH SPEED ARITHMETIC CIRCUITS
85.	MAHIMA RATHORE	ABHIJIT R ASATI	MODELLING OF ARITHMETIC CIRCUITS USING HDL AND ITS IMPLEMENTATION
86.	S.PRAMOD	ANU GUPTA	ANALYSIS AND DESIGN OF VLSI INTEGRATED CIRCUITS USING CARBON NANOTUBE FIELD EFFECT TRANSISTORS (CNTFET)
87.	YASHWARDHAN ANAND NARVANE	S GURUNARAYANAN	DESIGN OF SENSOR NETWORK FOR WATER RESOURCE MANAGEMENT SYSTEM
88.	PERLA NAVYA	S GURUNARAYANAN	DESIGN OF HIGH SPEED ARITHMETIC CIRCUITS
89.	SOURABH JAIN	MS DASGUPTA	DESIGN AND FABRICATION OF A PORTABLE VARIABLE FREQUENCY ULTRASONIC SOUND GUN
90.	SIDDHARTH MOHAN	NN SHARMA	DESIGN AND DEVELOPMENT OF ELECTROKINETIC MICROMIXER AND PERFORMANCE OF PCR REACTION USING IT
91.	SHANKAR ANAND DEKA	ARSHAD JAVED	GENERIC PATH PLANNING AND LOCOMOTION IN MOBILE ROBOTS
92.	SHREEVAR RASTOGI	B.D.PANT	MEMS CANTILEVER BASED PHYSICAL, CHEMICAL AND BIOLOGICAL SENSORS AND THEIR APPLICATIONS
93.	GOURAV KHANDELWAL	JITENDRA S RATHORE	DESIGN OF A POPULSION SYSTEM FOR SWIMMING IN LOW REYNOLDS NUMBER REGIME
94.	RAJULA VAMSIDHAR REDDY	ANIL JINDAL	QUANTITATIVE MODELLING OF REVERSE SUPPLY CHAIN
95.	ALOK PACHOLI	MS SONI	THERMAL ANALYSIS OF BRAKING SYSTEM

S.NO.	NAME	FACULTY	PROJRCT TITLE
96.	ANUPAM SINGH	S MURUGESAN	IN-SILICO DESIGN AND STUDY OF SOME NOVEL HIV-1 REVERSE TRANSCRIPTASE INHIBITORS
97.	PRAVEEN KUMAR MISHRA	RAJEEV TALIYAN	ANIMAL RESEARCH ON VARIOUS AFFECTS AND SIDE EFFECTS OF CARDIAC ISCHEMIA
98.	DEEPAK G	DHEERAJ SINGH	OBJECT DETECTION AND RECOGNITION USING KINECT
99.	KHANNAN SUNDAR	DHEERAJ SINGH	OBJECT DETECTION AND RECOGNITION USING KINECT.
100.	JAYESH LATA	SNEH LATA MUROTIYA	DESIGNING OF DIGITAL VLSI CIRCUITS
101.	ANSHUMAN VIJAYVARGIA	LUCKY SHARAN	MATHEMATICAL MODELLING OF NON LINEAR EFFECTS PARTICULARLY XPM AND WDM SYSTEMS WITH HIGH ORDER MODULATION.
102.	TANVANGI TIWARI	K K GUPTA	MATLAB BASED PROCESSING OF ULTRASOUND IMAGES
103.	JASKARAN SINGH GROVER	ANU GUPTA	HIGH-ORDER A-STABLE AND L-STABLE STATE SPACE DISCRETE MODELING OF CONTINUOUS SYSTEMS AND INTERCONNECT MODELING.
104.	SIDDHARTH JAIN	NITIN CHATURVEDI	STUDY AND IMPLEMENTATION OF 6T/9T SRAM CELL AND PERIPHERAL CIRCUITRY.
105.	TANYA VERMA	K K GUPTA	MATLAB BASED PROCESSING OF ULTRASOUND IMAGES
106.	ADHIRAJ SINGH RATHORE	SANGHAMITRA KUNDU	BATCH LEACHING STUDY OF COPPER MINE TAILINGS
107.	NIVIDA GUPTA	RP KHARE	TO STUDY FIBER OPTICS PROXIMITY SENSORS
108.	AMAN KHURANA	MS SONI	THERMAL ANALYSIS OF BRAKING SYSTEM
109.	ANURAG GUPTA	VINITA TIWARI	DIFFERENT MODULATION SCHEMES FOR HIGH SPEED COMMUNICATION
110.	MEGHA SHARMA	SAUMI RAY	COMPARATIVE STUDY OF NICKEL COMPLEX INSIDE AND OUTSIDE POROUS MATERIAL.
111.	SIDDHARTH MAZUMDAR	SAUMI RAY	THE SYNTHESIS OF INORGANIC COMPOUNDS OF TRANSITION METALS AND THEIR BEHAVIOR IN MESOPOROUS MATERIALS.
112.	PENUGONDA SRAVAN RAJ	PARITOSH SHUKLA	SYNTHESIS OF SOME USEFUL ORGANIC COMPOUNDS
113.	SOHAIL SHARIFF	SAUMI RAY	COMPARATIVE STUDY OF COBALT COMPLEX INSIDE AND OUTSIDE POROUS MATERIALS
114.	TEERU GUPTA	RP KHARE	STUDY OF FIBER OPTIC SENSORS FOR DISTRIBUTED MEASUREMENT OF PRESSURE
115.	ADITI KANTHALIA	INDRESH KUMAR	SYNTHESIS OF HETEROCYCLIC COMPOUNDS (SUBSTITUTED PYRROLES)
116.	JESIN ROY	RP KHARE	DEVELOPMENT OF FIBER OPTIC SENSORS FOR THE MEASUREMENT OF STRAIN OR PRESSURE
117.	ANKUSH GUPTA	SUBHAJIT MAJUMDAR	DIFFERENT TYPES OF BIO-FILTRATION TECHNIQUES
118.	AKASH GUPTA	ANSHUMAN DALVI	AG+ ION GLASS CERAMIC IONIC PROPERTIES
119.	ADITYA JOSHI	RAJ KUMAR GUPTA	SYNTHESIS OF THIN FILMS OF QUANTUM DOTS
120.	NATEKAR NIRANJAN AWADHUT	RAJ KUMAR GUPTA	THIN FILMS ON POLYMERS
121.	TUSHAR RATHI	RAJ KUMAR GUPTA	THIN FILMS OF POLYMERS
122.	ANURAG KANKANALA	ANSHUMAN DALVI	LICL BASED IONIC LIQUID GLASS COMPOSITES AND GLASS CERAMICS FOR LI-ION BATTERY APPLICATIONS
123.	ADBHUT GUPTA	RAJ KUMAR GUPTA	SYNTHESIS OF THIN FILMS OF QUANTUM DOTS
124.	ALUGUBELLI SHANTHAN REDDY	ANSHUMAN DALVI	IONIC LIQUID GLASS CERAMIC COMPOSITES FOR LITHIUM BATTERY APPLICATION

S.NO.	NAME	FACULTY	PROJRCT TITLE
125.	PRATEEK SINGHVI	ANSHUMAN DALVI	EFFECT OF IONIC LIQUID DISPERSION ON THE ELECTRICAL PROPERTIES OF VARIOUS SALTS (EG. AG <sup>+</sup> , LI <sub>2</sub> SO <sub>4</sub> , LICL).
126.	DEEPAK SHARMA	ANSHUMAN DALVI	PREPARATION AND CHARACTERISATION OF IONIC LIQUID GLASS COMPOSITE FOR LI <sup>+</sup> ION BATTERY APPLICATION.
127.	MANASI TYAGI	MANJULADEVI V	EXPERIMENTAL STUDIES ON NANOCOMPOSITES OF LIQUID CRYSTALS.
128.	JERIN ROY	RP KHARE	DEVELOPMENT OF FIBER OPTIC SENSORS FOR THE MEASUREMENT OF STRAIN OR PRESSURE
129.	ABHINAV KUMAR	VANDANA AGARWAL	FACE TAGGING IN A VIDEO
130.	POTTI MURTHY YASWANTH	DIPALLOY DATTA	REMOVAL OF PHENOL FROM WASTE WATER USING REACTIVE EXTRACTION
131.	SONAAL BHANOT	DIPALLOY DATTA	REACTIVE EXTRACTION OF PHENOL FROM WASTE WATER USING SUPPORTED MEMBRANE
132.	DEEPAJ SARMAN	DIPALLOY DATTA	REMOVAL OF PHENOL FROM WASTE WATER USING REACTIVE EXTRACTION
133.	NANDAN. K. S	R PUROHIT	MICROCONTROLLER BASED DOMESTIC AUTOMATION
134.	ANISHSANJAY NAYAK	R PUROHIT	MICROCONTROLLER BASED DOMESTIC AUTOMATION.
135.	PRATIKSHA GARG	R PUROHIT	MICROCONTROLLER BASED AUTOMATION SYSTEM

#### STUDY ORIENTED PROJECTS

1.	K.R.KARTIC BHARGAV	GEETHA B	A STUDY INTO PSYCHOANALYTIC FILM THEORY - THE FILMMAKERS SUBCONSCIOUS
2.	AJAY KHAITAN	MAHESWAR DWIVEDI	FINITE VOLUME DISCRETIZATION USING MATLAB
3.	RICHIKA CHOHAN	SHVETANK BHATT	RECENT ADVANCES IN PARKINSONS ASSOCIATED WITH ALZHEIMERS DISEASE(INCLUDING ANIMAL MODEL)
4.	DEEPESH LAKHOTIA	RAJAN PANDEY	STUDY VOLATILITY PROPERTIES USING DATA FROM INDIAN STOCK MARKET
5.	P.NISHIT.JAIN	MAHAVEER SINGH	ROLE OF DYNAMIN IN CNS RELATED DISORDERS AND COMPUTER AIDED DRUG DESIGNING.
6.	NIRANJAN V K	RAJIV KUMAR	STUDY OF LINEAR PARTIAL DIFFERENTIAL EQUATIONS
7.	NIDHI JAYAPALAN	NITIN CHATURVEDI	TRANSISTOR LEVEL IMPLEMENTATION OF HYBRID SRAM/ E-DRAM L1 CACHE FOR MULTI-CORE PROCESSORS
8.	KAMATAM NAVEEN	A ANAND KUMAR	STUDY OF HYBRID ELECTRIC VEHICLES
9.	MAHAN SINGH SEKHON	ANIL RAI	AGES OF INDIAN CLASSICAL MUSIC
10.	ABHIMANYU SINGH NEGI	UMESH DHYANI	REORGANIZATION AND DIVISION OF STATES IN INDIA.
11.	MADASTU NAGESH	A ANAND KUMAR	STUDY OF RENEWABLE ENERGY RESOURCES AND ITS APPLICATIONS.
12.	AMAN RAJ	VISHAL GUPTA	GET IN PRIORITY VECTOR FROM A JUDGEMENT MATRIX IN AHP
13.	KUNAL SHARMA	UMESH DHYANI	COMPUTER REVOLUTION IN INDIA : A POLICY IMPERATIVE
14.	ANSHUMAN BHARDWAJ	SHRINIWAS ARKATKAR	SIMULATION OF TRAFFIC FLOW IN VISSIM
15.	BOGILLA AGASTHYA RAJU	MURALI M PANDEY	PREPARATION OF NANO PARTICLES FOR THE SOLUBILITY ENHANCEMENT OF FELODIPINE.
16.	VISHAL JOHRI	ASHISH MISHRA	STUDY OF RE-CONFIGURABLE BARREL SHIFTER
17.	T.ARPITHA RAO	SRIKANT Y CHARDE	STUDY OF NANO-PARTICLE DRUG DELIVERY

S.NO.	NAME	FACULTY	PROJRCT TITLE
		(HYD)	ADVANCES IN TRANS-DERMAL SYSTEMS.
18.	VIKESH KUMAR VERMA	SATYENDRA KR SHARMA	BOTTOM OF THE PYRAMID
19.	AADEESH JAIN	SARVESH SATIJA	STUDY OF CORPORATE PRACTICES OF KINGFISHER AIRLINES
20.	MAYANK DHAKA	OMVIR CHAUDHRY	FINANCIAL AND MANAGERIAL CONSIDERATIONS IN DETERMINATION OF OPTIMAL CAPITAL STRUCTURE OF BUSINESS FIRMS - A CASE STUDY OF THE INDIAN IT SECTOR
21.	INGUVA SUSHMITHA	SHVETANK BHATT	THALIDOMIDE – PHARMACOLOGY AND TOXICOLOGY
22.	AYYADEVARA .V.P.N. KUMAR	SRIKANTA ROUTROY	LEAN MANUFACTURING
23.	DHRUV RANA	NIKHIL PRAKASH	STUDIES ON METALLOCENE CATALYSTS AND THEIR APPLICATION IN OLEFIN POLYMERIZATION.
24.	ANSHU SAINI	KUMAR NEERAJ SACHDEV	URBANIZATION: A STUDY OF CHILD LABOUR IN PILANI
25.	MOHIT MEHROTRA	NIKHIL PRAKASH	REVIEW OF BIO DEGRADABLE POLYMERS BY ANALYZING THEIR USES AND TRACKING DOWN THE DEVELOPMENTS PERTAINING TO THEIR SYNTHESIS.
26.	PRATYUSH RAMAN	GEETHA B	VISUAL STORYTELLING
27.	NIKHIL JOHN	RAJAN PANDEY	FORECASTING VOLATILITY OF FINANCIAL ASSETS USING HIGH FREQUENCY DATA
28.	RANGA AKHIL	ASHISH MISHRA	DESIGN & DEVELOPMENT OF IP MODULE APPLICATIONS IN VHDL.
29.	SHUBHI AGARWAL	YASHVARDHAN SHARMA	PREDICTION ALGORITHMS USING DATA MINING TECHNIQUES.
30.	K SASHIDHAR REDDY	SATISH K DUBEY	STUDY OF RADIATION HEAT TRANSFER WITH PARTICIPATING MEDIUM
31.	JAJU ABHILASHA SANJAY	SHIVI AGARWAL	STUDY OF ADVANCED MODELS OF DATA ENVELOPMENT ANALYSIS
32.	NEHA JAIN	VIRENDRA S SHEKHAWAT	WIRELESS MULTICAST ROUTTING PROTOCOL
33.	PATHIPAKA AKASH ANAND	ASHISH MISHRA	MAPPING AND SCHEDULING OF TASK GRAPHS ON SOCS
34.	VANGA SRI VIVEK	SANJAY SINGH	DESIGN AND IMPLEMENTATION OF VLSI ARCHITECTURE FOR INCREMENTAL PRINCIPLE COMPONENT ANALYSIS(IPCA)
35.	PRAKHAR BHARGAVA	OMVIR CHAUDHRY	BASEL III: REGULATORY FRAMEWORK BY BANK FOR INTERNATIONAL SETTLEMENTS (BIS) TO SERVE CENTRAL BANKS IN THEIR PURSUIT OF MONETARY AND FINANCIAL STABILITY.
36.	AVINASH UPADHYAYA	NV MURALIDHAR RAO	THE EURO ZONE CRISIS - CAUSES, RETROSPECTIVE EFFECTS AND ITS IMPACT ON VARIOUS SECTORS OF ECONOMY
37.	VICKY JHA	NITIN CHATURVEDI	STUDY AND IMPLEMENTATION OF 6T/9T SRAM CELL AND PERIPHERAL CIRCUITRY
38.	HAFSA WANI	SARVESH SATIJA	A STUDY ON PSYCHOLOGICAL CAPITAL OF BITS EMPLOYEES
39.	LAKHKAR CHAITANYA VISHWANATHRAO	MS SONI	DESIGN OF SOLAR BASED VAPOUR ABSORPTION CHILLED MACHINE (VAM SYSTEM) FOR AIR-CONDITIONING.
40.	YASH AGARWAL	NAVNEET UPADHYAY	EXAMINING THE 4G MOBILE STANDARD CONVERGENCE TO THE LONG TERM EVOLUTION (LTE) STANDARD
41.	KARTHIK GANESH	ANIL K BHATT	THE STUDY OF STRATEGIC PLANNING AND OPERATIONAL OPTIMIZATION INVOLVED IN SUPPLY CHAIN MANAGEMENT PRACTICES OF INDIAN OIL AND

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			GAS INDUSTRY.
42.	NISHANT AGARWAL	RAJESH P MISHRA	STUDY OF SINGLE MACHINE SCHEDULING
43.	PRASANNA ACHAL DATE	MAHESWAR DWIVEDI	DEVELOPMENT OF FUZZY PROMETHEE FOR ANALYZING PERFORMANCE OF GREEN SUPPLY CHAIN MANAGEMENT.
44.	CHETAN CHOPRA	TUFAN CHANDRA BERA	IDENTIFICATION OF PLOUGHING FORCE IN TURNING OPERATION.
45.	SAKSHAM SHARDA	MAHESWAR DWIVEDI	DESIGN OF A KICK BIKE
46.	VIPUL KHULLAR	SRIKANTA ROUTROY	DEVELOPMENT OF PERFORMANCE MEASUREMENT SYSTEM FOR LEAN MANUFACTURING SYSTEMS.
47.	DIKE CHAITANYA ANIL	ANIL K BHATT	MARKET SEGMENTATION
48.	ABHIPRAY AGRAWAL	MAHESWAR DWIVEDI	DEVELOPMENT OF FUZZY PROMETHEE FOR ANALYZING PERFORMANCE OF GREEN SUPPLY CHAIN MANAGEMENT.
49.	VISHALA	TUFAN CHANDRA BERA	IDENTIFICATION OF PLOUGHING FORCE IN TURNING OPERATION
50.	ASEEM DUA	SAI JAGAN MOHAN	A STUDY OF VORTEX FLOWS
51.	SAMARTH AGRAWAL	SAI JAGAN MOHAN	MULTI-BODY MECHANICS
52.	VAIBHAV BANDI	SRIKANTA ROUTROY	A GRAPH THEORETICAL APPROACH FOR MEASURING THE PERFORMANCE OF AGILE MANUFACTURING SYSTEM.
53.	VINOD SINGH	SRIKANTA ROUTROY	DEVELOPMENT OF PERFORMANCE MEASUREMENT SYSTEM FOR LEAN MANUFACTURING SYSTEMS.
54.	VINEET GOYAL	RAJESH P MISHRA	STATISTICAL QUALITY CONTROL AND SIX SIGMA IMPLEMENTATION.
55.	PRABHSIMRAN SINGH	MAHESWAR DWIVEDI	DEVELOPMENT OF GRAPHICAL THEORETICAL MODEL FOR LEAN MANUFACTURING SYSTEMS
56.	HIMANSHU TRIPATHI	MAHESWAR DWIVEDI	DEVELOPMENT OF GRAPHICAL THEORETICAL MODEL FOR LEAN MANUFACTURING SYSTEMS
57.	AKHIL CHATURVEDI	SANJIV KR CHOUDHARY	HARNESSING COGNITIVE NEUROPLASTICITY TO REHABILITATE BRAIN MALARIA PATIENTS
58.	RADHIKA JOSHI	UMA S DUBEY	MEDICINAL PROPERTIES OF CAMELS MILK AND ITS SIGNIFICANCE IN CANCER.
59.	SIDDHARTH NARAYAN AVADHANAM	SUDESHNA M CHOUDHURY	QUANTUM THEORY OF PHOTOSYNTHESIS.
60.	ABHA MAINI	LEELA RANI	PLANNING AND PROCUREMENT OF RETAIL MERCHANDISE IN MICRO ENTERPRISE: AN EXPLORATION
61.	ASHISH BIHANI	PRAPHULLA C SHUKLA	MACROPHAGES IN TUMOR ENVIRONMENT.
62.	PURURAJ SINGH	SHUVENDU N PATEL	EFFECTS OF CARBONATION, SULPHIDES AND CHLORIDES ON PROPERTIES OF CEMENT.
63.	NISHA	SHARAD SRIVASTAVA	CHARACTERIZATION OF MECHANICAL PROPERTIES OF FIBER COMPOSITES
64.	HARSHIT SHARMA	SHUVENDU N PATEL	EFFECT OF CARBONATION, SULPHIDES AND CHLORIDES ON PROPERTIES OF CEMENT.
65.	KURIAN J ALAPATT	R RAGHUNATHAN	ENTREPRENEURIAL THINKING
66.	AAYUSH JAIN	ARYA KUMAR	WHAT FACTORS AFFECT ENTREPRENEURIAL INTENTION OF STUDENTS
67.	NAGABHIRU VAMSI KRISHNA	RAHUL VERMA	SELECTION OF OPTIMAL TOPOLOGY FOR 300 WATT PHOTOVOLTAIC INVERTER SYSTEM
68.	AVINASH KUMAR	JITENDRA S RATHORE	STUDY OF VARIOUS METHODS FOR HYDRODYNAMIC ANALYSIS OF PLANAR AND HELICAL SWIMMING

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			FLAGELLA
69.	HATIM MANSOOR GANDHI	JITENDRA S RATHORE	STUDY OF VARIOUS METHODS FOR HYDRODYNAMIC ANALYSIS OF PLANAR AND HELICAL SWIMMING FLAGELLA
70.	DEBOJIT SENGUPTA	SHIBASISH CHOWDHURY	EXPERIMENTAL METHODS TO STUDY PROTEIN FOLDING MECHANISMS
71.	VENKATESH GANESAN	SAI JAGAN MOHAN	ANALYSIS OF AIRFLOW AND PARTICLE TRANSPORT IN THE HUMAN RESPIRATORY TRACT
72.	VINTI ARORA	JITENDRA PANWAR	SIGNALLING TO ARBUSCULAR MYCORRIZAL FUNGI BY PLANT ROOTS.
73.	AARUSHI BHARGAVA	P SRINIVASAN	HEAT TRANSFER MODELLING AND ANALYSIS OF CREEP DEFORMATION IN A GAS TURBINE BLADE
74.	NEHA AGARWAL	SP VIMAL	IMAGE PROCESSING
75.	SUSHANT MEHTA	SHIBASISH CHOWDHURY	COMPUTATIONAL MODELS FOR STUDYING PROTEIN STRUCTURE
76.	ADITI CHAUDHARY	YASHVARDHAN SHARMA	DATA DISPENSING APPLICATION USING CLOUD AND MOBILE ENVIRONMENT.
77.	ANUJ GUPTA	SHIBASISH CHOWDHURY	PROTEIN MISFOLDING AND RELATED DISEASES.
78.	MEHAK MITTAL	HARIKRISHNAN G NAIR	REDISCOVERING RURAL INDIA
79.	KANCHITA P KUNDARGI	SHARAD SRIVASTAVA	CHARACTERIZATION OF MECHANICAL PROPERTIES OF FIBER COMPOSITES
80.	R ASHA KUMARI	RAJESH MEHROTRA	STUDY OF CELL CYCLE CONTROL IN CANCEROUS AND NORMAL CELLS
81.	SHALEEN SOHAM DESAI	RAHUL SINGHAL	PAYLOAD MAPPING OF IEEE WIRELESS STANDARD ON SONET FRAME.
82.	KOMMAVARAPU RAGHAVENDRA	G SUNDAR	STUDY ON ADVANCED ELECTRONIC STRUCTURE THEORY
83.	PALLI KARTIK	G SUNDAR	APPLICATION OF QUANTUM MECHANICS TO NANO-MATERIALS
84.	SWETHA SUSAN GEORGE	VANDANA AGARWAL	FACE RECOGNITION
85.	VIJAY SHANKAR SAINI	LAJJA	FINITE ELEMENT METHOD FOR BURGERS EQUATION.
86.	AKSHAY SHARMA	PARITOSH SHUKLA	SOME FOOD ADDITIVES AND THEIR CHEMISTRY.
87.	SHOBHIT MOHANTY	NV MURALIDHAR RAO	ECONOMIC ANALYSIS OF CORRUPTION
88.	INDRAJIT HARIDAS	A K GIRI	INFRASTRUCTURE EXPENDITURE AND ECONOMIC GROWTH
89.	MEHAK	OMVIR CHAUDHRY	IMPACT OF SARV SIKSHA ABHIYAAN ON LITERACY - A CASE STUDY OF HARYANA
90.	VIPUL AGARWAL	NV MURALIDHAR RAO	THE CAUSALITY RELATIONSHIP BETWEEN ENERGY PRICES, ENERGY CONSUMPTION AND ECONOMIC GROWTH: A TIME SERIES EVIDENCE FROM BRIC NATIONS.
91.	NEHA JAIN	AKBAR	DEVELOPMENT OF ARM MICRO-CONTROLLER BASED EMBEDDED SYSTEM FOR INSTRUMENTATION APPLICATIONS
92.	SIDDHARTH DHANKHAR	NV MURALIDHAR RAO	AN EXPLORATORY STUDY OF THE IMPLICATIONS OF EUROPEAN UNION TRADE POLICIES ON ITS MEMBER NATIONS.
93.	SHIWAM MITTAL	A K GIRI	EVALUATION AND ANALYSIS OF MILITARY EXPENDITURE OF DIFFERENT COUNTRIES POST COLD WAR
94.	PRANITA KHANDELWAL	DINESH KUMAR	POLICY ON SUBSIDIES IN INDIA: ANALYSIS AND RECOMMENDATIONS

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95.	GAUTAM BOTHRA	A K GIRI	THE IMPACT OF MERGERS AND ACQUISITIONS ON ECONOMIC GROWTH AND FIRM PERFORMANCE : A CASE OF INDIAN ECONOMY
96.	ANISHA BILALA	A K GIRI	LIQUIDITY IN FINANCIAL MARKETS & ITS IMPACT ON STOCK PRICES.
97.	ARNAV JAIN	R RAGHUNATHAN	ISSUES AND CHALLENGES FACED BY COMMERCIAL AIRLINES IN INDIA
98.	AKASH R JATANGI	NV MURALIDHAR RAO	APPLICATION OF COMPUTATIONAL GAME THEORY IN ECONOMICS
99.	SURBHI AGARWAL	A K GIRI	FOREIGN DIRECT INVESTMENT(FDI)IN RETAIL SECTOR IN INDIA: BENEFITS AND COSTS
100.	LOVISH BANSAL	A. S. MANDAL	SALIENCY BASED IMAGE THUMBNAILING
101.	AKSHAT BHARGAVA	A K GIRI	POST LISTING PRICING BEHAVIOR OF SECURITIES: AN EMPIRICAL ANALYSIS
102.	PUNEET REDU	UMESH DHYANI	CIVIL SERVICES IN INDIA
103.	PUNEET REDU	UMESH DHYANI	CIVIL SERVICES IN INDIA
104.	RAMAKANT VERMA	JAVID ALI	STUDY OF MARKET STABILITY VIA FIXED POINT THEOREMS.
105.	RAVIPALLI PRAVEEN CHAND	RAKHEE	TO STUDY THE APPLICATIONS OF TIME SERIES
106.	VASUNDHARA SHARMA	TRILOK MATHUR	STUDY OF CONTINUOUS EVERYWHERE BUT NOWHERE DIFFERENTIABLE FUNCTIONS USING FRACTIONAL CALCULUS OPERATORS.
107.	ANURAJ JAIN	K J RANGRA	BIOLOGICAL APPLICATION OF MEMS DEVICES AND MATHEMATICAL MODELLING OF TORSIONAL ACTUATORS
108.	SAKDEO AMOGH VIVEK	PRADEEP KR H KESKAR	APPLICATION OF GRAPH THEORY IN ELECTRICAL ENGINEERING
109.	KRITI JAIN	VINOD KUMAR CHAUBEY	CAPACITY ENHANCEMENT IN CDMA USING DYNAMIC RESOURCE ALLOCATION
110.	POLEPEDDI ADITYA	K J RANGRA	BIOLOGICAL APPLICATION OF MEMS DEVICES AND MATHEMATICAL MODELLING OF TORSIONAL ACTUATORS
111.	BAJAJ JASH SHAILENDRA	SAI JAGAN MOHAN	OPEN SOURCE ANALYSIS OF DE
112.	PATHAK PRAJAKTA SANJEEV	SHIVI AGARWAL	STUDY OF REAL LIFE APPLICATIONS OF NEURAL NETWORKS.
113.	AYUSHI DAWRA	SHIVI AGARWAL	STUDY OF REAL LIFE APPLICATIONS OF NEURAL NETWORKS
114.	OLIVE CHAKRABORTY	AMIT KUMAR VERMA	STUDY OF PROPERTIES OF RIEMANN ZETA FUNCTIONS AND THEIR RELATION WITH PRIME NUMBERS.
115.	AKSHAY AGARWAL	CHANDRA SHEKHAR	EVALUATION OF PERFORMANCE OF F-POLICY
116.	RITESH BHATIA	CHANDRA SHEKHAR	EVALUATION OF F POLICY
117.	APARNA ROY	GEETHA B	TO ANALYZE LITERARY WORKS OF POST-MODERN AUTHORS, ESPECIALLY ORHAN PAMUK AND IDENTIFY THE MOST COMMON TECHNIQUES, THEMES AND TRENDS USED IN THE POST-MODERNIST STYLE OF WRITING.
118.	ADI SHANTANU	RAKHEE	AN INTRODUCTION TO RANDOM WALK
119.	RAHUL ANAND	MAHESH ANGIRA	STUDY OF RF MEMS SWITCHES
120.	VIVEK SHARMA	BISWANATH LAYEK	GROUP THEORY AND ITS APPLICATIONS IN PARTICLE PHYSICS
121.	YASHVARDHAN SRIVASTAVA	SHAILENDRA S SHEKHAWAT	ANDROID APPLICATION DEVELOPMENT FOR OFF-CAMPUS STUDENTS IN WILP
122.	NIRANJAN S	NAVIN SINGH	THE ZIPPING UNZIPPING TRANSITION IN

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			BIOPOLYMERS
123.	RAKSHITH R	TAPOMOY G SARKAR	INTRODUCTION TO COSMOLOGY
124.	APOORV JINDAL	TAPOMOY G SARKAR	FIELD THEORETIC DESCRIPTION OF MANY PARTICLE QUANTUM MECHANICS
125.	AMOGH GOPINATH	SUDESHNA M CHOUDHURY	QUANTUM MECHANICS OF NON-LINEAR DYNAMICAL SYSTEMS
126.	TANYA MISHRA	RR MISHRA	ADVANCED TOPICS IN QUANTUM MECHANICS
127.	SAGAR UPRETY	RR MISHRA	QUANTUM ENTANGLEMENT AND ITS APPLICATIONS
128.	SUMANPREET KAUR	N MEHALA	INFORMATION RETRIEVAL AND STUDY OF GOOGLE SEARCH ENGINE
129.	GAUTAM GOYAL	RR MISHRA	QUANTUM ENTANGLEMENT AND APPLICATIONS
130.	JOSHI BHARGAV MADHUSUDAN	TAPOMOY G SARKAR	QUANTUM FIELD THEORY
131.	ANGAD V	SUBHASH N KARBELKAR	APPLICATIONS OF OPTICAL INTERFEROMETRY
132.	YUVRAAJ KUMAR	SUDESHNA M CHOUDHURY	DECOHERENCE AND QUANTUM TO CLASSICAL TRANSITION.
133.	SARIPALLY ADITYA BHARADWAJ	SAI JAGAN MOHAN	STUDY AND ANALYSIS OF INCOMPRESSIBLE FLOWS WITH FREE SURFACES
134.	DEEPAK SHARMA	DINESH KUMAR	TAX SYSTEM IN INDIA.
135.	ASNA VARSHNEY	SARVESH SATIJA	OCCUPATIONAL STRESS AND PSYCHOLOGICAL WELL-BEING OF EMPLOYEES IN TWO RESEARCH INSTITUTES (BITS PILANI AND CEERI)
136.	ANKITA GUPTA	SUNITA SINGHAL	IMPLEMENTATION OF MULTI-OBJECTIVE SCHEDULING ALGORITHM
137.	SAMVEDA SHARMA	REMICA AGGARWAL	EXPLORING AND ANALYSING VARIOUS DIMENSIONS OF BITS AS AN ORGANISATION
138.	PRANIT SHAH	S MOHAN	DESIGN OF ARCHITECTURE FOR A GPU
139.	SHITI PANDEY	S MOHAN	TO STUDY THE VARIOUS CPU ARCHITECTURES(DIFFERENT TYPES OF PROCESSORS BEING USED IN CURRENT SCENARIO IN COMPUTERS)
140.	AJITA	RAVI SAINI	DEVELOPMENT OF C CODE FOR FACIAL EXPRESSION RECOGNITION
141.	KANNAGUNDLA SREEJA	VIRENDRA S SHEKHAWAT	MULTI CYCLE IMPLEMENTATION OF MIPS PROCESSOR USING VERILOG
142.	REDLAPALLI JAYA SARATH PRABATH	ASMA RANI	AN ALGORITHM DESIGN TO EVALUATE THE SECURITY LEVEL OF AN INFORMATION SYSTEM BASED ON ANALYTIC NETWORK PROCESS (ANP).
143.	SUBRAMANYAM SRUTHI	KIRAN DC	REGISTER ALLOCATION FOR MUTLI-CORE ARCHITECTURE.
144.	ANISHA MALIK	REMICA AGGARWAL	DATA COLLECTION AND ANALYSIS OF BITS AS AN ORGANIZATION
145.	ANKITA ARORA	RAVI SAINI	DEVELOPMENT OF C CODE FOR FACIAL EXPRESSION RECOGNITION
146.	ANJALI DONERIA	S MOHAN	STUDY OF DIFFERENT CACHE ARCHITECTURES TO IMPROVE PROCESSORS PERFORMANCE.
147.	SUDHANSHU MITTAL	AVINASH GAUTAM	PATH PLANNING AND PATTERN FORMATION USING E-PUCK ROBOTS
148.	GALLA RAJESH BABU	RAKHEE	STUDY OF INDEXING TECHNIQUES TO DISSIMINATE DATA IN BRADCAST ENVIRONMENT
149.	DEWAL GUPTA	SMITA KASHIRAMKA	EFFICIENT MARKET HYPOTHESIS FOR INDIAN CAPITAL MARKET
150.	RACHIT GARG	ANIL KUMAR SAINI	ADAPTIVE COLOR RENDERING



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151.	MEHAK BANSAL	N MEHALA	INFORMATION RETRIEVAL AND STUDY OF GOOGLE SEARCH ENGINE
152.	CHILAPPAGARI SUDHEENDRA	ARYA KUMAR	STUDY OF THE FINANCING OF INDIAN INTERNET BASED STARTUPS - ROLE OF VCS
153.	RAGHAV RAWAT	ANIL KUMAR SAINI	ADAPTIVE COLOR RENDERING
154.	SONI ANUJ KAMALKISHOR	GEETILAXMI MOHAPATRA	EFFICIENCY AND PROFITABILITY OF INDIAN COMMERCIAL BANKS
155.	ADITI TIWARI	GEETHA B	TO STUDY THE ROLE OF WOMEN DIRECTORS IN TRANSFORMING THE STEREOTYPICAL REPRESENTATION OF WOMEN IN INDIAN CINEMA.
156.	NITISH GARG	SRIKANTA ROUTROY	DEVELOPMENT OF INTERPRETIVE STRUCTURAL MODELING FOR AGILE MANUFACTURING SYSTEMS.
157.	RUSHAB SOLANKI	SRIKANTA ROUTROY	DEVELOPEMENT OF BENCHMARKING IN LEAN MANUFACTURING SYSTEM
158.	ASHISH GUPTA	RAJESH P MISHRA	STATISTICAL QUALITY CONTROL AND SIX SIGMA IMPLEMENTATION.
159.	BABITA RATHORE	KUMAR NEERAJ SACHDEV	URBANIZATION: A STUDY OF CHILD LABOUR IN PILANI
160.	SUSHILA KIRODIWAL	ANIL RAI	FILM MUSIC.
161.	RIDDHI DHANNAWAT	LEELA RANI	SUPPLIER AND CONSUMER EXPECTATIONS IN COACHING INSTITUTES: AN EXPLORATION.
162.	AKSHAT JAIN	ARVIND KUMAR SHARMA	WELL LOGGING FOR DRILLING AND PRODUCTION DECISIONS.
163.	TARUN SINGH	MS SONI	THE STUDY OF RENEWABLE ENERGY TECHNOLOGIES
164.	VIRAJ SINGH	AJAY KUMAR PANI	APPLICATION OF NEURAL NETWORK FOR CONTROL OF NON-LINEAR PROCESSES
165.	ANURAG TIWARI	ARVIND KUMAR SHARMA	HEAT & MASS TRANSFER EQUIPMENTS : DESIGN & OPERATION
166.	RUBAL MITTAL	SMITA RAGHUVANSHI	ENVIRONMENT IMPACT ASSESSMENT FOR INDUSTRIES
167.	PIYUSH MITTAL	RAJESH P MISHRA	STUDY OF NON TRADITIONAL OPTIMISATION
168.	AMITVIKRAM DUTTA	NIKHIL PRAKASH	RECENT ADVANCES IN POLYOLEFIN PRODUCTION
169.	SANCHIT JAIN	HK MOHANTA	SEPARATION OF ORGANIC ACIDS FROM PETROCHEMICALS
170.	PRASHANT GUPTA	ARVIND KUMAR SHARMA	DESIGNING OF THE PIPING SYSTEM.
171.	AAKASH AGARWAL	HK MOHANTA	DESIGN OF COOLING TOWERS
172.	NEMMARU V BHARGAVA	AJAY KUMAR PANI	STUDY AND COMPARISON OF SUBSET SELECTION TECHNIQUES FOR DATA BASED MODELLING
173.	KOTHARU ANIL PRASAD	HK MOHANTA	DESIGN OF MULTI-COMPONENT DISTILLATION COLUMNS
174.	MADHAV VARSHNEY	MANOJ KUMAR	THERMAL STRESS IN SKEW SLAB CULVERTS
175.	SHAIFALI MEHTA	ANUPAM SINGHAL	WATER FLOW NETWORK ANALYSIS OF BITS PILANI
176.	ANANT BHARGAVA	MANOJ KUMAR	RESPONSE OF RC BEAMS EXPOSED TO FIRE
177.	ANMOL VERMA	KAMLESH KUMAR	SLIDING SHEAR TEST OF NON WOVEN GEOTEXTILE REINFORCED PILANI SOIL
178.	VEDAVATHY S KAMATH	ANUPAM SINGHAL	WATER FLOW NETWORK ANALYSIS OF BITS PILANI
179.	ISHAN VIRDHI	ANUPAM SINGHAL	DESIGN OF DAMS AND SPILLWAY STRUCTURES
180.	SANGHVI DHRUVI RAJIV	ANIL K BHATT	STUDY OF ULIPS AND COMPARISION OF THE VARIOUS ULIP PLANS OF DIFFERENT COMPANIES

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181.	AMAN AGGARWAL	KAMLESH KUMAR	AVAILABLE IN THE INDIAN INSURANCE MARKET. SLIDING SHEAR TEST OF WOVEN GEOTEXTILE REINFORCED PILANI SOIL
182.	GADA VIVEK	G MUTHUKUMAR	APPLICATION OF BASE ISOLATION SYSTEM FOR BUILDINGS.
183.	DEBASISH CHOWDHURY	K.SOLOMON RAJU	FLOATING POINT DSP MODULE (BY FFT).
184.	SUDHIR DEWANGAN	RUCHIKA SHARMA	EFFECT OF ADVERTISING LANGUAGE ON CHILDREN
185.	GONNABATHULA RAGHU VAMSI	JYOTI	CREATING A LUCID MICRO INVESTMENT MODEL FOR START-UPS AND SMALL BUSINESS
186.	VAIBHAV MARYA	SMITA KASHIRAMKA	COMPREHENSIVE STUDY OF STOCK MARKET
187.	REEVA LOHIA	VIRENDRA S SHEKHAWAT	MULTICORE PROCESSORS: CACHE COHERENCE PROTOCOLS
188.	TOLETI MOUNICA	A K GIRI	ECONOMICS OF PUBLIC SPENDING
189.	RAVI ASWANI	A K GIRI	EVALUATION OF PUBLIC POLICY IN INDIA USING SOCIAL COST-BENEFIT ANALYSIS
190.	SIDHARTH SANKAR	JYOTI	ANALYSIS & INDUSTRY WISE COMPARISON OF WORKING CAPITAL MANAGEMENT
191.	PRAKASH SINGH BHANDARI	GAJENDRA S CHAUHAN	THE NEW MEDIA:- PRINT V/S ONLINE NEWS PAPER
192.	LUV SEHRAWAT	DINESH KUMAR	POLICY EFFECTIVENESS AND AGRICULTURE OUTPUT
193.	MONALISHA DASH	GAJENDRA S CHAUHAN	WHITHER WOMEN EMPOWERMENT
194.	LAKSHMI KUMARI	PUSHP LATA	3 QS FOR PROFESSIONAL SUCCESS
195.	SANKET PUROHIT	NIKHIL PRAKASH	STUDY OF POLYMER NANO-COMPOSITES & ITS APPLICATIONS
196.	ISHITA AGGARWAL	SATYENDRA KR SHARMA	BUSINESS RISK ASSESSMENT USING BAYSIAN NETWORKS
197.	SUMEET SINGH	AKBAR	DEVELOPMENT OF DIGITAL SIGNAL PROCESSING ALGORITHMS FOR NON DESTRUCTIVE TESTING USING ULTRASONIC TRANSDUCERS.
198.	SUKHLEEN SAINI	NIKHIL PRAKASH	ADVANCES IN POLYOLEFIN PRODUCTION
199.	BHAVESH KATARIA	MAHESH ANGIRA	STUDY & ANALYSIS OF RF MEMS SWITCHES FOR TELECOMMUNICATION APPLICATIONS
200.	NAMRATA SINHA	JYOTI	THE STP ANALYSIS, 4P ANALYSIS AND MARKETING RESEARCH OF THE PRODUCTS IN THE SKINCARE SEGMENT
201.	CHAKRADEO SANEET SHIRISH	R GUPTA	DESIGN OF GREEN BUILDING FOR DIFFERENT CLIMATE ZONES OF INDIA.
202.	ABHISHEK SAXENA	ANUPAM SINGHAL	WASTE WATER TREATMENT ANALYSIS USING SOILBIOTECHNOLOGY
203.	NIDHI NARANG	AJIT PRATAP SINGH	FUZZY MULTICRITERIA APPROACH IN WATER RESOURCE MANAGEMENT AND PLANNING
204.	PALASH GUPTA	R GUPTA	DESIGN OF GREEN BUILDING FOR DIFFERENT CLIMATE ZONES IN INDIA
205.	VRASHALI KHANDELWAL	HARIKRISHNAN G NAIR	RIGHT AGAINST EXPLOITATION - AN ELABORATE STUDY OF THE EXPLOITATION PROBLEM, ARTICLES 23 & 24 IN THE CONSTITUTION AND EXISTING MODELS OF ORGANIZATIONS WORKING TOWARDS SOLVING THE ISSUE.
206.	NIKHIL MITTAL	SANJAY SINGH	VLSI IMPLEMENTATION OF CONNECTED COMPONENT ALGORITHM
207.	ROHIT GUPTA	ARUN KUMAR VAISH	THE ROLE OF SECURITIZATION IN LIQUIDITY IN THE MICRO-FINANCE SECTOR
208.	JUHI KAPOOR	ANIL K BHATT	STUDY OF SUPPLY CHAINS OF LEAN FIRMS IN INDIA.

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209.	VIPRAV ANAND	SARVESH SATIJA	GUNAS INVENTORY FOR COLLEGE STUDENTS
210.	ANANT JAIN	MAHAVEER SINGH	DYNAMINE AND CNS DISORDERS
211.	ADNAN HUSAIN	VANDANA AGARWAL	STUDY OF NATURE INSPIRED ALGORITHMS FOR CLUSTERING
212.	AVANTIKA GUPTA	UMA S DUBEY	THE EFFECT OF INFLAMMATION ON THE ACTION OF ANTI CANCER DRUGS
213.	RAVI RANJAN	HARIKRISHNAN G NAIR	THE ROAD FROM ANARCHY TO LIBERTARIANISM : A STUDY
214.	KOTHAMASU SATYAVIHAR	ABHIJIT K DIGALWAR	LEAN MANUFACTURING PRACTICES FOR MANUFACTURING EXCELLENCE - A CASE OF AUTOMOTIVE PART MANUFACTURERS
215.	VIKRESH.N	HARIKRISHNAN G NAIR	FUNDAMENTAL CONCEPTS OF MARXISM
216.	ANURAG GUPTA	NV MURALIDHAR RAO	FINANCIAL INCLUSION, DEVELOPMENT AND INCLUSIVE GROWTH IN INDIA
217.	SIDDHANT JAIN	ANUPAM SINGHAL	TO STUDY THE ASPECTS OF CLIMATE CHANGE
218.	BHUTADA SHRIKANT LAKSHMIKANT	SANJAY SINGH	VLSI IMPLEMENTATION OF CONNECTED COMPONENT ALGORITHM
219.	SHANKHANATH RAYCHOUDHURI	P SRINIVASAN	ANALYSIS OF THE COOLING MECHANISM IN AIR COOLED INTERNAL COMBUSTION ENGINE BY NATURAL CONVECTION IN VARYING CLIMATIC CONDITIONS
220.	VIPUL TYAGI	G MEENAKSHI SUNDARAM	AMPLIFIER DESIGN FOR VHF RANGE
221.	SHASHANK V RAO	KUMAR NEERAJ SACHDEV	AN OBJECTIVE ANALYSIS OF THE DEFINITION, PROPERTIES AND IMPLICATIONS OF THE CONCEPT OF TRUTH
222.	NISHTHA GUPTA	K.SOLOMON RAJU	DEVELOPMENT OF PROTOCOL STACK IN EDK WITH PPC404 OR 440 AND ARM DEPLOYING THEM ON TO THE FPGA BASED WSN SYSTEMS
223.	SHANTANAB DINDA	SRIKANTA ROUTHROY	DEVELOPMENT OF INTERPRETATIVE STRUCTURAL MODELING FOR LEAN MANUFACTURING SYSTEMS
224.	G ANJANI	NIKHIL PRAKASH	PROCESS PLANT DESIGN AND ECONOMIC EVALUATION
225.	SHREYANK JAMAR	SMITA KASHIRAMKA	CORPORATE DEBT RESTRUCTURING : AN OVERVIEW
226.	SAURABH SINGHAL	R GUPTA	TO ESTIMATE THE SOLAR ENERGY POTENTIAL OF INDIA USING GEOGRAPHICAL INFORMATION SYSTEM (GIS)
227.	ANMOL GUPTA	ARYA KUMAR	ROLE OF EXPORTS IN INDIAN ECONOMIC GROWTH AND FINDING IMPACT OF IMPORTS ON THE ECONOMIC GROWTH OF INDIA EMPIRICALLY.
228.	APURV SHARMA	K.SOLOMON RAJU	DEVELOPMENT OF PROTOCOL STACK IN EDK WITH PPC 404 OR 440 AND ARM DEPLOYING THEM ONTO THE FPGA BASED WSN SYSTEMS
229.	MANASA G	SMITA KASHIRAMKA	FORECASTING USING SOCIAL MEDIA NETWORKS
230.	SUHAS KARANTH	P SRINIVASAN	ANALYSIS OF THE COOLING MECHANISM IN AIR COOLED INTERNAL COMBUSTION ENGINE BY NATURAL CONVECTION IN VARYING CLIMATIC CONDITIONS
231.	NITISH BHARGAVA	SHARAD SRIVASTAVA	CHARACTERISATION OF MECHANICAL PROPERTIES OF REINFORCED GLASS FIBRE COMPOSITES.
232.	PRANKUR SHARMA	SHARAD SRIVASTAVA	MODELLING AND SIMULATION OF HYBRID COMPOSITES
233.	RADHIKA ANAND	SMITA KASHIRAMKA	FORECASTING USING SOCIAL MEDIA NETWORKS
234.	DIVYANSH SHUKLA	ARUN KUMAR VAISH	ASSESSING THE PERFORMANCE OF MICROFINANCE

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			INSTITUTIONS
235.	ANIRBAN MUKHERJEE	VIRENDRA SINGH NIRBAN	SOCIAL NETWORKING MEDIA: OPPORTUNITIES AND CHALLENGES
236.	TARUN MOHAN GUPTA	G MEENAKSHI SUNDARAM	AMPLIFIER DESIGN FOR UHF RANGE
237.	SHRUTIKA SONI	RAJAN PANDEY	STUDY OF VOLATILITY PATTERNS OBSERVED FROM INDIAN STOCK MARKET DATA
238.	UTSAV KUMAR	NV MURALIDHAR RAO	DEVELOPMENT OF A NEW PRICING MECHANISM FOR CARBON CREDITS
239.	DEEPIKA BABLANI	M SANTOSH KUMAR	DEVELOPMENT OF PROTOCOL STACK IN EDK WITH PPC404 OR 440 AND ARM DEPLOYING THEM ON TO THE FPGA BASED WSN SYSTEMS
240.	ASTHA DHAYAL	SMITA KASHIRAMKA	RELATIONSHIP BETWEEN STOCK PRICES AND EXCHANGE RATES
241.	PALAK DADA	RAJAN PANDEY	FORECASTING VOLATILITY OF INDIAN STOCK MARKET USING OPTIONS IMPLIED VOLATILITY.
242.	SAUMYA AGRAWAL	RAJAN PANDEY	FORECASTING MARKET VOLATILITY USING (NON LINEAR) GARCH MODELS
243.	VISHAL MEHTA	OMVIR CHAUDHRY	AN ANALYSIS OF THE TECHNOLOGICAL AND ECONOMIC PARAMETERS OF CLOUD COMPUTING INDUSTRY IN INDIA.
244.	NITIN KHANDELWAL	UTKARSH MAHESHWARI	SIMULATION AND OPTIMIZATION OF DISTILLATION PROCESS USING ASPEN PLUS
245.	SARTAJ SINGH MANHAS	SMITA RAGHUVANSHI	CARBON DIOXIDE MITIGATION USING MIXED CULTURE
246.	NISHANT SHARMA	SANGEETA SHARMA	ROLE OF MUSIC IN ADVERTISING
247.	TUSHAR GUPTA	LAJJA	NUMERICAL SOLUTION OF GENERALIZED BURGERS EQUATION
248.	TRIVID SINGH	NITIN CHATURVEDI	VERILOG IMPLEMENTATION OF CACHE MEMORY
249.	VINAY KUMAR.B.R.	RAJIV KUMAR	STUDY OF INTEGRAL INTEGRAL EQUATIONS
250.	NAVDEEP AGGARWAL	SANJAY SINGH	HARDWARE IMPLEMENTATION OF COLOUR EDGE DETECTION
251.	RAJAT GUPTA	AKBAR	USE OF ULTRASONIC SENSORS IN UNDERWATER COMMUNICATION
252.	ANKUR KUMAR	SANJAY SINGH	HARDWARE IMPLEMENTATION OF COLOUR EDGE DETECTION
253.	AKSHIT SINGHVI	AKBAR	USE OF ULTRASONIC SENSORS IN UNDERWATER COMMUNICATION
254.	SIDDHARTH SETH	J L RAHEJA	PARALYZED PATIENT ASSISTANCE SYSTEM USING BRAIN COMPUTER INTERACTION
255.	SAUVIK DUTTA	JITENDRA S RATHORE	FEM ANALYSIS OF JOURNAL BEARINGS SUBJECTED TO DYNAMIC LOADING.
256.	ANUPAM	JITENDRA S RATHORE	FEM ANALYSIS OF CRANKSHAFTS SUBJECTED TO DYNAMIC LOADING
257.	BHANDARI KIRTI SHIVPRAKASH	A S MANDAL	PARAMETRIC IMAGE SYNTHESIS
258.	ABHINAV GUPTA	VIRENDRA SINGH NIRBAN	OPPORTUNITIES AND CHALLENGES OF SOCIAL NETWORKING MEDIA
259.	JAIN AKSHAY VIJAY	RAHUL SINGHAL	SIMULATION OF SOUND USING MATRICES
260.	CHERUVU SRINIVASA SASANKA	ABHIJIT K DIGALWAR	LEAN MANUFACTURING PRACTICES FOR MANUFACTURING EXCELLENCE - A CASE OF OEM FOR AUTOMOBILE INDUSTRY
261.	UTKARSH MISHRA	ARUN KUMAR VAISH	BOND VALUATION AND PRICING OF INTEREST RATE OPTIONS IN INDIA
262.	SUMIT KUMAR	AJIT PRATAP SINGH	FUZZY MULTICRITERIA ANALYSIS FOR WATER

S.NO.	NAME	FACULTY	PROJRCT TITLE
			QUALITY ASSESSMENT
263.	TULIKA GARG	A ANAND KUMAR	THE STUDY OF RENEWABLE RESOURCES
264.	AMRIT RAJ K	VINOD KUMAR CHAUBEY	STUDY AND MODELLING OF ENTANGLED PHOTONS IN OPTICAL COMMUNICATION
265.	PRAMOD R	M SANTOSH KUMAR	DEVELOPMENT OF PROTOCOL STACK IN EDK WITH PPC404 OR 440 AND ARM AND DEPLOYING THEM ON TO THE FPGA BASED WSN SYSTEMS
266.	KAPIL VATWANI	PRAMOD KUMAR	IMPLEMENTATION OF MEAN SHIFT ALGORITHM FOR OBJECT MOTION TRACKING ON FPGAS.
267.	SHWETA MISHRA	SRIKANT Y CHARDE (HYD)	IMPACT OF VARIOUS LAWS ON INDIAN PHARMACEUTICAL INDUSTRY
268.	VISWADEEP SARANGI	J L RAHEJA	TEXT ISOLATION FROM A NATURAL SCENE USING AN ANDROID DEVICE
269.	DEVARAKONDA ABHISHEK	ABHIJIT K DIGALWAR	APPLICATION OF VALUE STREAM MAPPING IN INDIAN MANUFACTURING INDUSTRIES- A LEAN APPROACH
270.	B. ABHINAV RAMANA	GAJENDRA S CHAUHAN	THE ROLE OF SOCIAL MEDIA NETWORKS IN ADVERTISING
271.	TARUN SHARMA	SATYENDRA KR SHARMA	ANALYZING MARKETING STRATEGIES OF SUCCESSFUL IT COMPANIES (FOCUSING ON ONLINE START-UPS)
272.	SUKRITI KUMARI	RAJAN PANDEY	FORECASTING VOLATILITY OF INDIAN STOCK MARKET USING OPTIONS IMPLIED VOLATILITY.
273.	CHETAN CHALOTRA	ANIL KUMAR SAINI	ANALOG BASIC-BUILDING BLOCK: DESIGN AND ANALYSIS FOR ULTRA-LOW VOLTAGE
274.	ABHILEKH BARTWAL	RUCHIKA SHARMA	EFFECT OF ADVERTISING LANGUAGE ON CHILDREN
275.	VISHV MOHAN	PUSHP LATA	LEARNING THE ART OF COMMUNICATION:A PRAGMATIC APPROACH
276.	VISHV MOHAN	ANIL RAI	MUSIC & SCIENCE
277.	PRAKASH SINGH	SHASHIKANT SADISTAP	STUDY OF ACTUATORS (COMB DRIVES, STEPPER MOTORS) AND ITS INTERFACES WITH APPLICATION FOR AGRO AND FOOD PROCESSING.
278.	VAIBHAV GREWAL	MAHESH ANGIRA	STUDY OF MICROWAVE PLASMA TORCH FOR STERILIZATION APPLICATIONS
279.	TADEPALLI SITA RAMA PAVAN KUMAR	HARI OM BANSAL	CONTROL OF SMART GRID TECHNOLOGIES
280.	SIDDHARTH JAIN	ABHIJIT R ASATI	CONVERTING THE IMAGE PROCESSING MATLAB CODE TO VERILOG CODE
281.	HUSAIN YASIR MOHSIN	JAMIL AKHTAR	HOT-CARRIER PHENOMENON IN SEMICONDUCTOR DEVICES
282.	C NAGA GANESHA SABAREESH	VINOD KUMAR CHAUBEY	CHAOS BASED SPREAD SPECTRUM SCHEMES IN MODERN COMMUNICATION PLATFORMS
283.	ANNE SRIKAR	VINOD KUMAR CHAUBEY	STUDY & REALISATION OF VISION-REALISTIC RENDERING
284.	CH SAMPATH	JAI GOPAL PANDEY	HARDWARE/SOFTWARE IMPLEMENTATION OF IMAGE/VIDEO PROCESSING ALGORITHMS
285.	NISHANT MISHRA	JAMIL AKHTAR	HOT-CARRIER PHENOMENON IN SEMICONDUCTOR DEVICES
286.	ASHWIN SRINATH SUBRAMANIAN	VINOD KUMAR CHAUBEY	CHAOS BASED SPREAD SPECTRUM SCHEMES IN MODERN COMMUNICATION PLATFORMS
287.	PRATIK ANAND	ANIL KUMAR SAINI	ANALOG DESIGN ISSUES IN NANOMETER REGION
288.	EDARA HEMANTH	K.SOLOMON RAJU	FPGA BASED-IMPLEMENTATION OF DIGITAL SIGNAL PROCESSING SYSTEMS
289.	CH VIJAY NAGA	NAVNEET UPADHYAY	VERTICAL HANDOVER IN WIRELESS MOBILE

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	JYOTH SUMANTH		COMMUNICATIONS
290.	PASAPULA RAGHU SUVEER	LUCKY SHARAN	MICROCONTROLLER BASED AUTOMATION SYSTEMS
291.	PARIMI S GANESH SAI SASANK	SRINIVAS REDDY K	A STUDY ON SCRIPTING LANGUAGES USED FOR EDA TOOLS
292.	KARANAM SIRISHA	ABHIJIT R ASATI	NBTI DEGRADATION ISSUES
293.	RACHIT KUMAR GOEL	RAHUL SINGHAL	DESIGN AND SIMULATION OF POLYMERIC ELECTRO-OPTIC SWITCH.
294.	SIDDHARTH DAGA	PAWAN SHARMA	ARCHITECTURAL IMPLEMENTATION USING REVERSIBLE LOGIC
295.	DEHADRAY PRATISHTHA MANGESH	RAVI SAINI	FLOATING POINT DIVISION AND MULTIPLICATION IN VERILOG AND ITS IMPLEMENTATION ON FPGA
296.	ANIMESH MISRA	A K SINHA	SIMULATION AND ANALYSIS OF METAMATERIALS IN THE INTERACTION OF A GYROTRON
297.	VAIBHAV YENAMANDRA	JITENDRA SINGH	MICROSTRIP FILTERS - FERROELECTRIC DEVICES.
298.	SARANSH JAIN	ARSHAD JAVED	STUDY OF ROBOT EXOSKELETON
299.	JAY BIPIN SHAH	JAMIL AKHTAR	STUDY OF ADVANCED NETWORKING SYSTEMS
300.	VISHWANADHA VARUN	RAKHEE	TELECOMMUNICATIONS AND APPLICATIONS OF QUEUEING THEORY
301.	V SHASHI KIRAN	JAI GOPAL PANDEY	HARDWARE/SOFTWARE IMPLEMENTATION OF IMAGE/VIDEO PROCESSING ALGORITHMS
302.	KUSHAL SINGHAL	ABHIJIT R ASATI	CONVERTING THE IMAGE PROCESSING MATLAB CODE TO VERILOG CODE
303.	ISHA INANI	SWATI KESKAR	SYSTEM DESIGN USING STM MICRO-CONTROLLER.
304.	SIDDHARTHA JAIN	MAHESH ANGIRA	STUDY OF DBD BASED PLASMA NEEDLE FOR BIO MEDICAL APPLICATIONS
305.	ANKUSH TAKYAR	SHASHIKANT SADISTAP	STUDY OF WORKING AND INTERFACING OF SENSORS
306.	NALIN AGGARWAL	RAJIV RANJAN SINGH	BIOMEDICAL SIGNAL MONITORING FOR ANOMALY DETECTION
307.	ISHAN GUPTA	SHASHIKANT SADISTAP	STUDY OF WORKING AND INTERFACING OF ACTUATORS
308.	SHAH SHARVIN PRAFULL	R.S.RAJU	INTERFACING OF THERMIONIC EMISSION MICROSCOPE FOR ELECTON MAPPING AT CATHODE USING LABVIEW
309.	SHASHWAT KISHORE	G MEENAKSHI SUNDARAM	MATHEMATICAL MODELING OF MEMS RESONATOR
310.	SOMJI SHUKLA	SNEH LATA MUROTIYA	DESIGN AND IMPLEMENTATION OF DIGITAL VLSI CIRCUITS
311.	RIMA HIRENDRASINH RANA	VINOD KUMAR CHAUBEY	PERFORMANCE ASPECTS OF 3G AND 4G BROADBAND WIRELESS STANDARDS
312.	RAJAT TAPARIA	R.S.RAJU	INTERFACING OF THERMIONIC EMISSION MICROSCOPE FOR ELECTON MAPPING AT CATHODE USING LABVIEW
313.	HARSH KUMAR GUPTA	SNEH LATA MUROTIYA	DESIGN AND IMPLEMENTATION OF DIGITAL VLSI CIRCUITS
314.	BANKAR AVANISH SANJEEV	ANIL K BHATT	COMPARATIVE STUDY OF VARIOUS TERM LIFE INSURANCE POLICIES AVAILABLE IN INDIA
315.	T HARSHA VARDHAN REDDY	R RAGHUNATHAN	ISSUES AND CHALLENGES FACED BY COMMERCIAL AIRLINES IN INDIA
316.	K V S S KRISHNA SHASHANK	ANIL JINDAL	REVIEW OF QUANTITATIVE MODELS AND FRAMEWORK FOR REVERSE LOGISTICS
317.	ANUJ SINGH	P SRINIVASAN	RESIDUAL LIFE ASSESSMENT IN WATER TUBE BOILERS

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318.	AKOLEKAR HARSHAL DEEPAK	KULDIP SINGH SANGWAN	DEVELOPMENT OF A FRAMEWORK IN LEAN MANUFACTURING
319.	POLAMARASETTY VINAYKUMAR	MAHESWAR DWIVEDI	AN ADVANCED STUDY ON FASTENER FAILURES AND THEIR DESIGN METHODOLOGY.
320.	KAMAL SAJNANI	MAHESWAR DWIVEDI	DESIGN AND ANALYSIS OF BALL BEARINGS FOR EXPECTED LIFE.
321.	SHAIK ABDUL ASIF	P SRINIVASAN	THEORITICAL PREDICTION OF HEAT TRANSFER COEFFICIENT OF WATER AT SUPER CRITICAL FLOW REGION.
322.	ABHILASH KANDWAL	P SRINIVASAN	RESIDUAL CREEP LIFE ASSESSMENT OF METALS AND ALLOYS(OPERATING AT HIGH TEMPERATURES FOR LONG TIME).
323.	KARTIK GUPTA	SACHIN U BELGAMWAR	ELECTRO-CO-DEPOSITION OF COPPER AND MWCNT
324.	SHAARABH MURARKA	P SRINIVASAN	THEORETICAL PREDICTION OF HEAT TRANSFER COEFFICIENT OF WATER AT SUPER CRITICAL FLOW REGION
325.	MELLACHERUVU PADMINI	ANIL JINDAL	THE DESIGN OF SUSTAINABLE LOGISTIC NETWORK UNDER UNCERTAINTY
326.	AAYUSH AGARWAL	RAJESH P MISHRA	STUDY OF SINGLE MACHINE SCHEDULING
327.	SHUBHANGI SATPATHY	P SRINIVASAN	PREDICTING THE INFLUENCE OF OXIDE SCALE FORMATION ON CREEP FAILURE OF SUPERHEATER TUBES USED IN POWER BOILERS.
328.	PULKIT GOYAL	MAHESWAR DWIVEDI	GESTURE RECOGNITION USING KINECT
329.	MIHIR BAKHAI	SAI JAGAN MOHAN	AERODYNAMIC DESIGN OF VTOL ( VERTICAL TAKE OFF AND LANDING) MICRO AERIAL VEHICLES
330.	NILESH SAHA	AJAY AGARWAL	REALISATION OF NANO-DIMENSIONAL SILICON WIRES BY TOP-DOWN APPROACH
331.	GODBOLE NIRANJAN SUBODH	SARVESH SATIJA	GUNAS INVENTORY FOR COLLEGE STUDENTS
332.	RAJAT SHARMA	SHIVI AGARWAL	APPLICATION OF FUZZY LOGIC TO HANDWRITTEN CHARACTER RECOGNITION
333.	NAMIT MAHESHWARI	ANIL KUMAR SAINI	ALGORITHM DEVELOPMENT FOR DETECTING CALM AND ULTRA-CALM BEHAVIOR.
334.	ISHAN CHAWLA	MAYURI DIGALWAR	STUDY AND IMPLEMENTATION OF EXISTING CPU SCHEDULING ALGORITHMS ON MULTIPROCESSOR AND MULTICORE PROCESSORS.
335.	MOHIT MINHAS	DHEERAJ SINGH	GESTURE RECOGNITION USING KINECT
336.	INTURI ANUPAMA	VIRENDRA S SHEKHAWAT	PERFORMANCE ANALYSIS OF COUNTER BASED CACHE REPLACEMENT ALGORITHMS.
337.	SREE HARSHA RAMESH	ANIL KUMAR SAINI	ALGORITHM DEVELOPMENT FOR DETECTION OF CALM/ULTRA CALM BEHAVIOUR
338.	JAIPREET SINGH	MAYURI DIGALWAR	LITERATURE REVIEW OF VARIOUS LINUX SCHEDULERS
339.	SUMIT KHANNA	DHEERAJ SINGH	CONVERSION OF BLACK AND WHITE (GRAY) IMAGE TO COLORED IMAGE
340.	VIBHA CHANDRAMOULI BELAWADI	MAYURI DIGALWAR	COMPARISON OF SCHEDULING TECHNIQUES FOR UNIPROCESSOR AND MULTIPROCESSOR SYSTEMS
341.	KEYUR KASHIKAR	YASHVARDHAN SHARMA	SEMANTIC DATA MODELLING FOR WATER MANAGEMENT SYSTEMS
342.	CHUNDI NAGA NARASIMHA DEV	ARYA KUMAR	STUDY OF THE FINANCING OF INDIAN INTERNET BASED STARTUPS - ROLE OF VCS
343.	JARIWALA ISHIT DINESH	KIRAN DC	STIDY OF COMPILER CONSTRUCTION & INTERFACING IN MULTICORE ARCHITECTURE.
344.	AVINAV SINGLA	VANDANA AGARWAL	PART OF SPEECH RECOGNITION

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345.	SATISH PRAKASH GARG	AMIT KUMAR VERMA	DEVELOPMENT OF PACKAGES IN MATLAB/MATHEMATICA FOR SOLVING BOUNDARY VALUE PROBLEMS FOR ORDINARY DIFFERENTIAL EQUATION.
346.	KANAV	VISHAL GUPTA	RANKING IN SEARCH ALGORITHMS.
347.	MOHIT CHALLA	JP MISRA	UNDERSTANDING NETWORK SECURITY AND IMPLEMENTATION THROUGH PENETRATION TESTING
348.	ABHILASH SRIVASTAVA	MAYURI DIGALWAR	STUDY OF MEMORY ISSUES IN UNI-PROCESSOR AND MULTI-PROCESSOR SYSTEMS
349.	P DEEPAK PRASHANTH	DHEERAJ SINGH	GESTURE RECOGNITION USING MICROSOFT KINECT
350.	BHARAT ANAND	K.SOLOMON RAJU	OPERATING SYSTEM FOR WSN(WIRELESS SENSING NETWORK)
351.	SHRUTI GUPTA	SP VIMAL	TEMPORAL CONTEXT BASED IMAGE CLASSIFICATION.
352.	NEERAJ KUMAR JHA	MAYURI DIGALWAR	A PROJECT ON THE STUDY OF LINUX SCHEDULERS FOR MULTIPROCESSOR AND MULTI-CORE SYSTEMS.
353.	AMIT CHOWDHARY	MAYURI DIGALWAR	A PROJECT ON THE STUDY OF LINUX SCHEDULERS FOR MULTIPROCESSOR AND MULTI-CORE SYSTEMS.
354.	SPRIHA SAGGAR	DINESH KUMAR	POLICY ON SUBSIDIES IN INDIA: ANALYSIS AND RECOMMENDATIONS
355.	VED BHAVIN PRADEEP	RAVI SAINI	FLOATING POINT DIVISION AND MULTIPLICATION IN VERILOG AND ITS IMPLEMENTATION ON FPGA
356.	RITIKA CHAUDHURY	SC BOSE	WIRELESS SENSOR COMMUNICATION
357.	PAI ANKIT VINODKUMAR	JYOTI	RISK MODELING FOR VENTURE CAPITALISTS USING MACHINE LEARNING TECHNIQUES
358.	SUMAN SAURAV GIRI	ANIL KUMAR SAINI	ANALOG BASIC-BUILDING BLOCK: DESIGN AND ANALYSIS FOR ULTRA-LOW VOLTAGE
359.	GURU DARSHAN PM	VINOD KUMAR CHAUBEY	IMPLEMENTATION AND INTERCONNECTION OF WIRELESS SENSOR NETWORKS
360.	YUDHAJEET DASGUPTA	SUREKHA BHANOT	APPLICATION OF WIRELESS SENSOR NETWORK IN AGRICULTURE
361.	SWAPNIL PANDEY	K.SOLOMON RAJU	FLOATING POINT DSP MODULE(BY FFT)
362.	ABHILASH JAIN	PAWAN SHARMA	IMPLEMENTATION OF DIGITAL DESIGN AND MICROPROCESSOR BASED SYSTEMS USING SIMULATION
363.	SANKET BAHALKAR	PAWAN SHARMA	IMPLEMENTATION OF DIGITAL DESIGN AND MICROPROCESSOR BASED SYSTEMS USING SIMULATION TECHNIQUES.
364.	AKSHAY GARG	SHASHIKANT SADISTAP	STUDY AND INTERFACING OF SENSORS
365.	SUVONIL CHATTERJEE	JYOTI	RISK MODELING FOR VENTURE CAPITALISTS USING MACHINE LEARNING TECHNIQUES
366.	RUBIA R	PUSHP LATA	3 QS FOR PROFESSIONAL SUCCESS.
367.	YOGESH CHOUDHARY	SMITA KASHIRAMKA	CORPORATE RESTRUCTURING
368.	DIVYANSH BHATIA	SMITA RAGHUVANSHI	BIOFILTRATION FOR REMOVAL OF POLLUTANTS(VOCS,CHLORINATED VOCS,METAL IONS)
369.	BHAGWAT SHUBHANKAR SUDHIR	SHARAD SRIVASTAVA	NANO-ROBOT PROPULSION USING HELICAL ELASTIC FILAMENTS AT LOW REYNOLDS NUMBERS
370.	SALIL LAHIRI	OMVIR CHAUDHRY	DEVELOPMENT IN AGRICULTURAL SECTOR OF INDIA
371.	ARPIT	MS SONI	STUDY OF SOLAR STIRLING ENGINE
372.	APOORV SHRIVASTAVA	AMOL M R MARATHE	STUDY OF AIR FOIL DESIGN AND PERFORMANCE IN TURBULENT FLOWS
373.	SHANKY JAISWAL	UMESH DHYANI	CORPORATE GOVERNANCE



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374.	ROMA NOTANI	SATISH K DUBEY	RADIATION HEAT TRANSFER MODELLING AND ITS IMPLEMENTATION.
375.	ANIMESH CHOUBEY	MS DASGUPTA	LEAK PROOFING IN METAL TO METAL CONTACT
376.	MEHTA VAIBHAV RAMESH	ARSHAD JAVED	TOPOLOGY OPTIMISATION OF THE BELL-CRANK AND UPRIGHT OF AN FSAE CAR.
377.	KRISHAN LALCHANDANI	P SRINIVASAN	RESIDUAL LIFE ASSESSMENT IN WATER TUBE BOILERS.
378.	MADAMSETTY ACHYUTH NAIDU	UMESH DHYANI	CORPORATE GOVERNANCE
379.	SUGGU PANDU RANGA RAO GUPTA	SUNIL KUMAR DUBEY	PROTEIN ANALYSIS USING LIQUID CHROMATOGRAPHY TANDEM MASS SPECTROSCOPY
380.	MUGDHAA GARG	SANGEETA SHARMA	ANIMATION IN ADVERTISING
381.	ABHINAV PANDEY	JYOTI	ANALYSIS & INDUSTRY WISE COMPARISON OF WORKING CAPITAL MANAGEMENT
382.	SRIIVATSAN G	UMA S DUBEY	NEUROIMMUNOLOGY OF MULTIPLE SCLEROSIS
383.	SNEHA KUMARI	ARCHANA K K	RECENT ADVANCES IN TARGETED DRUG DELIVERY ON CANCER.
384.	KRISHNA SAI CHARAN YANAMANDRA	RAJEEV TALIYAN	TO STUDY THE NEUROPROTECTIVE EFFECT OF EGB-761 AGAINST BRAIN STROKE.
385.	RIDDHIMAN PAL	SHVETANK BHATT	RECENT ADVANCES IN THROMBOTIC DISORDERS
386.	SAKSHI BAJORIA	SHVETANK BHATT	RECENT ADVANCES IN THROMBOTIC DISORDERS
387.	AAKASH PARIHAR	UMESH DHYANI	ADMINISTRATION THEORY
388.	ADIP VIJAY JHAVERI	UMA S DUBEY	ROLE OF TELOMERASE INHIBITORS IN CANCER THERAPY
389.	SHRUTI SHENBAGAM	RAJESH MEHROTRA	UNDERSTANDING THE MOLECULAR MECHANISMS OF CELL DIVISION
390.	ASHISH KUMAR AGRAWAL	SUNIL KUMAR DUBEY	LC NMR AND LC MS COUPLING TECHNOLOGY : RECENT ADVANCES AND APPLICATION.
391.	SALONI KAPIL	R RAGHUNATHAN	PATENT EXPIRY - OPPORTUNITIES AND THREATS FOR THE PHARMACEUTICAL INDUSTRY GLOBALLY
392.	ABHISHEK CHATURVEDI	ARCHANA K K	RECENT ADVANCES IN TARGETED DRUG DELIVERY TO CENTRAL NERVOUS SYSTEM(CNS).
393.	AMAN KUMAR	ARCHANA K K	LATEST ADVANCES IN NASAL DRUG DELIVERY SYSTEMS
394.	SHAURYA CHANANA	SRIKANT Y CHARDE (HYD)	STUDY OF THE VARIOUS IN-VITRO TECHNIQUES FOR DRUG PERMEATION
395.	CHIRAG RAMNANI	ANIL RAI	MUSICAL INSTRUMENTS
396.	SHUJA SHABIR	VISHAL GUPTA	DEIGNING A PERSONALIZED SEARCH ENGINE
397.	SUCHITA JAIN	RAVI SAINI	DEVELOPMENT OF C CODE FOR FACIAL EXPRESSION RECOGNITION
398.	NAVDEEP KUMAR	SHIVI AGARWAL	DEVELOP A NEURAL NETWORK MODEL BASED ON THE INDUSTRY DATA
399.	SHWETA RAJANI	DHEERAJ SINGH	TEXT RECOGNITION USING IMAGE PROCESSING
400.	MAYANK GUPTA	DHEERAJ SINGH	TEXT RECOGNITION USING IMAGE PROCESSING IN JAVA
401.	AAYUSH AHUJA	JP MISRA	UNDERSTANDING NETWORK SECURITY AND IMPLEMENTATION THROUGH PENETRATION TESTING.
402.	MUNUKUTLA PURNA SOWMYA	MURALI P	STUDY OF ROUTING ALGORITHMS IN MULTI-RADIO LOW-MOBILITY MOBILE ADHOC NETWORKS
403.	AMIT KANWAR	KIRAN DC	STUDY FOR REGISTER ALLOCATION & INTERFACING IN MULTICORE PROCESSORS.
404.	PATEL MITASVIL	ASHISH MISHRA	DEVELOP A PERSONALITY DETECTION ALGORITHM

S.NO.	NAME	FACULTY	PROJRCT TITLE
	DEVENDRAKUMAR		FOR INTERROGATION.
405.	SABYASACHI UPADHYAY	AMIT KUMAR VERMA	A STUDY ON PRIME NUMBERS AND THEIR APPLICATIONS E.G. CRYPTOGRAPHY.
406.	ANOOP KUMAR JOSHI	SATYENDRA KR SHARMA	WEB BASED SUPPLY CHAIN MANAGEMENT.
407.	MRINAL SOOD	NAVNEET UPADHYAY	EXAMINIG THE 4G STANDARD MOBILE CONVERGENCE TO THE LONG TERM EVOLUTION (LTE) STANDARD
408.	RAHUL DE	KUMAR S BHATTACHRYA	ANALYSING THE LITERARY PRODUCTIONS OF THE "BENGAL RENAISSANCE"
409.	KOMANDLA BHARATH REDDY	RAJESH P MISHRA	STRAGIES FOR SUSTAINABLE PRODUCT DESIGN FOR MASS CUSTOMIZATION
410.	ADITYA KRISHAN AGARWAL	AKBAR	DEVELOPMENT OF DIGITAL SIGNAL PROCESSING ALGORITHMS FOR NON DESTRUCTIVE TESTING USING ULTRASONIC TRANSDUCERS.
411.	RAVISHA S K	RP PAREEK	TO ESTABLISH A STANDARD OPERATING PROCEDURE TO CHECK THE NUTRIENT ABSORPTION CAPACITY OF THE PATIENTS AND TO PROVIDE CUSTOMIZED PREVENTIVE CARE, BY MAKING SUITABLE CHANGES IN THEIR DIET.
412.	NEETHA RAJASENA KURUP	GEETHA B	A STUDY INTO PSYCHOANALYTIC FILM THEORY - THE FILMMAKERS SUBCONSCIOUS
413.	KRISHNAROOOP CHAUDHURI	SURESH GUPTA	OPTIMIZATION OF PACKED DISTILLATION PROCESS
414.	SAMARTH SACHDEVA	YASHVARDHAN SHARMA	QUERY OPTIMIZATION THROUGH LOAD BALANCING TECHNIQUES
415.	PRASHANT CHOUDHARY	GAJENDRA S CHAUHAN	THE ROLE OF SOCIAL MEDIA NETWORKS IN ADVERTISING
416.	THATIPALLI MANASA	DIPENDU BHUNIA	INVESTIGATION OF THE EFFECT OF CARBONATION ON THE PROPERTIES OF CONCRETE
417.	AGARWAL RAJAT SANJAY	RP PAREEK	TO ESTABLISH A STANDARD OPERATING PROCEDURE TO CHECK THE NUTRIENT ABSORPTION CAPACITY OF THE PATIENTS AND TO PROVIDE CUSTOMIZED PREVENTIVE CARE, BY MAKING SUITABLE CHANGES IN THEIR DIET.
418.	SAURABH SAHA	RUCHIKA SHARMA	ROLE OF COGNITIVE PSYCHOLOGY IN ADVERTISEMENT
419.	TALLAPRAGADA SIVA SAINATH	SRINIVAS REDDY K	STUDY ON FINITE IMPULSE RESPONSE FILTERS
420.	TUSHAR TIWARI	KAMLESH KUMAR	GROUND VIBRATION ENGINEERING
421.	VARSHA REDDY ETIKYALA	SUNIL KUMAR DUBEY	ANALYTICAL AND BIOANALYTICAL METHOD DEVELOPMENT STRATEGIES
422.	GANGISETTY MANOJ SAI BHARATH	RAJESH P MISHRA	ELECTRIC DISCHARGE MACHINING
423.	ANEESH SHARMA	SANGHAMITRA KUNDU	UP FLOW ANAEROBIC SLUDGE BLANKET (UASB) REACTOR
424.	A.BHASKAR BHARADWAJ	SHRINIWAS ARKATKAR	TRANSPORTATION PLANNING STUDY
425.	ANUBHAV CHATURVEDI	RAJESH P MISHRA	MULTI-CRITERIA DECISION MAKING APPROACH FOR VENDOR SELECTION
426.	ACHAL GUPTA	UMESH DHYANI	A DETAILED ANALYSIS OF INDIAN ADMINISTRATION - SALIENT FEATURES, ADVANTAGES AND DRAWBACKS. EMPHASIS ON RELEVANCE IN TODAYS SOCIETY
427.	JOYNEEL ACHARYA	T CHAKRABORTY	A STUDY ON CHANGING URBAN CONSUMPTION PATTERN IN GLOBALISED INDIA
428.	ALAKSHIT	MS SONI	CNG DIRECT INJECTION (SPARK PLUG INJECTOR)

S.NO.	NAME	FACULTY	PROJRCT TITLE
	TRIPATHI		
429.	ANUPINDI VAMSHI RUTHWIK	SRIKANT Y CHARDE (HYD)	DRUG APPROVAL PROCESS STUDY
430.	SIDDHANT RAHUL PATEL	NN SHARMA	MICROELECTROMECHANICAL SYSTEMS(MEMS) DEVICES, MICROACTUATORS AND SENSORS
431.	NIKHIL SONTALIYA	KULDIP SINGH SANGWAN	ORGANIZATIONAL ASPECTS OF LEAN MANUFACTURING IMPLEMENTATION IN SMES
432.	S RAGHAV	RAJAN PANDEY	VOLATILITY FORECASTING MODELS
433.	SANDEEP DASARI	KAMLESH KUMAR	GROUND VIBRATION ENGINEERING
434.	IVY DUTTA	SHVETANK BHATT	ROLE OF 5-HT3 RECEPTOR (SEROTONIN TYPE-3 RECEPTOR) ANTAGONISTS IN DEPRESSION, ANXIETY AND RELATED DISORDERS
435.	LANKA PRADYUMNA	SARVESH SATIJA	HAPPINESS IN RELATION TO VALUES IN ACTION/ STRENGTHS: A STUDY ON BITS PILANI STUDENTS
436.	SHASHANK JAIN	OMVIR CHAUDHRY	BASEL III : REGULATORY FRAMEWORK BY BANK FOR INTERNATIONAL SETTLEMENTS (BIS) TO SERVE CENTRAL BANKS IN THEIR PURSUIT OF MONETARY AND FINANCIAL STABILITY
437.	AKASH TRIPATHI	SRIKANTA ROUTROY	DEVELOPMENT OF PERFORMANCE MEASUREMENT SYSTEM FOR WORLD CLASS MAINTENANCE SYSTEM
438.	YAJNASENI SAHA	SUREKHA BHANOT	EVOLUTION OF CONTROLLERS IN AUTOMATION
439.	ABHINAV PANDEY	SP VIMAL	EXPLORATION OF THE SCOPE FOR SPATIAL-TEMPORAL CONTEXT IN IMAGE/SCENE UNDERSTANDING.
440.	POTANA PRASHANTH	TO BE ANNOUNCED	INVENTORY MANAGEMENT USING JIT TECHNIQUES
441.	RAGHAV KATOCH	A ANAND KUMAR	DESIGN AND ANALYSIS OF SOLAR BASED INVERTERS USING LABVIEW
442.	CHARU CHOWDHARY	RAKHEE	STUDY OF CHANNEL ALLOCATION SCHEMES IN CELLULAR RADIO NETWORKS
443.	UTSUK SHARMA	A ANAND KUMAR	DESIGN AND ANALYSIS OF SOLAR BASED INVERTERS USING LABVIEW
444.	CHIRANJEEV MAKHIJA	AJIT PRATAP SINGH	WATER QUALITY MANAGEMENT.
445.	NIKHIL SEHGAL	G MUTHUKUMAR	STUDY THE IMPACT OF CHEMICAL ADMIXTURES IN HIGH STRENGTH CONCRETE
446.	ROSHAN GUPTA	NAVNEET UPADHYAY	EXAMINING THE 4G MOBILE STANDARD CONVERGENCE TO THE LONG TERM EVOLUTION(LTE) STANDARD.
447.	ANUBHAV SURI	MEGHNA CHARDE	EVALUATION OF THERMAL PERFORMANCE OF A GREEN BUILDING TO CALCULATE THE ENERGY REQUIREMENTS FOR HEATING/ COOLING
448.	GUPTA KETKI ANIRUDDHA	SUNEEL KUMAR	ASSESSMENT OF JAVA FRAMEWORKS FOR THE SUITABILITY OF A WEB-ENABLED KNOWLEDGE-BASED SYSTEM.
449.	J.BHARATH	SHASHI	DIFFERENTIAL EVOLUTION
450.	J.BHARATH	NARESH KUMAR REDDY N	DIFFERENTIAL EVOLUTION
451.	NIDHI AGARWALA	BASEER AHMED	DESIGN OF HEAT EXCHANGER NETWORK (HEN)
452.	PARMAR MEHUL JAYANTILAL	BASEER AHMED	DYNAMICS AND CONTROL OF REACTIVE DISTILLATION COLUMN
453.	PENUMARTHY PARAMESH BHARADWAJ	SHASHI	APPLICATION OF PSO FOR SOLVING TRAVELLING SALESMAN PROBLEM (TSP)
454.	PENUMARTHY PARAMESH BHARADWAJ	NARESH KUMAR REDDY N	APPLICATION OF PSO FOR SOLVING TRAVELLING SALESMAN PROBLEM (TSP)

S.NO.	NAME	FACULTY	PROJRCT TITLE
455.	PRANAV SRINIVAS NAGAVELLI	MEGHNA CHARDE	LIFE CYCLE COST ANALYSIS OF GREEN BUILDINGS
456.	SAGAR ARORA	SUNEEL KUMAR	OPTIMISING INFERENCING MECHANISM IN A RULE BASED SYSTEM
457.	THAKKALAPALLY PRASHANTH RAO	SUNEEL KUMAR	OPTIMIZATION OF RULES INFERENCING MECHANISM
458.	VIVEK SURA	SUNEEL KUMAR	IMPLEMENTING AI TECHNIQUES IN WEB-BASED APPLICATIONS

#### READING COURSE

1.	VANKADARI KOUSHIK KUMAR	SAI JAGAN MOHAN	APPLICATION OF OPTIMAL CONTROL THEORY IN MODELLING CANCER CHEMOTHERAPY
2.	JANAGAM VIKRAM REDDY	RUCHIKA SHARMA	STUDY AND ANALYSIS OF FEW SELECTED MODERN LITERATURE.
3.	K KALYAN KUMAR	RUCHIKA SHARMA	CRITICAL APPROACHES TO LITERATURE.
4.	MADASTU NAGESH	KIRAN DC	SURVEY ON COMPILER RESOURCE ALLOCATION (REGISTER ALLOCATION) FOR KERNEL ARCHITECTURE.
5.	TRIPTI RAWAL	SANGEETA SHARMA	ADVERTISING AND THE PSYCHOLOGY OF CONSUMERISM
6.	RAMYA SINGH	SUSHILA SHEKHAWAT	CINEMATIC ADAPTATION OF SELECTED NOVELS
7.	KRITI SONI	SANGEETA SHARMA	CREATIVE THINKING
8.	VIPRAV ANAND	UMESH DHYANI	INDIAS STRUGGLE FOR INDEPENDENCE
9.	NEETHA RAJASENA KURUP	DEVIKA	A STUDY OF EVOLVING FEMINISM IN SCIENCE FICTION LITERATURE
10.	ACHAL GUPTA	KUMAR NEERAJ SACHDEV	A DETAILED ANALYSIS OF INDIAN AND WESTERN PHILOSOPHY: SIMILARITIES AND DIFFERENCES
11.	POTANA PRASHANTH	SRIKANTA ROUTROY	STUDY OF INVENTORY CONTROL SYSTEMS IN MANUFACTURING RESOURCE PLANNING

#### STUDY PROJECTS

1.	LODHA DARSHAN SUSHIL	YASHVARDHAN SHARMA	SEMANTIC DATA MODELLING FOR WATER MANAGEMENT SYSTEMS
2.	APOORV UMANG SAXENA	SUNITA SINGHAL	IMPLEMENTING SCHEDULING ALGORITHMS USING GLOBUS TOOLKIT
3.	PRERAK MALL	SUNITA SINGHAL	IMPLEMENTING SCHEDULING ALGORITHMS USING GLOBUS TOOLKIT
4.	SIDHARTH CHATURVEDI	YASHVARDHAN SHARMA	STUDY OF MAS ARCHITECTURE AND ITS APPLICATION TO WEATHER MONITORING SYSTEM.
5.	ABHISHEK SHARMA	PAWAN SHARMA	ARCHITECTURE OF MEDIUM SCALE BLOCKS USING REVERSE LOGIC
6.	KARAN GANDHI	HARI OM BANSAL	STUDY OF SMART METERS
7.	TARANG JAYESH SHAH	DHEERAJ SINGH	GESTURE RECOGNITION USING KINECT
8.	ESHAN BHATIA	G S SESA CHALAPATHI	STUDY AND IMPLEMENTATION OF ARITHMETIC ADDERS.
9.	BHARGAVA KARAN VIVEK	LUCKY SHARAN	HARDWARE DESIGN OF LOAD MOVER
10.	FAIZAN AHEMAD	VINITA TIWARI	STUDY OF MICROPROCESSORS AND ANALYSIS OF THEIR DEVELOPMENT AND DESIGN
11.	ABHISHEK KANODIA	PAWAN SHARMA	ARCHITECTURE OF MEDIUM SCALE BLOCKS USING REVERSE LOGIC

S.NO.	NAME	FACULTY	PROJRCT TITLE
12.	B VIGNESH	G S SESHA CHALAPATHI	STUDY AND IMPLEMENTATION OF ARITHMETIC ADDERS.
13.	TANVI TAPARIA	RAJESH MEHROTRA	DETAILED ANALYSIS OF BIODIESEL ITS VARIOUS METHODS OF PRODUCTION
14.	POTHULA SUNDEEP	PRATIK N SHETH	THEORITICAL STUDY ON PRETREATMENT OF VARIOUS BIOMASSES AVAILABLE
15.	DEBOLINA SARKAR	RAJDEEP CHOWDHURY	MOLECULAR MECHANISMS OF CHEMO-RESISTANCE IN SOLID TUMOR CELLS
16.	NIHIT GUPTA	P CHATTOPADHYAY	AQUEOUS FOAM DEVELOPMENT AND STABILITY
17.	ANANT AGARWAL	SUBHAJIT MAJUMDAR	REMOVAL OF TOXIC METALS FROM INDUSTRIAL WASTE WATER
18.	SHUBHAM MEHTA	SUBHAJIT MAJUMDAR	BIOFILTRATION FOR REMOVAL OF HEAVY METAL IONS FROM INDUSTRIAL WASTEWATER
19.	BHARGAVA SAKET SANJAY	PRATIK N SHETH	COMPUTATIONAL FLUID DYNAMICS APPLIED IN BIOTECHNOLOGY
20.	AYAN SEN	ARVIND KUMAR SHARMA	ANALYSIS OF GREEN ALTERNATIVES TO CURRENT ENERGY DEMANDS OF RAJASTHAN
21.	GYAN PRAKASH VERMA	RAVI KANT MITTAL	USE OF NATURAL FIBER IN IMPROVING SOIL PROPERTIES.
22.	ASHISH PANWAR	RAVI KANT MITTAL	GEOTECHNICAL ASPECTS OF FLYASH AND ITS APPLICATIONS
23.	KONDEPATI LEELA KRISHNA	SHAMSHER B SINGH	DYNAMIC ANALYSIS OF COMPOSITE BEAMS
24.	PENUMARTHI KIRAN	MANOJ KUMAR	FINITE ELEMENT ANALYSIS OF LAYERED REINFORCED CONCRETE BEAMS
25.	MOHIT GUPTA	MANOJ KUMAR	DETERMINATION OF FLEXURAL STRENGTH OF RC BEAMS WITH DIFFERENT STRENGTH CONCRETES IN COMPRESSION AND TENSION ZONE
26.	LAKHANI ELESH YOGESH	SHUVENDU N PATEL	STATIC ANALYSIS OF CONCRETE BEAMS USING FINITE ELEMENT METHOD.
27.	SHIWANI SHARMA	ANUPAM SINGHAL	INTEGRATED WATER MANAGEMENT SYSEM
28.	SHASANKA MISHRA	SHUVENDU N PATEL	DYNAMIC ANALYSIS OF STRUCTURES USING FINITE ELEMENT METHODS.
29.	HARISH KUMAR MULCHANDANI	R GUPTA	ARTIFICIAL NEURAL NETWORK
30.	AKHIL GARG	MANOJ KUMAR	DETERMINATION OF FLEXURAL STRENGTH OF RC BEAMS WITH DIFFERENT STRENGTH CONCRETES IN COMPRESSION AND TENSION ZONE
31.	ANSHUL AGRAWAL	G MUTHUKUMAR	FINITE ELEMENT ANALYSIS OF MULTISTORY STRUCTURES
32.	NAVNEET YADAV	MANOJ KUMAR	DETERMINATION OF FLEXURAL STRENGTH OF RC BEAMS USING VARIOUS GRADES OF CONCRETE IN THE COMPRESSION AND TENSION ZONE
33.	SAMARTH INANI	G MUTHUKUMAR	FINITE ELEMENT ANALYSIS FOR A MULTISTORY STRUCTURE
34.	SIDDHARTH AWASTHI	SHAMSHER B SINGH	DYNAMIC ANALYSIS OF COMPOSITE BEAMS
35.	KARAN ACHARYA	RAVI KANT MITTAL	BEHAVIOUR OF TYRE CHIP REINFORCED SOIL
36.	KAUSTUBH SHEKHAR TANMANE	LUCKY SHARAN	HARDWARE DESIGN OF LOAD MOVER
37.	SIDDHARTH MALHOTRA	NAVNEET GUPTA	STUDY ON PATCH ANTENNAS FOR WIRELESS APPLICATIONS.
38.	SRINIVAS GOPAL B V	NAVNEET GUPTA	MODELING OF RF MEMS SWITCHES FOR RECONFIGURABLE ANTENNA (RAS)

S.NO.	NAME	FACULTY	PROJRCT TITLE
39.	PRIYESH SHUKLA	NAVNEET GUPTA	ELECTROMAGNETIC MODELLING OF RF MEMS SWITCH.
40.	DIGVEER DE	VINITA TIWARI	TECHNOLOGIES INVOLVED IN 4G NETWORKS, ESPECIALLY LTE.
41.	NINAD NAVAL	NAVNEET GUPTA	MODELING OF SPRING CONSTANT AND PULL-IN VOLTAGE FOR RF-MEMS CAPACITIVE SWITCH
42.	BINNANI SUMIT GOVINDLAL	HARI OM BANSAL	STUDY OF SMART HOMES
43.	SUYASH SHRIVASTAVA	NAVNEET GUPTA	STUDY ON ELECTRONIC BEHAVIOUR OF NANOCRYSTALLINE SILICON TFT
44.	MOHIT KUMAR	P SRINIVASAN	MATERIAL SELECTION AND DESIGN OF FRONT AND REAR WHEEL UPRIGHTS FOR USE IN BITS PILANIS FORMULA SAE RACE CAR.
45.	PENDYALA SAI SHASHANK	P SRINIVASAN	FATIGUE ANALYSIS AND PREVENTION OF FAILURE OF SHOCK ABSORBERS IN AUTOMOTIVE VEHICLES
46.	SHREYANSH JAIN	RP PAREEK	ROLE OF MILK IN CAUSATION/PREVENTION OF TYPE-II DIABETES MELITUS
47.	AAKASH UMESH CHANDRA	RP PAREEK	ROLE OF MILK IN CAUSATION/PREVENTION OF TYPE-II DIABETES MELITUS
48.	ADITI BHANDARI	RAJEEV TALIYAN	TO STUDY CARDIOPROTECTIVE EFFECT OF EG6-761 AGAINST HYOCARDIAL-ISCHEMIA REPRIFUSION INJURY
49.	SHALAKA JAYANT VIRKAR	S MURUGESAN	STUDY ON DRUG-DESIGN APPROACHES
50.	KRISHNAMOHAN S RAJA	S MURUGESAN	BASIC APPROACHES TO DRUG DESIGN
51.	AQSA INAYAT	VINITA TIWARI	STUDY OF MICROPROCESSORS AND ANALYSIS OF THEIR DEVELOPMENT AND DESIGN
52.	ANUJ PAHUJA	YASHVARDHAN SHARMA	STUDY OF MAS ARCHITECTURE AND ITS APPLICATION TO WEATHER MONITORING SYSTEM
53.	TUSHIT GAUR	MANJULADEVI V	STUDY OF OPTOELECTRONIC DEVICES
54.	SHIVANGI SINGH	SK VERMA	BIOSENSOR DEVELOPMENT
55.	LUNAWAT SONIYA RAJENDRA	SK VERMA	BIOSENSORS DEVLOPMENT
56.	BHARGAV JHA	SK VERMA	BIOSENSOR DEVELOPMENT.
57.	BHANU KHARBANDA	AK DAS	CHEMOKINES AND CYTOKINES AS IMMUNOMODULATORS IN MALARIA
58.	PRAGYA CHOPRA	PARITOSH SHUKLA	THE CHEMISTRY OF ANTI-CANCER DRUGS THAT INHIBIT SIGNALLING PATHWAYS
59.	PRASHANT TRIPATHI	PRASHANT U MANOHAR	THEORETICAL AND ANALYTICAL STUDY OF SOME ELECTRON CORRELATION METHODS.
60.	PRANAV UTPALLA	PRASHANT U MANOHAR	THEORETICAL AND ANALYTICAL STUDY OF SOME ELECTRON CORRELATION METHODS.
61.	AKSHIT JOHRI	RAJEEV SAKHUJA	MICROWAVE ASSISTED SYNTHESIS OF BENZODIAZEPINES: A LITERATURE REVIEW
62.	KRISHANU PRANAB BATSYA	RAJEEV SAKHUJA	APPLICATION OF MICROWAVE HEATING FOR THE SYNTHESIS OF BENZOTHIAZEPINES AND BENZOAZEPINES
63.	ABHINANDAN SAIN	BHARTI KHUNGAR	A GREENER APPROACH TO COPPER CATALYSED REACTIONS
64.	SANJEED MOHAMMED H SCHAMNAD	S C SIVASUBRAMANIAN	APPLICATION OF MONTE CARLO METHODS IN CHEMISTRY
65.	KAVYA VELISETTI	ANIL KUMAR	IONIC LIQUID AS SOLUBLE SUPPORT IN ORGANIC SYNTHESIS

S.NO.	NAME	FACULTY	PROJRCT TITLE
66.	UPPALA VEERA VENKATA SHRAVAN	S C SIVASUBRAMANIAN	SURFACE PHENOMENA AND ASSOCIATED CHEMISTRY
67.	SAHIL KHATKAR	DINESH KUMAR	MEASURING ENVIRONMENTAL IMPACT OF ECONOMIC DEVELOPMENT
68.	VINAYAK KESARWANI	DINESH KUMAR	GOVERNMENT FUNDING OF THE HEALTHCARE SECTOR AND ITS EFFECT ON THE HEALTH STATUS OF PEOPLE OF A COUNTRY
69.	GARIMA	SHVETANK BHATT	RECENT ADVANCES IN DEPRESSION AND ANXIETY RELATED DISORDERS
70.	ADITYA BHATT	PRABHAT NATH JHA	BIOFUELS, THEIR EXTRACTION AND EFFICIENCY
71.	SARTHAK TIWARI	PRABHAT NATH JHA	STUDY OF BIOLOGICAL FUELS WHICH CAN BE OBTAINED FROM MICROORGANISMS AND PLANTS.
72.	ANURAG PRASAD	PRABHAT NATH JHA	BIO FUELS,THEIR EXTRACTION AND EFFICIENCY.
73.	ANUBHAV DAS	RAJDEEP CHOWDHURY	TUMOUR MICRO-ENVIRONMENT AND DRUG RESISTANCE
74.	ASHUTOSH VISHWAKARMA	SHIBASISH CHOWDHURY	USE OF MONTE-CARLO TECHNIQUE IN PROTEIN STRUCTURE PREDICTION.
75.	PRATEEK JAIN	JITENDRA PANWAR	BIOFUELS- THEIR EFFICIENCY AND EXTRACTION
76.	HARSH LAILER	SHIBASISH CHOWDHURY	USE OF MONTE CARLO TECHNIQUE IN STRUCTURAL DYNAMICS.
77.	SHASHANK PANDEY	RAJESH MEHROTRA	UNDERSTANDING SYNTHETIC ACTIVITY OF LIPASES.
78.	KAUSTUBH SHRIKRISHNA NAWADE	ARSHAD JAVED	GESTURE RECOGNITION AND GAIT ANALYSIS USING MICROSOFT KINECT
79.	MAURYA PANKAJKUMAR HOUSLAPRASAD	MANJULADEVI V	APPLICATIONS OF HOLOGRAPHY
80.	RAJAT SHARMA	MANJULADEVI V	INNOVATION AND APPLICATION OF LASER OPTICS IN AUTOMOBILE MECHANICS AND MILITARY
81.	KSHITIJ SAXENA	MANJULADEVI V	APPLICATIONS OF HOLOGRAPHY
82.	HIMANSHU HANSARIA	MANJULADEVI V	SPECTROSCOPIC STUDIES ON NANOMATERIALS
83.	NAGA RAJA PAIDIMARRI	DIPALLOY DATTA	MATHEMATICAL MODELING AND SIMULATION OF CHEMICAL PROCESSES
84.	SYED RAHEEM	DIPALLOY DATTA	MATHEMATICAL MODELING AND SIMULATION OF CHEMICAL PROCESSES
85.	SARANSH SOLANKI	MEGHNA CHARDE	REDEVELOPMENT OF BITS PILANI CAMPUS BASED ON SUSTAINABLE PRINCIPLES.
86.	AYUSH RAWAT	MEGHNA CHARDE	REDEVELOPMENT OF BITS PILANI CAMPUS BASED ON SUSTAINABLE PRINCIPLES.
87.	DIVYA CHIRANIA	SHASHI	PARTICLE SWARM OPTIMIZATION
88.	DIVYA CHIRANIA	NARESH KUMAR REDDY N	PARTICLE SWARM OPTIMIZATION
89.	PRATIBHA AGRAWAL	SHASHI	PARTICLE SWARM OPTIMIZATION
90.	PRATIBHA AGRAWAL	NARESH KUMAR REDDY N	PARTICLE SWARM OPTIMIZATION

S.NO.	NAME	FACULTY	PROJRCT TITLE
<b>FIRST SEMESTER 2013-2014 (AUGUST 2013 to DECEMBER 2013)</b>			
<b>COMPUTER PROJECTS</b>			
1.	SHREEVAR RASTOGI	B.D.PANT	DESIGN AND FABRICATION OF 2D & 3D MEMS ACCELEROMETERS
2.	NOOPUR	MUKESH KR ROHIL	ENHANCEMENT OF A RULE BASED SYSTEM USING SOFT COMPUTING TECHNIQUES
3.	AVINAV SINGLA	SUNDARESAN RAMAN	CLUSTERING OF PROTEIN MODELS.
4.	GAUTAM NAGPAL	SUNDARESAN RAMAN	CLUSTERING OF PROTEIN MODELS
5.	SURABHI PAHARIA	PRATIK N SHETH	PROCESS DESIGNING OF MULTI-STAGE FLASH EVAPORATOR FOR PURIFYING SALINE WATER
6.	EDARA HEMANTH	K.SOLOMON RAJU	DESIGN AND SIMULATION OF MYOELECTRIC SIGNAL (MES) PROCESSOR TO BE USED IN PROSTHETIC ARM.
7.	REDLAPALLI JAYA SARATH PRABATH	ASMA RANI	INVESTIGATING NEURAL NETWORK TECHNIQUES FOR VARIOUS PATTERN RECOGNITION APPLICATIONS
8.	AMIT CHOWDHARY	J L RAHEJA	ANDROID BASED PATIENT HEALTH MONITORING SYSTEM.
9.	ADESH KUMAR RAO	JP MISRA	DESIGN AND SIMULATION OF STRATEGIES FOR PATTERN FORMATION USING SWARM-BOTS
10.	MEHUL MITTAL	NIKHIL PRAKASH	SIMULATION OF MULTI-COMPONENT DISTILLATION COLUMN USING ASPEN PLUS
11.	RAJAT SHARMA	K HARI BABU	DEVELOPING A SEARCH ALGORITHM USING FUZZY SETS.
12.	RAMPRASAD M NAMBISAN	AMIT KUMAR VERMA	DEVELOPMENT OF A NEW APPLICATION PACKAGE IN MATHEMATICA FOR DIFFERENTIAL EQUATIONS
13.	ANKIT AGGARWAL	NIKHIL PRAKASH	SIMULATION OF MULTI-COMPONENT DISTILLATION COLUMN USING ASPEN PLUS
14.	ANANT BHARGAVA	MANOJ KUMAR	DESIGN OF A MULTI-STOREY FRAMED STRUCTURE
15.	GAUTAM BOTHRA	ARUN KUMAR VAISH	DEVELOPING A BALANCED SCORECARD: AN EMPIRICAL ANALYSIS
16.	HEMANT KUMAR SINGH	NAVIN SINGH	STUDY OF UNZIPPING AND UNFOLDING OF BIO-POLYMERS LIKE DNA, RNA USING MONTE CARLO METHODS
17.	NEERAJ KUMAR JHA	J L RAHEJA	ANDROID BASED PATIENT HEALTH MONITORING SYSTEM.
18.	AKOLEKAR HARSHAL DEEPAK	P SRINIVASAN	OPTIMIZATION OF REHEAT AND REGENERATIVE RANKINE CYCLE PARAMETERS USING MICROSOFT VISUAL STUDIO
19.	DEEPAK SHARMA	MUKESH KR ROHIL	PREDICTION USING AUTOCORRELATION TECHNIQUE:AN IMPLEMENTATION USING VISUAL STUDIO 2012 & C#
20.	POTTI MURTHY YASWANTH	HK MOHANTA	DESIGN OF SOFT SENSOR USING WAVELET NEURAL NETWORK(WNN)
21.	CHILAPPAGARI SUDHEENDRA	NV MURALIDHAR RAO	IMPLEMENTING SPAM FILTERS USING SUPPORT VECTOR MECHANISM
22.	SIDDHARTH SINGH SETHI	ANSHUMAN	DESIGN AND ANALYSIS OF MULTI-STOREYED BUILDINGS.
23.	ANMOL SINGH SUAG	RAKHEE	DEVELOPMENT OF ALGORITHMS FOR CHANNEL ASSIGNMENT IN MULTI-CHANNEL MULTI-RADIO WIRELESS NETWORKS USING GAME THEORY
24.	GAUTAM GOYAL	D BANDYOPADHYAY	UNIVERSAL STRUCTURE PRODUCTION AND GLOBAL OPTIMIZATION OF SMALL SIZED METAL NANOCCLUSERS



S.NO.	NAME	FACULTY	PROJRCT TITLE
25.	AMITVIKRAM DUTTA	AJAY KUMAR PANI	APPLICATION OF NEURAL NETWORK FOR MODELLING AND CONTROL OF DISTILLATION COLUMN
26.	PRASHAM MISHRA	AJAY KUMAR PANI	STUDY OF NON-LINEAR PRINCIPLE COMPONENT ANALYSIS AND ITS APPLICATION IN PROCESS MODELING
27.	RUBAL MITTAL	PRATIK N SHETH	MODELING AND SIMULATION OF PYROLYSIS COLUMN USING FLUENT AND ANSYS
28.	AMAN KUMAR	AJAY KUMAR PANI	APPLICATION OF NUERAL NETWORK FOR MODELLING AND SIMULATION OF DISTILLATION COLUMN
29.	TUSHAR RATHI	K K GUPTA	STUDY AND IMPLEMENTATION OF IMAGE PROCESSING ALGORITHMS
30.	SEHAJDEEP SINGH	AMIT JAIN	SIMULATION STUDIES ON REACTIVE DISTILLATION USING ASPEN PLUS
31.	MAYANK JAIN	UTKARSH MAHESHWARI	STUDY OF THERMODYNAMIC PROPERTY METHODS
32.	NATEKAR NIRANJAN AWADHUT	K K GUPTA	STUDY AND IMPLEMENTATION OF IMAGE PROCESSING ALGORITHMS
33.	VANSHAJ NEHRA	HK MOHANTA	DYNAMIC SIMULATION OF CHEMICAL PLANTS
34.	HIMANSHU POONIA	ARUN KUMAR VAISH	DEVELOPING A BALANCE SCORECARD : AN EMPIRICAL ANALYSIS
35.	SAGAR ARORA	JP MISRA	DESIGN AND SIMULATION STUDIES FOR PATTERN FORMATION USING SWARM BOTS
36.	OLIVE CHAKRABORTY	RAKHEE	DEVELOPMENT OF ALGORITHMS FOR CHANNEL ASSIGNMENT IN MULTI-CHANNEL AND MULTI-RADIO WIRELESS NETWORKS USING GAME THEORY
37.	ADITI CHAUDHARY	NAVNEET GOYAL	DYNAMIC CLASS CLASSIFICATION PROBLEM.
38.	VENKAT ANAND SYSTLA	ANIL K BHATT	COMPUTING AND CALCULATING COUNTRY RISK; UNDERSTANDING RISK-ON AND RISK-OFF PROFILES; UNDERSTANDING ROLE OF SWAPS AND INSURANCES
39.	VISHALA	HARI OM BANSAL	DEVELOPMENT OF POWER OPTIMISATION STRATEGY FOR PLUG-IN HYBRID ELECTRIC VEHICLES.
40.	CHETAN CHOPRA	HARI OM BANSAL	DEVELOPMENT OF POWER OPTIMISATION STRATEGY FOR PLUG-IN HYBRID ELECTRIC VEHICLES.
41.	JANAMANCHI RAJESH	ANU GUPTA	DESIGN OF LOW POWER VLSI CIRCUITS
42.	MUKKA TEJA	ANU GUPTA	DESIGN OF HIGH PERFORMANCE VLSI CIRCUITS.
43.	NEMMARU V BHARGAVA	AJAY KUMAR PANI	COMPARISON OF THE SUBSET SELECTION METHODS FOR DATA-BASED MODELLING AND APPLICATION TO CHEMICAL PROCESSES
44.	VISHAL SINGH CHUNDAWAT	SHUVENDU N PATEL	ANALYSIS OF MULTISTORY BUILDING USING STIFFNESS METHOD AND DESIGN BY STAD-PRO.
45.	RITESH BHATIA	SP VIMAL	IMAGE CLASSIFICATION USING SALIENT FEATURES
46.	LAKSHMI KUMARI	RUCHIKA SHARMA	DEVELOPING WEBSITE FOR TECHNICAL REPORT WRITING
47.	NALIN AGGARWAL	DHIRAJ	USE OF SPARSE DISTRIBUTED REPRESENTATION IN VISUAL ATTENTION PROBLEMS FOR OBJECT TRACKING
48.	MAHIMA RATHORE	DHIRAJ	USE OF SPARSE DISTRIBUTED REPRESENTATION IN VISUAL ATTENTION PROBLEMS FOR OBJECT TRACKING
49.	RIMA HIRENDRASINH RANA	DHIRAJ	USE OF SPARSE DISTRIBUTED REPRESENTATION IN VISUAL ATTENTION PROBLEMS FOR OBJECT TRACKING
50.	ANKITA GUPTA	SHIBASISH CHOWDHURY	USING GRAPH THEORY TO STUDY PROTEIN-PROTEIN INTERACTIONS

S.NO.	NAME	FACULTY	PROJRCT TITLE
51.	KOSANAM SATISH KUMAR REDDY	NV MURALIDHAR RAO	IMPLEMENTING SPAM FILTERS USING SUPPORT VECTOR MECHANISM
52.	DHRUV KUMAR	NAVNEET GOYAL	DISTRIBUTED COMPUTING SOLUTIONS FOR DATA MINING
53.	RAHUL KAPOOR	YASHVARDHAN SHARMA	DESIGNING FRAMEWORK FOR OPINION MINING
54.	M V S SAI RAGHAVENDRA	NAVNEET GOYAL	DYNAMIC CLASS CLASSIFICATION PROBLEM
55.	SONAAL BHANOT	HK MOHANTA	DESIGN OF A MULTI-COMPONENT DISTILLATION COLUMN
56.	AVISHEK SAHA	DILEEP KUMAR GUPTA	ANALYSIS OF MICRO-CHANNEL FLOW IN CAR RADIATORS
57.	ANAMIKA PANDEY	PANKAJ VYAS	DEVELOPING AND IMPLEMENTING AN ALGORITHM FOR OBTAINING CONTROL FLOW GRAPHS FROM UML STATE CHARTS
58.	SHREYA JAIN	PANKAJ VYAS	DEVELOPING AND IMPLEMENTING AN ALGORITHM FOR OBTAINING CONTROL FLOW GRAPHS FROM UML SEQUENCE DIAGRAMS
59.	ADHIRAJ SINGH RATHORE	ANSHUMAN	ANALYSIS AND DESIGN OF MULTI-STOREYED BUILDINGS
60.	SHIVAM MASURIHA	DIPENDU BHUNIA	ANALYSIS OF SHEAR COUPLED WALLS UNDER SEISMIC LOAD
61.	ISHAN SHRIVASTAVA	DIPENDU BHUNIA	ANALYSIS OF COUPLED SHEAR WALLS UNDER SEISMIC LOAD
62.	SAMARTH GUPTA	MANOJ KUMAR	ANALYSIS OF SKEW T-BEAM BRIDGES USING STAAD PRO
63.	MADHAV VARSHNEY	MANOJ KUMAR	ANALYSIS OF SKEW T-BEAM BRIDGES USING STAAD PRO
64.	SHOBHIT TREHAN	J L RAHEJA	COMPUTERISED LIP READING FOR WORD DETECTION
65.	ANURAG RAWAT	PUSHP LATA	DEVELOPING WEB 2.0 INSTRUCTIONAL MATERIAL FOR PERSONALITY DEVELOPMENT OF COLLEGE STUDENTS FROM RURAL BACKGROUND.
66.	SANCHIT GARG	P SRINIVASAN	ECONOMICS AND IMPACT OF THERMAL POWER PLANTS ON WATER, LAND AND AIR IN INDIA
67.	MELLACHERUVU PADMINI	P SRINIVASAN	ECONOMICS AND IMPACT OF THERMAL POWER PLANTS ON WATER, LAND AND AIR IN INDIA
68.	ANMOL AGRAWAL	SUREKHA BHANOT	BIOMEDICAL SIGNAL PROCESSING USING AI TECHNIQUES
69.	TANYA VERMA	SUREKHA BHANOT	BIOMEDICAL SIGNAL PROCESSING USING AI TECHNIQUES
70.	DEBANSHU SINHA	PANKAJ BISWAS	SOLUTION OF NON-LINEAR SYSTEM OF EQUATIONS USING PARALLELIZED COMPUTATION
71.	SOHAIL SHARIFF	VANDANA AGARWAL	SPEAKER RECOGNITION USING NEURAL NETWORK TECHNIQUES
72.	GURU DARSHAN PM	A ANAND KUMAR	VARIOUS DIGITAL FILTER STRUCTURES IMPLEMENTED USING VERILOG HDL
73.	S. SUMANTH	S GURUNARAYANAN	COMPARITIVE STUDY OF MRAM ,MAGNETORESISTIVE RANDOM ACCESS MEMORY, WITH CURRENT MEMORY TECHNOLOGY AND SIMULATION OF MRAM
74.	POLEPEDDI ADITYA	A. S. MANDAL	C IMPLEMENTATION OF EMOTIONAL EXPRESSION RECOGNITION ALGORITHM
75.	ANURAJ JAIN	A. S. MANDAL	C IMPLEMENTATION OF EMOTIONAL EXPRESSION RECOGNITION ALGORITHM
76.	S.PRAMOD	NITIN CHATURVEDI	TECHNIQUES TO MANAGE L2 CACHE FOR CMP.
77.	JAIPREET SINGH	POONAM GOYAL	MULTIMEDIA INFORMATION RETRIEVAL

S.NO.	NAME	FACULTY	PROJRCT TITLE
78.	ANKIT SINGH	D BANDYOPADHYAY	UNIVERSAL STRUCTURE PRODUCTION AND GLOBAL OPTIMIZATION OF SMALL SIZED METAL NANOCLUSTERS
79.	JASKARAN SINGH GROVER	SUREKHA BHANOT	SOLUTION OF INVERSE PROBLEM IN ELECTROMAGNETIC NON-DESTRUCTIVE TESTING USING ANN.
80.	NISHANT MISHRA	NITIN CHATURVEDI	TECHNIQUES TO MANAGE L2 CACHE FOR CMP.
81.	SHIVAM SHARMA	D BANDYOPADHYAY	UNIVERSAL STRUCTURE PREDICTION AND GLOBAL OPTIMIZATION OF SMALL SIZED METAL NANOCLUSTERS
82.	BHAWARTH	ARYA KUMAR	IMPACT OF FDI ON INDIAN RETAIL SECTOR.
83.	JAY BIPIN SHAH	NITIN CHATURVEDI	TECHNIQUES TO MANAGE L2 CACHE FOR CMP
84.	VIJAY SHANKAR SAINI	J P MISRA	DEVELOPMENT OF RE-CONFIGURABLE SOFTWARE APPLICATION.
85.	KHANNAN SUNDAR	K HARI BABU	SEARCH ALGORITHM FOR PARALLEL SYSTEMS
86.	VAIBHAV BIYANI	PRATIK N SHETH	MODELLING AND SIMULATION OF PYROLYSIS CONTROL UNIT USING C PLATFORM
87.	SHWETABH SAMEER	DILEEP KUMAR GUPTA	MODELING AND SIMULATION OF MICRO CHANNEL AIR COOLED HEAT EXCHANGER.
88.	RANABIR MITRA	S MOHAN	IMPLEMENTATION OF COORDINATED RESOURCE MANAGEMENT IN MULTI-CORE PROCESSORS
89.	ANSHU SAINI	ANIL RAI	THE ROLE OF MUSIC IN MEDIA.
90.	ANKITA DUGGAL	PUSHP LATA	USE OF SOCIAL SITES FOR LANGUGAE PEDOLOGY.
91.	YASHOWARDHAN KAUSHIK	M ISHWARA BHAT	ENTRY/EXIT PROGRAM AND DEVELOPMENT IN LIBRARY WEBSITE
92.	PUNIT SHARMA	M ISHWARA BHAT	ENTRY/EXIT PROGRAM AND DEVELOPMENT IN LIBRARY WEBSITE
93.	HEMANT SINGH	RUCHIKA SHARMA	DEVELOPING WEBSITE FOR TECHNICAL REPORT WRITING
94.	ASHISH BHALOTHIA	PUSHP LATA	DESIGNING MULTI-MEDIA MODULES FOR TEACHING INTERVIEW SKILLS TO COLLEGE STUDENTS FOR RURAL BACKGROUND
95.	KAVITA SAINI	PUSHP LATA	DESIGNING MULTI-MEDIA MODULES FOR DEVELOPING SKILLS FOR COLLEGE STUDENTS OF RURAL BACKGROUND
96.	ANKITA DUGGAL	DEVIKA	IMPORTANCE OF LANGAUGE LAB.
97.	PRAVEEN KUMAR SANWARIA	PUSHP LATA	DEVELOPING WEB 2.0 INSTRUCTIONAL MATERIAL FOR PERSONALITY DEVELOPMENT OF COLLEGE STUDENTS FROM RURAL BACKGROUND.
98.	ANIRUDHA S BHAT	NITIN CHATURVEDI	TECHNIQUES TO MANAGE L2 CACHE FOR CMP.
99.	NOOPUR	MUKESH KR ROHIL	ENHANCEMENT OF A RULE BASED SYSTEM USING SOFT COMPUTING TECHNIQUES.

#### STUDY ORIENTED PROJECTS

1.	ABHINAV SINGH	KIRAN DC	REGISTER ALLOCATION ON SHARED MEMORY ON MULTICORE PROCESSORS.
2.	RISHI TIBREWAL	NV MURALIDHAR RAO	STUDY OF THE INFLUENCE OF INFLATION, INVESTMENT, POPULATION AND EMPLOYMENT RATE ON THE PER-CAPITA GDP OF A COUNTRY
3.	KOMMAVARAPU RAGHAVENDRA	SAI JAGAN MOHAN	CRITICAL STUDY ON COMPUTING METHODS FOR DIFFERENT TYPES OF FLOWS
4.	PENUMARTHY PARAMESH BHARADWAJ	JYOTI	SIGNIFICANCE OF R&D FOR INDUSTRIAL GROWTH AND APPROCHES ADOPTED IN STATUS QUO.
5.	NOOPUR	OMVIR CHAUDHRY	INTEGRATION OF FINANCIAL MARKETS

S.NO.	NAME	FACULTY	PROJRCT TITLE
6.	PALAK JOSHI	ARCHANA K K	STUDY OF RECENT ADVANCES IN DEVELOPMENT AND EVALUATION OF COSMETIC PRODUCTS.
7.	ANKIT SRIVASTAVA	BANASRI ROY	COMPARISON OF TITANIUM OXIDE AND ZINC OXIDE ANODES FOR SOLAR CELL APPLICATIONS
8.	VENKAT ANAND SYSTLA	NV MURALIDHAR RAO	GOVERNMENT PENSION AND PENSION FUNDS; ECONOMETRIC MODELLING; STUDYING PATTERNS AND CORRELATIONS OF PRICE MOVEMENT BETWEEN VARIOUS SECURITIES
9.	AMAN KHURANA	MS DASGUPTA	KINEMATIC ANALYSIS OF SUSPENSION SYSTEM FOR STABILITY OF VEHICLES
10.	VINAY KUMAR CHAUBEY	BANASRI ROY	COMPARISON OF TITANIUM OXIDE AND ZINC OXIDE ANODES FOR SOLAR CELL APPLICATIONS.
11.	GAUTAM BOTHRA	GEETILAXMI MOHAPATRA	DEVELOPING ENVIRONMENTAL PERFORMANCE INDEX: A CASE FOR INDIAN STATES
12.	ARUSHAI SHEORAN	AJIT PRATAP SINGH	TREATMENT OF MUNICIPAL WASTE WATER BY CONSTRUCTED WETLANDS
13.	HIMANSHU POONIA	A K GIRI	ROLE OF MACROECONOMIC FACTORS ON STOCK MARKET VOLATILITY
14.	ANURAG KANKANALA	RAKHEE	FREQUENCY OPTIMIZATION TO MAXIMIZE WIRELESS NETWORK THROUGHPUT.
15.	SHLOK SATYAM	DHEERENDRA SINGH	STUDY-ORIENTED PROJECT ON 24 PULSE AND THREE LEVEL CONVERTERS
16.	MANAV GARG	VINOD KUMAR CHAUBEY	OTA BASED ANALOG FILTER DESIGN
17.	SALIL LAHIRI	DEVIKA	INDIAN POLITY & ITS VARIOUS ASPECTS -POLITICAL DYNAMICS, SYSTEM OF GOVERNMENT ETC. A STUDY IN NON FICTION
18.	GODBOLE NIRANJAN SUBODH	RAJNEESH CHOUBISA	STUDYING THE BUYER- SELLER RELATIONSHIP AND DECISION MAKING IN "TEMPORARY"/ UNSTRUCTURED MARKETS
19.	ANKIT AGGARWAL	K HARI BABU	DEVELOPING A SEARCH ALGORITHM FOR P2P OVERLAYS
20.	K. ESHAN SINGH	MAYURI DIGALWAR	STUDY AND IMPLEMENTATION OF REAL TIME SCHEDULING ALGORITHMS
21.	PRANIT SHAH	KIRAN DC	ILP FOR MULTITHREADED MULTICORE ARCHITECTURE
22.	VIBHAV AGARWAL	SRIKANTA ROUTROY	BENCHMARKING MODEL FOR VEGETABLE SUPPLY CHAIN
23.	SWAPNIL PANDEY	SANJAY SINGH	STUDY OF DIFFERENT MOTION DETECTION ALGORITHMS FOR VIDEO SURVEILLANCE APPLICATIONS.
24.	KUNAPAREDDY MOHAN SUDHEER	AJIT PRATAP SINGH	SURFACE WATER QUALITY MODELING WITH SPECIAL REFERENCE TO BOD,NITROGEN AND PATHOGENS
25.	ANANT BHARGAVA	ANUPAM SINGHAL	A STUDY ON HAZARDOUS WASTE MANAGEMENT
26.	SUBRAMANYAM SRUTHI	KIRAN DC	REGISTER ALLOCATION IN MULTI-CORE ARCHITECTURE
27.	AMIT MATHUR	MONALISA MISHRA	SCREENING OF DROSOPHILA MUTANTS HAVING DEFECT IN PHOTORECEPTOR ORGANS
28.	HIMANSHU JAIN	KIRAN DC	REGISTER ALLOCATION IN SHARED MEMORY ON MULTICORE PROCESSORS
29.	REDLAPALLI JAYA SARATH PRABATH	ASMA RANI	STUDY OF VARIOUS ENCRYPTION AND DECRYPTION TECHNIQUES REGARDING NETWORK SECURITY.
30.	INDRAJIT HARIDAS	ANUPAM SINGHAL	DESIGN OF WASTE WATER TREATMENT PLANT FOR NEW ACADEMIC BLOCK
31.	AVINASH KUMAR	JYOTI	TO UNDERSTAND AND ANALYSE THE INTERPLAY BETWEEN FRONT-END AND BACK-END OPERATIONS IN SUPPLY CHAIN MANAGEMENT

S.NO.	NAME	FACULTY	PROJRCT TITLE
32.	ADITYA JOSHI	JYOTI	TO UNDERSTAND AND ANALYSE THE INTERPLAY BETWEEN FRONT-END AND BACK-END OPERATIONS IN SUPPLY CHAIN MANAGEMENT
33.	GAURAV SWAROOP	VINOD KUMAR CHAUBEY	ANALOG FILTER DESIGN AND APPLICATIONS
34.	NIDHI GANDHI	SC BOSE	CIRCUIT SIMULATION USING DOUBLE GATE MOSFET
35.	VATSAL RASTOGI	N MEHALA	ANALYSIS OF SEARCH ENGINE MODEL
36.	ARUSHI PRAKASH	HK MOHANTA	STUDY OF REACTIVE DISTILLATION AND CONTROL
37.	RITIKA CHAUDHURY	RAJESH MATAI	STUDY OF DYNAMIC FACILITY LAYOUT PROBLEM
38.	PRIYANSHU AGARWAL	PRADEEP KR H KESKAR	STUDY OF ALGORITHMS FOR GRAPH THEORY AND THEIR APPLICATIONS
39.	RONAK NAGORI	SACHIN U BELGAMWAR	STRENGTHENING MECHANISMS IN CNT COPPER COMPOSITES
40.	JATIN BANSAL	KULDIP SINGH SANGWAN	INNOVATIVE ECO-DESIGN OF PRODUCTS USING LIFE CYCLE ASSESSMENT TOOLS
41.	PRATEEK SINGHVI	ABHIJIT K DIGALWAR	STUDY OF VALUE STREAM MAPPING IN CONTEXT OF THERMAL POWER PLANTS.
42.	ABHISHEK KUMAR	P CHATTOPADHYAY	FOAM DEVELOPMENT AND MODELING-A CASE STUDY
43.	SHAHADE KETAN GAJANANRAO	JITENDRA S RATHORE	AERODYNAMIC ANALYSIS OF RACING CARS
44.	AKHIL CHATURVEDI	BANASRI ROY	BIOCOMPATIBILITY OF NINITOL AS A BIOMEDICAL MATERIAL:BODY RESPONSE TO IMPLANTS, CORROSION, CARCINOGENICITY AND PREVENTION.
45.	BAJAJ JASH SHAILENDRA	ANIL K BHATT	ENTERPRISE RISK MANAGEMENT IN SOFTWARE FIRMS
46.	ADITYA SISTA	ANIL K BHATT	ENTERPRISE RISK MANAGEMENT IN MANUFACTURING FIRMS
47.	ASEEM DUA	AMOL M R MARATHE	A STUDY OF HYDRODYNAMIC STABILITY ANALYSES
48.	YASHWARDHAN ANAND NARVANE	VINOD KUMAR CHAUBEY	SIMULATION AND ANALYSES OF SMART GRID IN MATLAB
49.	SHIVENDRA SINGH	ARCHANA K K	PATENT REVIEW ON ANTICANCER AND CNS DRUGS.
50.	SUYASH SRIVASTAVA	PRITI JAIN	STUDY OF MULTIPLE TARGET DIRECTED LIGAND
51.	PRAKASH SINGH BHANDARI	RAJAN PANDEY	TESTING EFFICIENT MARKET HYPOTHESIS IN INDIAN STOCK MARKET
52.	M.VENKAT SAI SHANKAR	RAJAN PANDEY	BEHAVIORAL FINANCE AND ITS APPLICATIONS IN VOLATILITY FORECASTING
53.	KOTA PRITHIVI RAJ	SRINIVAS REDDY K	STUDY OF ADDERS, MULTIPLIERS IN DIGITAL CIRCUITS
54.	SADRAS SHIVA KUMAR	SRINIVAS REDDY K	STUDY OF ADDERS MULTIPLIERS IN DIGITAL CIRCUITS
55.	SHAARABH MURARKA	SATYENDRA KR SHARMA	DEVELOPMENT OF QUANTITATIVE MODEL FOR SUPPLY CHAIN RISK
56.	KAUSTAV MAJHI	SANGEETA SHARMA	ACHIEVING POLITICAL MOTIVATIONS THROUGH MASS MEDIA
57.	DEWAL GUPTA	RAJAN PANDEY	COMPARATIVE ANALYSIS OF VOLATILITY FORECASTING MODEL: A REVIEW
58.	HARSH KHANDELWAL	ANUPAM SINGHAL	DESIGN OF WASTE WATER TREATMENT PLANT FOR NEW ACADEMIC BLOCK.
59.	VISHAL AGGARWAL	SACHIN U BELGAMWAR	STRENGHTENING MECHANISM IN CNT COMPOSITES
60.	VVS SOHAN GUDIPATI	CHANDRA SHEKHAR	SIMULATION OF F-POLICY IN QUEUING MODEL.

S.NO.	NAME	FACULTY	PROJRCT TITLE
61.	PAI ANKIT VINODKUMAR	REMICA AGGARWAL	ANALYSING AND REVIEWING A GAME THEORITIC APPROACH TO BID ASK PRICE COMPETITION WITH ASYMMETRIC INFORMATION
62.	TARUN SINGH	BANASRI ROY	ELECTROLYTE SYSTEMS FOR SOLID OXIDE FUEL CELL: MECHANISM, PREPARATION AND DEVELOPMENT
63.	VINOD SINGH	SATYENDRA KR SHARMA	DEVELOPMENT OF QUANTITATIVE MODEL FOR SUPPLY CHAIN RISK.
64.	ROHIT KUMAR	NIKHIL PRAKASH	DETAILED PROCESS AND EQUIPMENT DESIGN OF DISTILLATION COLUMN.
65.	NEERAJ AGARWAL	NIKHIL PRAKASH	DETAILED PROCESS AND EQUIPMENT DESIGN OF DISTILLATION COLUMN
66.	ROHIT JOSHI	GIRISH KANT	STUDY OF AERODYNAMIC AND STRUCTURAL ANALYSIS OF AN AUTOMOTIVE VEHICLE
67.	AAKASH AGARWAL	ARYA KUMAR	ANALYSIS OF FACTORS AFFECTING STOCK PRICE OF COMPANIES (HCL TECH,REI AGRO,GMR INFRA,ROLTA) AND PREDICTION OF THEIR FUTURE PRICE
68.	AMIT CHOWDHARY	VIRENDRA SINGH NIRBAN	IMPACT OF NEW MEDIA TECHNOLOGY USAGE ON THE ACADEMIC COMMUNITY.
69.	RUPAL GUPTA	SMITA KASHIRAMKA	INITIAL PUBLIC OFFERINGS(IPOS) IN INDIA
70.	NEETI POKHARNA	JYOTI	STATISTICAL ANALYSIS OF THE INFLUENCE PROPAGATION IN VIRAL MARKETING COMMUNICATION
71.	APARNA ROY	RAJAN PANDEY	IDENTIFYING STRUCTURAL BREAKS IN FINANCIAL MARKET RETURNS
72.	K ARJUN SAI	RUCHIKA SHARMA	STUDY OF VIRALITY IN ONLINE VIDEOS.
73.	RAVIPALLI PRAVEEN CHAND	RAKHEE	TO STUDY THE APPLICATIONS OF TIME SERIES
74.	GAURAV TYAGI	AJIT PRATAP SINGH	WATER RESOURCES POTENTIAL ASSESSMENT AND DEVELOPMENT USING FUZZY LOGIC
75.	K KALYAN KUMAR	KUMAR NEERAJ SACHDEV	A STUDY OF ARISTOTLE ON ETHICS AND POLITICS
76.	NAIK SHILPA SHESHADRI	SAI JAGAN MOHAN	ANALYSIS OF 2-D PROFILE OF THE BODY PANELS OF A FORMULA STYLE RACE CAR USING FREE FEM++
77.	PRAKHAR PATNI	RAJESH P MISHRA	DEVELOPMENT OF IMPLEMENTATION STEP OF LEAN MANUFACTURING FOR INDIAN INDUSTRY
78.	NARESH RAGHURAMAN	NAVNEET GOYAL	NOSQL AND HADOOP DATABASES - DATABASES TO HANDLE BIG DATA
79.	SIDDHARTH SINGH SETHI	KAMLESH KUMAR	EXCAVATION AND FOUNDATIONS IN SOFT TO VERY SOFT SOILS
80.	SIRIGIRI VIPIN	AJIT PRATAP SINGH	WATER RESOURCE ASSESSMENT AND MANAGEMENT USING FUZZY-MULTICRITERIA APPROACH
81.	SHRUTI INAMDAR	NAVNEET GUPTA	DESIGN AND SIMULATION OF RF MEMS BASED TUNABLE FILTER
82.	LUV SEHRAWAT	RUCHIKA SHARMA	ONLINE MEDIA V/S PRINT MEDIA
83.	DAYESH JAISWAL	ANSHUMAN	DEVELOPMENT OF INTERACTIVE DBMS FOR STRUCTURAL COMPONENTS OF MULTI-STORIED BUILDING.
84.	ABHISHEK CHATURVEDI	ARCHANA K K	NASAL DEVICES FOR DELIVERY OF DRUGS TO THE CNS
85.	SIDHI SHARMA	SATYENDRA KR SHARMA	ANALYSIS OF FINANCIAL DATA FOR FINANCIAL INSTITUTIONS TO LEND LOANS TO THE COMPANIES.
86.	RISHI SAHARIA	GIRISH KANT	STRESS ANALYSIS OF LEAF SPRINGS IN AUTOMOBILES
87.	GARLAPATI JEEVAN	SRINIVAS REDDY K	SYNTHESIS OF PATCHES AND SOUND EFFECTS IN A GUITAR PROCESSOR.

S.NO.	NAME	FACULTY	PROJRCT TITLE
88.	SIDDHANT BHARDWAJ	ARVIND SUDARSHAN	CORPORATE GOVERNANCE AND FINANCIAL MARKETS.
89.	SANKALP SANJAY GILDA	TAPOMOY G SARKAR	APERTURE SYNTHESIS
90.	AAQIB AHMAD	DEVIKA	ANALYTIC STUDY OF EXPLOITATION FILMS
91.	AKOLEKAR HARSHAL DEEPAK	SANTOSH KUMAR	DESIGN OF FOUR POINT BENDING SET UP FOR EXTRACTION OF PIEZORESISTIVE COEFFICIENTS OF THIN FILM RESISTORS
92.	AAKRITI GOEL	A K GIRI	THE ROLE OF FDI IN ECONOMIC GROWTH OF INDIAN ECONOMY
93.	DHRUV KUMAR	SANTOSH KUMAR	A GUI SIMULATION PROGRAM FOR THE SENSITIVITY AND LINEARITY OF PIEZORESISTIVE PRESSURE MICROSENSORS
94.	RAVI ASWANI	NV MURALIDHAR RAO	ANALYTICAL STUDY ON MONETARY POLICY AND EMPLOYMENT IN BRIC NATIONS
95.	VINEET AGARWAL	KULDIP SINGH SANGWAN	CELLULAR MANUFACTURING ( PART FAMILY )
96.	SHAURYA CHANANA	MURALI M PANDEY	RECENT ADVANCES IN PARTICULATE DRUG DELIVERY SYSTEMS
97.	SURBHI KULDEEP SINGH	S GURUNARAYANAN	DESIGN OF HIGH SPEED ALU UNIT
98.	PRATIK BHAGCHANDANI	JITENDRA S RATHORE	SWIMMING FISH SIMULATION USING COMSOL
99.	SHEKHAR SUMAN	JITENDRA S RATHORE	SWIMMING FISH SIMULATION USING COMSOL
100.	NITHIN P SAJI	SP VIMAL	MULTIMEDIA CLASSIFICATION USING MULTIMODAL MACHINE LEARNING
101.	SIDHARTH SANKAR	SMITA KASHIRAMKA	BASSEL REFORMS IN INDIA
102.	KRISHNA SAI CHARAN YANAMANDRA	SATYENDRA KR SHARMA	STUDY TO ENHANCE THE PROBABILITY OF SUCCESS OF A NEW ENTRANT IN THE PHARMACEUTICAL INDUSTRY BY ANALYZING THE FINANCIAL AND MANAGERIAL PERSPECTIVES OF THE INDUSTRY.
103.	SAMEER ANAND	KUMAR NEERAJ SACHDEV	ANALYSIS OF CHANGING IDEOLOGIES AND SOCIAL ORDER IN INDIA
104.	SAUMYA AGRAWAL	YASHVARDHAN SHARMA	DATA DISPENSING APPLICATION USING CLOUD AND MOBILE ENVIRONMENT.
105.	SAGI AVINASH VARMA	KAMLESH KUMAR	MATERIALS AND THEIR APPLICATION IN LANDSCAPE DESIGN
106.	NEEL GIRISH AMONKER	JAYASHREE MAHESH	CROSS CULTURAL STUDY OF DIFFERENT MANAGEMENT STYLES IN COMPANIES BASED IN THE US AND JAPAN
107.	DUSHYANTH SRIHARI GUMMALAM	NV MURALIDHAR RAO	ANALYSIS OF MANUFACTURING ECONOMICS
108.	YERUVA TAJ KUMARI	SRIKANT Y CHARDE (HYD)	STUDIES ON RECENT ADVANCES IN GASTRO RETENTIVE DRUG DELIVERY SYSTEM.
109.	HIMANSHU GUPTA	MANOJ KUMAR	STUDY OF STRUCTURAL BEHAVIOR OF BOX GIRDERS
110.	KUSHAL SINGHAL	ANIL KUMAR SAINI	READ OUT CIRCUITRY FOR BIOMEDICINAL APPLICATIONS
111.	MONICA JAIN	MONALISA MISHRA	SCREENING OF DROSOPHILA MUTANTS HAVING DEFECTS IN PHOTO-RECEPTOR ORGANS.
112.	ARNAB GHOSH	K.SOLOMON RAJU	DESIGN AND IMPLEMENTATION OF FIR FILTER USING VHDL
113.	SUMAN SAURAV GIRI	K.SOLOMON RAJU	DESIGN AND IMPLEMENTATION OF FIR FILTER USING VHDL
114.	ANKUSH GUPTA	BANASRI ROY	NANO CATALYST FOR HYDROGEN PRODUCTION FROM BIOMASS

S.NO.	NAME	FACULTY	PROJCT TITLE
115.	VISHAL SINGH CHUNDAWAT	RAJIV GUPTA	STUDY OF THE NEWLY PROPOSED STAFF QUARTERS IN BITS IN TERMS OF ENERGY EFFICIENCY AND PROPOSING A SUSTAINABLE SOLUTION.
116.	HARSH KUMAR GUPTA	ANIL KUMAR SAINI	READ-OUT CIRCUITRY OF SENSOR IN BIO-MEDICAL APPLICATIONS.
117.	MEGHA SHARMA	BANASRI ROY	NANO CATALYST FOR HYDROGEN PRODUCTION FROM BIOMASS.
118.	RACHIT GARG	KIRAN DC	INTEGRATED REGISTER ALLOCATION AND SCHEDULING FOR MULTI-THREADED MULTI CORE PROCESSOR.
119.	VISHAL KUMAWAT	KIRAN DC	INTEGRATED REGISTER ALLOCATION AND SCHEDULING FOR MULTI-THREADED MULTICORE PROCESSOR
120.	HARSHDEEP SINGH	P SRINIVASAN	STUDY OF MATERIALS BEHAVIOR FOR A SUPERCRITICAL THERMAL POWER PLANT BOILER
121.	AAYUSH JAIN	NIRANJAN SWAIN	A COMPARATIVE STUDY ON FINANCIAL MARKET INTEGERATION
122.	GORTHI BHAVANA DEEPTHI	TAPOMOY G SARKAR	THEORETICAL STUDY OF COSMIC MICROWAVE BACKGROUND ANISOTROPIES
123.	M V S SAI RAGHAVENDRA	A S MANDAL	PAIN RECOGNITION USING BODY GESTURES
124.	KUNAL SALUJA	BIJOY KUMAR RAUT	STUDY OF INDUSTRIAL MANIPULATORS AND ITS PATH PLANNING THROUGH DEFORMABLE OBSTACLES.
125.	JOSHI ROHAN LAXMIKANT	MANOJ KUMAR	ANALYSIS OF BOX-GIRDER DECK IN IN SUSPENSION BRIDGES.
126.	SAMARTH GUPTA	DIPENDU BHUNIA	INVESTIGATION OF THE BEHAVIOR OF STRAW BALE HOUSES SUBJECTED TO EARTHQUAKE LOADS
127.	AVINAV SINGLA	YASHVARDHAN SHARMA	WEATHER MONITORING SYSTEM USING MULTI-AGENTS.
128.	GAUTAM NAGPAL	YASHVARDHAN SHARMA	WEATHER MONITORING SYSTEM USING MULTI-AGENTS
129.	ROHIT RAGHUVANSHI	UTKARSH MAHESHWARI	TO STUDY THE REFORMING PROCESS IN OIL REFINERIES
130.	VODITEL VIRAJ SUNEEL	R GUPTA	DESIGN OF TANKS USED FOR RAINWATER HARVESTING
131.	ABHILEKH BARTWAL	RUCHIKA SHARMA	EFFECT OF ADVERTISING IMAGES ON CONSUMERS
132.	SHALEEN SOHAM DESAI	AJAY KUMAR SAH	A STUDY ON THE FUNCTIONS OF GLYCOPROTEINS.
133.	RAHUL SINGLA	SHARAD SRIVASTAVA	QUALITY ASSURANCE AND RELIABILITY IN RESEARCH DEVELOPMENT.
134.	ANURAG RAWAT	SATYENDRA KR SHARMA	OUTSOURCING TRENDS IN INDIAN INDUSTRY.
135.	SHASHIN YADAV	SHARAD SRIVASTAVA	QUALITY ASSURANCE AND RELIABILITY IN RESEARCH DEVELOPMENT.
136.	SANCHIT GARG	SHARAD SRIVASTAVA	QUALITY ASSURANCE AND RELIABILITY IN RESEARCH DEVELOPMENT
137.	SHAUNAKRAJ DESHPANDE	ARUN KUMAR VAISH	THE EFFECT OF LUCAS PARADOX ON MODERN PORTFOLIO THEORY
138.	SHRUTI SHENBAGAM	AK DAS	ANTIBODY STRUCTURE AND FUNCTION - EXTENSION TO ANTIBODY ENGINEERING
139.	AARUSHI BHARGAVA	JITENDRA S RATHORE	POWERING AND ACTUATION OF NANOROBOTS
140.	SHIWAM MITTAL	GEETILAXMI MOHAPATRA	ANALYSIS OF THE IMPACT OF INTERNATIONAL TRADE AND ECONOMIC GROWTH ON THE AIR QUALITY IN INDIA IN THE POST LIBERALIZATION AFTER 1991



S.NO.	NAME	FACULTY	PROJRCT TITLE
141.	DIVYA JOSHI	VINOD KUMAR CHAUBEY	DESIGN AND DEVELOPMENT OF GPS SIGNAL ANTI-JAMMER USING MATLAB AND FPGA
142.	WASIM SAJID	DEVENDRA KUMAR	NUMERICAL STUDY OF SINGULARLY PERTURBED DELAY DIFFERENTIAL EQUATIONS USING FINITE ELEMENT METHOD (FEM)
143.	SAVARAM LAKSHMI SITA	SUNIL KUMAR DUBEY	ECONOMIC ISSUES IN IPR
144.	AKSHAT BHARGAVA	DHEERENDRA SINGH	STUDY ORIENTED PROJECT ON "24 PULSE & THREE LEVEL CONVERTERS".
145.	S.PRAMOD	VINOD KUMAR CHAUBEY	DESIGN OF RE-CONFIGURABLE SIGMA-DELTA ADCS FOR WIRELESS APPLICATIONS
146.	NAYAN M GOYAL	ARYA KUMAR	IPOS:ISSUES IN PRICE FIXATION AND VALUE TO INVESTORS A COMPARATIVE ANALYSIS
147.	PARTH CHANSORIA	SHARAD SRIVASTAVA	MECHANICAL ASSISTIVE PROSTHETIC DEVICE FOR LEG AMPUTEES
148.	PRAYAS MITTAL	SHARAD SRIVASTAVA	MECHANICAL ASSISTIVE PROSTHETIC DEVICE FOR LEG AMPUTEES
149.	GADA VIVEK	SATYENDRA KR SHARMA	SKU RATIONALISATION.
150.	VARUN MANI KUMAR TUMATI	SATYENDRA KR SHARMA	SERVITISATION OF A COMPANY BASED ON THE PRODUCTS AND SERVICES IT PROVIDES
151.	RAJAT SHARMA	SUNDARESAN RAMAN	AUTOMATIC CLASSIFICATION OF TUMOR CELLS
152.	JOSYULA KRISHNA PRAHASITH	SATYENDRA KR SHARMA	HUMAN RESOURCE MANAGEMENT FOR PROJECTS IN SOFTWARE INDUSTRY
153.	KARAN RAJ SINGH	DHEERENDRA SINGH	STUDY OF SUPERCONDUCTING MACHINES
154.	JAIPREET SINGH	J L RAHEJA	COMPUTERISED LIP READING FOR WORD DETECTION
155.	JAYANTHI ROHINI	RAJAN PANDEY	FORECASTING EXCHANGE RATE VOLATILITY
156.	MEHUL MITTAL	SARVESH SATIJA	PARADOXES IN FINANCE AND ECONOMICS- AN INSIGHT WITH PSYCHOLOGICAL PERSPECTIVE
157.	PIYUSH BINDU	P SRINIVASAN	STUDY OF MATERIALS BEHAVIOUR FOR A SUPERCRITICAL THERMAL POWERPLANT BOILER
158.	ASHISH KUMAR AGRAWAL	JYOTI	INTELLECTUAL PROPERTY RIGHTS : ITS DEVELOPMENT AND MANAGEMENT IN INDIA
159.	TANMOY NAYAK	UTKARSH MAHESHWARI	A COMPARATIVE STUDY BETWEEN FIRE FLOOD AND OTHER AVAILABLE TECHNIQUES USED FOR ENHANCED OIL RECOVERY
160.	ALUGUBELLI SHANTHAN REDDY	MS SONI	STUDY OF AERODYNAMIC ASPECTS OF ORNITHOPTER
161.	ANTONY ABRAHAM	UTKARSH MAHESHWARI	TO STUDY CRACKING PROCESS, ONE OF THE MAJOR PROCESS OF PETROLEUM REFINING
162.	KALIKA SAXENA	ANU GUPTA	STUDY OF PIPELINED ADC(ANALOG TO DIGITAL CONVERTER)
163.	BHAWARTH	A K GIRI	PERFORMANCE OF NON-BANKING FINANCE COMPANIES (NBFC) AND STOCK PRICES VOLATILITY.
164.	APOORV UPRETI	SUNITA SINGHAL	IMPLEMENTATION OF ENHANCED SENDER-INITIATED ALGORITHM
165.	APURV SINGHAL	SUNITA SINGHAL	DYNAMIC JOB SCHEDULING ALGORITHM ON GRID
166.	HUSAIN YASIR MOHSIN	VINOD KUMAR CHAUBEY	DESIGN AND ANALYSIS OF SWITCHED OP-AMP BASED CIRCUITS
167.	AGRIM GUPTA	VINOD KUMAR CHAUBEY	DESIGN AND ANALYSIS OF SWITCHED OP-AMP BASED CIRCUITS
168.	ABHILASH KANDWAL	AMOL M R MARATHE	APPLYING MULTIPLE SKILL ANALYSIS OF CYCLIC PERIODIC STRUCTURES
169.	AMAN PRATAP SINGH RAJVI	GIRISH KANT	STRUCTURAL & AERODYNAMIC ANALYSIS OF CHASSIS OF AN AUTOMOTIVE VEHICLE

S.NO.	NAME	FACULTY	PROJRCT TITLE
170.	TUSHAR NIGOSKAR	ARUN KUMAR VAISH	EQUITY RESEARCH ON INDIAN BANKING SECTOR
171.	SAURABH KATARIA	RAJESH P MISHRA	COST BENEFIT ANALYSIS OF LEAN IMPLEMENTATION
172.	GANGAVARAPU KARTHIK	SHIBASISH CHOWDHURY	BUILDING A DIGITAL GENE NETWORK FOR DISEASE ANALYSIS[SCHIZOPHRENIA]
173.	N HARIPRASAD	A. S. MANDAL	FACE CONTOUR RECONSTRUCTION WITH ARTIFICIAL VISUAL CORTEX USING NATURAL IMAGES
174.	ANUPAM SINGH	SHIBASISH CHOWDHURY	A SIMULATION STUDY ON PROTEIN-LIGAND COMPLEX
175.	KANCHIBHOTLA BHARGAVADUTT	AJIT PRATAP SINGH	SURFACE WATER QUALITY MODELLING WITH SPECIAL REFERENCE TO BOD, NITROGEN AND PATHOGENS.
176.	VISHESH GERA	R GUPTA	ARTIFICIAL NEURAL NETWORKS FOR SPEECH RECOGNITION
177.	ANISH MANNAM	KAMLESH KUMAR	MATERIALS AND THEIR APPLICATION IN LANDSCAPE DESIGN.
178.	PRASANNA ACHAL DATE	RAJESH P MISHRA	SINGLE MACHINE SCHEDULING FOR MAINTENANCE
179.	RAMAKANT VERMA	SATYENDRA KR SHARMA	CONSUMER BUYING BEHAVIOUR FOR MOBILE PHONES.
180.	RAYUDU VENKATA SURESH	A. S. MANDAL	HARDWARE IMPLEMENTATION OF SVM CLASSIFIER
181.	YASHWARDHAN KAUSHIK	DAL BAHADUR SINGH	LABOUR CRISIS(HERO- HONDA)
182.	PIYUSH SOOD	MEGHNA CHARDE	REDESIGNING BHAAS GOVERNMENT SCHOOL USING SOLAR PASSIVE ARCHITECTURE ON AUTOCAD
183.	SAMARTH AGRAWAL	S BALASUBRAMANIAN	MULTIBODY DYNAMICS
184.	NAIK SHILPA SHESHADRI	S BALASUBRAMANIAN	ANALYSIS OF 2-D PROFILE OF THE BODY PANELS OF A FORMULA STYLE RACE CAR USING FREE FEM++
185.	KOMMAVARAPU RAGHAVENDRA	S BALASUBRAMANIAN	CRITICAL STUDY ON COMPUTING METHODS FOR DIFFERENT TYPES OF FLOWS
186.	PUNIT SHARMA	DAL BAHADUR SINGH	LABOUR CRISIS(MARUTI-SUZUKI)
187.	ANIRUDHA S BHAT	J V RAGAVENDRAN	HARDWARE IMPLEMENTATION OF FACE DETECTION ALGORITHMS.
188.	YASHRAJ TRIPATHY	VARUN SINGH	ACTIVE V/S PASSIVE BATTERY CELL BALANCING
189.	KHANNAN SUNDAR	KAPIL GUPTA	DATA ANALYSIS TECHNIQUES
190.	KHANNAN SUNDAR	ADITHYA KUMAR S	DATA ANALYSIS TECHNIQUES
191.	YASH SADHWANI	KAPIL GUPTA	SUPPORT VECTOR MACHINES
192.	YASH SADHWANI	ADITHYA KUMAR S	SUPPORT VECTOR MACHINES
193.	PAI ANKIT VINODKUMAR	DAL BAHADUR SINGH	ANALYSING AND REVIEWING A GAME THEORITIC APPROACH TO BID ASK PRICE COMPETITION WITH ASYMMETRIC INFORMATION
194.	AKSHIT GUPTA	MEGHNA CHARDE	REDESIGNING BHAAS GOVERNMENT SCHOOL USING SOLAR PASSIVE ARCHITECTURE ON AUTOCAD
195.	THOPPILAN ROMAL DEVASSY	KAPIL GUPTA	SUPPORT VECTOR MACHINES
196.	THOPPILAN ROMAL DEVASSY	ADITHYA KUMAR S	SUPPORT VECTOR MACHINES

S.NO.	NAME	FACULTY	PROJRCT TITLE
<b>LAB ORIENTED PROJECTS</b>			
1.	SAGI AVINASH VARMA	SHAMSHER B SINGH	THE STUDY OF FLEXURAL RESPONSE OF FRP STRENGTHENED MASONRY STRUCTURES
2.	SWAPNIL PANDEY	SHASHIKANT SADISTAP	PIC 16/18 BASED RE-CONFIGURABLE DECISION SUPPORT SYSTEM FOR AGRO APPLICATIONS.
3.	KARTIK GUPTA	SACHIN U BELGAMWAR	FINDING DENSITY AND OTHER PROPERTIES OF VARIOUS SAMPLES
4.	SHIVENDRA SINGH	PRITI JAIN	DESIGN AND SYNTHESIS OF NOVEL BACE INHIBITORS
5.	YASHVARDHAN SRIVASTAVA	SRIJATA DEY	STUDY OF GROWTH AND CHARACTERIZATION OF THIN METAL FILMS
6.	SHANKAR ANAND DEKA	BIJOY KUMAR RAUT	STUDY OF KINEMATICS AND DYNAMICS OF HUMAN MOVEMENTS
7.	HIMANSHU SHARA	ANUPAM SINGHAL	BIO REMEDIATION OF PICKLING SLUDGE
8.	KUNAPAREDDY MOHAN SUDHEER	ANUPAM SINGHAL	BIOREMEDIATION OF PICKLING SLUDGE
9.	SARIPALLY ADITYA BHARADWAJ	SUBHASHISH GANGOPADHYAY	GROWTH AND CHARACTERISATION OF THIN METAL FILMS
10.	ADBHUT GUPTA	RAJ KUMAR GUPTA	SYNTHESIS OF THIN FILMS OF GOLD NANOPARTICLES.
11.	ADITYA JOSHI	RAJ KUMAR GUPTA	SYNTHESIS OF THIN FILMS OF GOLD NANOPARTICLES
12.	ARUSHI PRAKASH	SURESH GUPTA	STUDY OF EXTRACTION PROCESSES OF OIL FROM ALGAE FOR BIOFUELS
13.	RITIKA CHAUDHURY	A ANAND KUMAR	STUDY OF SOLAR FED AC TO DC CONVERTERS FOR AN ELECTRICALLY OPERATED HYBRID VEHICLE
14.	JATIN BANSAL	DILEEP KUMAR GUPTA	CFD SIMULATION OF HEAT TRANSFER IN SHELL AND TUBE HEAT EXCHANGER
15.	R ASHA KUMARI	MONALISA MISHRA	STUDYING PRACTICALLY MORPHOGENESIS OF PHOTORECEPTOR ORGAN OF DROSOPHILA.
16.	SHREEVAR RASTOGI	NN SHARMA	FABRICATION AND APPLICATION OF CARBON NANOTUBES FROM CARBON BLACK
17.	M.VENKAT SAI SHANKAR	ABHIJIT R ASATI	DYNAMIC VOLTAGE SCALING BASED ON CIRCUIT LEVEL TIMING SPECULATION USING ERROR DETECTION AND CORRECTION
18.	ALOK PACHOLI	MS SONI	APPLICATION OF THERMAL IMAGING IN LIGHT UNMANNED AERIAL VEHICLES
19.	HARSH KHANDELWAL	SANGHAMITRA KUNDU	GROUNDWATER QUALITY EVALUATION NEAR SURAJGARH THERMAL POWER PLANT
20.	ASHUTOSH GUPTA	RAHUL SINGHAL	FIBER OPTIC PRESSURE SENSOR
21.	ASHWIN SRINATH SUBRAMANIAN	S GURUNARAYANAN	FULL CUSTOM VLSI DESIGN OF AN ADAPTIVE EQUALIZER
22.	TUSHAR RATHI	RAJ KUMAR GUPTA	THIN FILM STUDIES ON DNA
23.	NATEKAR NIRANJAN AWADHUT	RAJ KUMAR GUPTA	THIN FILM STUDIES ON DNA
24.	KOTHARU ANIL PRASAD	SURESH GUPTA	REMOVAL OF ARSENIC FROM WASTE WATER USING LOW COST ADSORBENTS
25.	PRATIK KUMAR	SUREKHA BHANOT	CONTROL AND IDENTIFICATION OF PH NEUTRALIZATION SYSTEM USING ARTIFICIAL INTELLIGENCE TECHNIQUES
26.	HARSH NAMBIAR	SANGHAMITRA KUNDU	IMMOBILIZATION OF HEAVY METALS IN SURATGARH JPP USING FLY ASH
27.	YUDHAJEET DASGUPTA	VISHNU SRIVASTAVA	ANALYSIS OF SPACE TWTS TO BE USED IN SATELLITE COMMUNICATION

S.NO.	NAME	FACULTY	PROJRCT TITLE
28.	SUMEET GUPTA	SANGHAMITRA KUNDU	ANALYSIS OF WATER FOR HEAVY METALS IN SURATGARH TPP
29.	SIRIGIRI VIPIN	RAJIV GUPTA	ANALYSIS OF PASSIVE BUILDING USING FIELD MEASUREMENTS AND TRNSYS
30.	PRAYAS MITTAL	MS DASGUPTA	ROPE CLIMBING BOT TO INSPECT SUSPENSION BRIDGE AND MINE ELEVATOR SHAFT CABLES
31.	DAYESH JAISWAL	SHAMSHER B SINGH	EXPERIMENTAL STUDY ON ECC REINFORCED MASONARY STRUCTURES
32.	SOURABH JAIN	MS DASGUPTA	ROPE CLIMBING BOT TO INSPECT SUSPENSION BRIDGE CABLES AND MINE ELEVATOR SHAFTS
33.	ABHILEKH BARTWAL	AJEET KUMAR DHAKAR	EFFICIENT VARIABLE FREQUENCY DRIVE
34.	HARSHIT GUPTA	SAUMI RAY	THE STUDY, CHARACTERIZING AND ANALYSIS OF CATALYTIC PROCESS THROUGH ENCAPSULATION OF METAL COMPLEXES.
35.	VINIT KUMAR BANSAL	SUREKHA BHANOT	CONTROL AND IDENTIFICATION OF PH NEUTRALISATION SYSTEM USING ARTIFICIAL INTELLIGENCE TECHNIQUES
36.	SHREYA INAMDAR	NAVNEET GOYAL	DISTRIBUTED COMPUTING SOLUTIONS FOR DATA MINING
37.	RAMPRASAD M NAMBISAN	SANTOSH KUMAR	DESIGN AND SIMULATION OF A MEMS PRESSURE SENSOR
38.	HATIM MANSOOR GANDHI	JITENDRA S RATHORE	EXPERIMENTAL ANALYSIS OF FLAGELLAR HYDRODYNAMICS.
39.	YERUVA TAJ KUMARI	MURALI M PANDEY	DISSOLUTION ENHANCEMENT OF FELODIPINE BY NANOCRYSTAL TECHNOLOGY.
40.	AVISHEK SAHA	JITENDRA S RATHORE	FLOW OF FLAGELLA IN LOW REYNOLDSS NUMBER FLUID
41.	HIMANSHU GUPTA	ANUPAM SINGHAL	GROUND WATER QUALITY TESTING FOR VARIOUS PARTS OF PILANI TOWN
42.	NEHA JAIN	AKBAR	NAVIGATION SCHEME FOR AUTONOMOUS UNDERWATER VEHICLE
43.	SIDDHARTHA JAIN	SWATI KESKAR	REAL TIME WATER MANAGEMENT USING MICRO-CONTROLLER
44.	PRATIK ANAND	SWATI KESKAR	REAL TIME WATER MANAGEMENT USING MICRO-CONTROLLER
45.	ARNAB GHOSH	ABHIJIT R ASATI	STUDY OF CORDIC ALGORITHM AND IMPLEMENTATION USING VHDL AND CADENCE
46.	SHRUTI SHENBAGAM	SHILPI GARG	TYPING OF PLASMODIUM VIVAX ISOLATES FROM BIKANER USING GENETIC MARKERS
47.	JOSYULA KRISHNA PRAHASITH	GEETHA B	DIGITAL DOCUMENTATION OF CINEMATOGRAPHY AND PHOTOGRAPHY TECHNIQUES IN THE FORM OF AN INTERACTIVE APPLICATION.
48.	KALIKA SAXENA	AKBAR	PITCH RATE CONTROL OF AUTONOMOUR UNDERWATER VEHICLE
49.	ISHAN GUPTA	SHASHIKANT SADISTAP	PIC 16/18 BASED RE-CONFIGURABLE DECISION SUPPORT SYSTEM FOR AGRO AGRICULTURE
50.	HUSAIN YASIR MOHSIN	SC BOSE	INTERFACING AND SIGNAL CONDITIONING CIRCUIT FOR ACCELEROMETER
51.	NISHANT MISHRA	SC BOSE	INTERFACING AND SIGNAL CONDITIONING CIRCUIT FOR ACCELEROMETER
52.	JAY BIPIN SHAH	SC BOSE	INTERFACING AND SIGNAL CONDITIONING CIRCUIT FOR ACCELEROMETER
53.	AAKASH MODI	G RAJAHARI	ECG SIGNAL CONDITIONING AND PROCESSING
54.	AGRIM GUPTA	G RAJAHARI	ECG SIGNAL CONDITIONING AND PROCESSING
55.	VINTI ARORA	JITENDRA PANWAR	ASSESSMENT OF AMF DIVERSITY IN ARID SOILS

S.NO.	NAME	FACULTY	PROJRCT TITLE
56.	DIVYA JOSHI	AKBAR	PITCH RATE CONTROL OF AUTONOMOUS UNDERWATER VEHICLE
57.	WASIM SAJID	DHEERENDRA SINGH	IMPLEMENTATION OF SOLAR ENERGY FED DC TO DC CONVERTER FOR DC DRIVES
58.	SANCHIT JAIN	PRIYA C SANDE	EXTRACTION OF BIO DIESEL FROM WASTE COOKING OIL AND ITS CHARACTERISATION
59.	GADDE PAVAN KUMAR	DHEERENDRA SINGH	IMPLEMENTATION OF SOLAR ENERGY FED DC TO DC CONVERTER FOR DC DRIVES
60.	PARTH CHANSORIA	MS DASGUPTA	SIMULATION OF WELDING PROCESSES USING FINITE ELEMENT MODELLING TECHNIQUE
61.	GADA VIVEK	KAMLESH KUMAR	SHEAR STRENGTH CHARACTERSTICS OF RANDOMLY DISTRIBUTED COCONUT FIBRE REINFORCED LOCAL SOIL.
62.	NEHA GUPTA	RAJ KUMAR GUPTA	INTERACTION OF DNA WITH NANOPARTICLES
63.	VAIBHAV GREWAL	SRINIVAS REDDY K	MATLAB-BASED GENERATOR FOR STAFF NOTATION AND MUSIC
64.	ATUL KUMAR SAINI	DEVIKA	DESIGNING AND DEVELOPING OF LANGUAGES LABORATORY WITH THE HELP OF MVC(MODEL VIEW CONTROLLER) 2.0. VISUAL STUDIO 2010, WINDOWS SERVER 2003 AND ASP.NET.
65.	SAHIL MEHTA	ANSHUMAN DALVI	FABRICATION OF DIFFERENTIAL THERMAL ANALYSER.
66.	KSHITIJ DAWAR	SUBIT KUMAR SAHA	STUDY ON MIXED MICELLIZATION BEHAVIOR OF CATIONIC GEMINI SURFACTANTS WITH CONVENTIONAL SURFACTANTS.
67.	ANSHUL	R GUPTA	STUDY OF THE RESPONSE OF SPIDER-WEB STRUCTURE UNDER VARIOUS LOADS.
68.	NALIN AGGARWAL	S GURUNARAYANAN	DESIGN OF HIGH SPEED PARALLEL MULTIPLIER FOR DSP APPLICATIONS.
69.	RIMA HIRENDRASINH RANA	PAWAN SHARMA	FRONT END BASED MEMORY DESIGNING WITH TESTABILITY FEATURE USING VAMS
70.	MAHIMA RATHORE	PAWAN SHARMA	FRONT END BASED MEMORY DESIGNING WITH TESTABILITY FEATURE USING VAMS
71.	SANKET BAHALKAR	PAWAN SHARMA	DESIGN OF CPU USING HDL TOOLS
72.	V.HARIHARASUDHAN	S GURUNARAYANAN	FULL CUSTOM VLSI DESIGN OF AN ADAPTIVE EQUALIZER
73.	ANUPAM SINGH	S MURUGESAN	DESIGN AND SYNTHESIS OF NOVEL HIV-1 RT INHIBITORS
74.	SUGGU PANDU RANGA RAO GUPTA	SUNIL KUMAR DUBEY	ANALYTICAL AND BIO-ANALYTICAL METHOD DEVELOPMENT AND VALIDATION OF THE CANDIDATE DRUG.
75.	KANCHIBHOTLA BHARGAVADUTT	SANGHAMITRA KUNDU	IMMOBILIZATION OF HEAVY METALS FROM KHETRI COPPER MINE TAILING
76.	ANISH MANNAM	SHAMSHER B SINGH	THE STUDY ON FLEXUAL RESPONSE OF FRP STRENGTHENED MASONRY STRUCTURES.
77.	YASHA BHARADWAJ	PRITI JAIN	DESIGN AND SYNTHESIS OF NOVEL BACE INHIBITORS
78.	POTTI MURTHY YASWANTH	DIPALLOY DATTA	REACTIVE EXTRACTION OF PHENOLIC COMPOUNDS USING PHOSPHOROUS BASED EXTRACTANTS
79.	SHRIYANS BHATNAGAR	SHASHIKANT SADISTAP	PIC 16/18 BASED RE-CONFIGURABLE DECISION SUPPORT SYSTEM FOR AGRO AGRICULTURE
80.	KRIKTIKA MANDAD	DEVIKA	DESIGNING AND DEVELOPING OF LANGUAGES LABORATORY WITH THE HELP OF MVC (MODEL VIEW CONTROLLER) 2.0, VISUAL STUDIO 2010, WINDOWS SERVER 2003 AND ASP.NET.

S.NO.	NAME	FACULTY	PROJRCT TITLE
<b>SPECIAL PROJECTS</b>			
1.	VODITEL VIRAJ SUNEEL	MANOJ KUMAR	ANALYSIS OF TENSEGRITY BASED SPACE STRUCTURES AND THEIR APPLICATIONS IN BRIDGES
2.	SALIL LAHIRI	NV MURALIDHAR RAO	AN EXPLORATORY STUDY ON SOME ASPECTS OF INDIAN AGRICULTURE
3.	YASHWARDHAN ANAND NARVANE	K.SOLOMON RAJU	DEVELOPMENT OF WIRELESS SENSOR NETWORKS (WSN) FOR APPLICATION IN SMART GRIDS
4.	ASEEM DUA	ABHIJIT K DIGALWAR	ANALYSES OF EFFECT OF HEAT TRANSFER IN CASTING PROCESS
5.	CHETAN CHOPRA	P SRINIVASAN	OPTIMIZATION OF DESIGN PARAMETERS FOR SINGLE CAVITY GRAVITY DIE CASTING FOR ALLOY WHEEL.
6.	VISHALA	P SRINIVASAN	OPTIMIZATION OF DESIGN PARAMETERS FOR SINGLE CAVITY GRAVITY DIE CASTING FOR ALLOY WHEEL.
7.	PRASANNA ACHAL DATE	ABHIJIT K DIGALWAR	QUANTITATIVE ASSESSMENT OF A LEAN MANUFACTURING SYSTEM
<b>STUDY PROJECTS</b>			
1.	MALANI ROHIT MAHESH	A K GIRI	THE IMPACT OF EXCHANGE RATE VOLATILITY ON ARBITRAGE POTENTIAL AND FOREIGN INVESTMENT GAINS.
2.	DIVYANSHU JAIN	A K GIRI	EMPIRICAL TEST ON MONETARY TRANSMISSION MECHANISM OF INDIA
3.	DIVYANSHU NARANG	A K GIRI	A TIME SERIES ANALYSIS OF THE ROLE OF EXPORTS IN INDIAS ECONOMIC GROWTH
4.	CHIRAG BANSAL	A K GIRI	FINANCIAL GROWTH AND ITS IMPACT ON INCOME INEQUALITY IN INDIA
5.	RISHAB KALRA	A S MANDAL	MODELLING THE SIMPLE CELLS RECEPTIVE FIELDS USING NATURAL IMAGES IN VISUAL CORTEX AREA 1.
6.	KUNAL GULIANI	A S MANDAL	MODELING THE SIMPLE CELLS RECEPTIVE FIELDS USING NATURAL IMAGES IN VISUAL CORTEX AREA1
7.	MUKUL BHUTANI	A S MANDAL	FACE CONTOUR RECONSTRUCTION WITH ARTIFICIAL VISUAL CORTEX USING NATURAL IMAGES
8.	MANISH SINGH	ABHIJIT K DIGALWAR	APPLICATION OF TOTAL QUALITY MANAGEMENT IN MANUFACTURING SECTOR OF INDIA
9.	NIKUNJ AGARWAL	ABHIJIT K DIGALWAR	APPLICATION OF TOTAL QUALITY MANAGEMENT IN ENERGY SECTOR.
10.	ANOOP KUMAR SHUKLA	ABHIJIT K DIGALWAR	APPLICATION OF TOTAL QUALITY MANAGEMENT IN THE INDIAN MSME (MICRO SMALL AND MEDIUM ENTERPRISES)
11.	NIKHIL MOTIANI	ABHIJIT R ASATI	BIOMETRIC ANALYSIS USING MATLAB/C
12.	NAMAN MAHESHWARI	ABHIJIT R ASATI	BIOMETRIC ANALYSIS USING MATLAB/C
13.	KARAN KABIR SINGH	AJIT PRATAP SINGH	WATER RESOURCE ASSESSMENT AND MANAGEMENT USING FUZZY-MULTICRITERIA APPROACH
14.	ARPIT MALHOTRA	AK DAS	EFFECT OF ELECTROMAGNETIC AND PARTICLE RADIATIONS ON DIFFERENT TYPES OF LIFE FORMS
15.	TOL KOUSTUBH MANGESH	AKBAR	DESIGN AND SIMULATION OF MOVING AVERAGE FILTER USING MATLAB SIMULATION
16.	CHHABLANI CHIRAG	AKBAR	BUTTER WORTH DIGITAL FILTER.
17.	RAJESH KUMAR VIJAYVARGIYA	AKBAR	DESIGN AND SIMULATION OF KALMAN FILTER USING MATLAB SIMULATION.
18.	SRIKAR AREKATLA	AMIT JAIN	EXPERIMENTAL STUDY AND ANALYSIS OF REACTIVE DISTILLATION.
19.	SAKET SHARMA	AMIT JAIN	STUDY AND ANALYSIS OF REACTIVE DISTILLATION

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20.	SURYA KESHUB	AMIT JAIN	STUDY AND ANALYSIS OF REACTIVE DISTILLATION
21.	SHREYAS SANGHVI	AMIT JAIN	EXPERIMENTAL ANALYSIS OF REACTIVE DISTILLATION.
22.	MUNDHADA VYANKATESH MANOJ	AMIT KUMAR VERMA	ADVANCED COMPLEX ANALYSIS
23.	MANTINDER JIT SINGH	AMIT KUMAR VERMA	ADVANCED COMPLEX ANALYSIS
24.	DIVYANSHU JAIN	AMOL M R MARATHE	ORBITAL MECHANICS/ASTRODYNAMICS
25.	BANDIKATLA PUNEETH	AMOL M R MARATHE	MULTI-BODY DYNAMICS APPROACH TO VEHICLE DYNAMICS
26.	KOPPISETTI V V S N CHAMUNDESWARI	ANIL K BHATT	COMPARING INDIAN HEALTH INSURANCE WITH THAT OF UNITED STATES
27.	SHIWANI SHARMA	ANSHUMAN	ANALYSIS AND DESIGN OF MULTI-STOREYED BUILDINGS
28.	SHUBHAM AGRAWAL	ARCHANA K K	BARRIERS TO CNS DRUG DELIVERY
29.	JAYANT AGARWAL	ARCHANA K K	SOLID LIPID NANOPARTICLES
30.	MAYANK GROVER	ARUN KUMAR JALAN	REVIEW ON FINDING THE DAMPING AND STIFFNESS OF ROLLER BEARINGS
31.	RITESH BATRA	ARUN KUMAR JALAN	REVIEW ON FINDING THE DAMPING AND STIFFNESS OF ROLLER BEARINGS
32.	V KAUSHIK RAJ	ARVIND KUMAR SHARMA	STUDY OF ADSORPTION AS A WASTEWATER TREATMENT PROCESS
33.	CARUNA BHAT	ARYA KUMAR	ECONOMETRIC ANALYSIS OF THE VARIABLES ASSOCIATED WITH FDI INFLOWS INTO INDIA
34.	RISHI KUMAR	ASHISH MISHRA	HIGH LEVEL SYNTHESIS USING VINADO/CATAPULT.
35.	HARSHIT KISHOR MEHTA	ASHISH MISHRA	DEVELOPMENT OF ALGORITHM FOR EMPTY SPACE AND COST FOR FPGA BASED SYSTEM.
36.	NAVDEEP BAJAJ	ASHISH MISHRA	DEVICE DRIVER DEVELOPMENT USING LEON PLATFORM ON FPGAS
37.	ADITYA PRAKASH	ASHISH MISHRA	COMPARISON OF SIMULATED ANNEALING AND ALGORITHM FOR GRAPH PARTITIONING .
38.	VIPUL	ASHISH RUNTHALA	IMPROVING THE PROTEIN MODEL THROUGH GENETIC CROSSEOVERS
39.	AAYUSH AGGARWAL	ASHISH RUNTHALA	HARNESSING THE BEST FROM STRUCTURE AND SEQUENCES OF PROTEINS USING HMM
40.	ASHUTOSH VISHWAKARMA	ASHISH RUNTHALA	IMPROVING THE PROTEIN MODELS THROUGH GENETIC CROSSOVER
41.	KONKAMALLA SACHIN	ASMA RANI	DATA PROVENANCE
42.	G SHARAT CHANDRA	ASMA RANI	DATA PROVENANCE
43.	SABBINENI NAVNEET	ASMA RANI	MEASUREMENT OF SECURITY LEVELS IN INFORMATION SYSTEMS USING ANP APPROACH.
44.	ABHINAV KUMAR	ASMA RANI	MEASUREMENT OF SECURITY LEVEL IN INFORMATION SYSTEMS USING ANP APPROACH
45.	ROSHAN MISHRA	BANASRI ROY	METAL RELEASE FROM TITANIUM RELATED BIO-MEDICAL IMPLANTS IN BODILY ENVIRONMENT:TOXICITY GENERATION,PREVENTION AND RELATED APPLICATIONS
46.	THOMBRE MANDAR NITIN	BANASRI ROY	METAL RELEASE OF TITANIUM RELATED BIO-MEDICAL IMPLANTS IN BODILY ENVIRONMENT: TOXICITY GENERATION, PREVENTION AND RELATED APPLICATIONS.

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47.	SINGH ANMOL KARMAVIR	BANASRI ROY	ROLE OF NANOCATALYSTS IN PETROLEUM INDUSTRY: PAST, PRESENT AND FUTURE APPLICATIONS AND MECHANISM STUDY.
48.	SAKSHI MARKHEDKAR	BHARTI KHUNGAR	TO STUDY PRINCIPLES AND APPLICATIONS OF DIFFERENT CHEMICAL SENSORS.
49.	KSHITIJ AGARWAL	CHAMPAK BARAN DAS	FOUNDATIONS OF QUANTUM MECHANICS
50.	KRUTI PRANAV KHAROD	CHAMPAK BARAN DAS	MAGNETIC CONFINEMENT IN NUCLEAR FUSION ENERGY
51.	AMBUJ MEHRA	CHAMPAK BARAN DAS	NUCLEAR PHYSICS WITH RIA
52.	DIVYA JANGIR	CHANDRA SHEKHAR	STUDY OF FUZZY CONTROL OF MULTI-SERVER QUEUING SYSTEM
53.	JAYAT ROHIL	CHANDRA SHEKHAR	TRANSIENT ANALYSIS OF MULTI-TASKING SERVERS.
54.	ATUL MITTAL	CHANDRA SHEKHAR	STUDY OF FUZZY CONTROL OF MULTI-SERVER QUEUING SYSTEM
55.	AKASH PARAKRAM SINGH	CHANDRA SHEKHAR	TRANSIENT ANALYSIS OF MULTI-TASKING SERVERS.
56.	AKSHAT SINGHAL	D D PANT	DYE SYNTHESIZED SEMICONDUCTING NANOPARTICLES
57.	VAIBHAV MANCHANDA	D D PANT	FLUORESCENCE QUENCHING.
58.	BHASKAR SINGHAL	D D PANT	DYE SYNTHESIZED META NANO PARTICLES
59.	ARMANJEET SINGH	D D PANT	FLUORESCENCE QUENCHING.
60.	AGAM GOYAL	DEVENDRA KUMAR	NUMERICAL SOLUTION OF SINGULARLY PERTURBED BOUNDARY VALUE PROBLEMS USING FINITE ELEMENT METHOD.
61.	JAI PARKASH	DEVENDRA KUMAR	NUMERICAL SOLUTION OF SINGULARLY PERTURBED BOUNDARY VALUE PROBLEMS USING FINITE ELEMENT METHOD.
62.	S ASHWATH BALAJE	DEVENDRA KUMAR	IMPLEMENTATION OF FINITE ELEMENT METHOD(FEM) TO ORDINARY DIFFERENTIAL EQUATIONS(ODES) WHOSE ASYMPTOTIC SOLUTIONS DO NOT EXIST.
63.	SHAIENDRA SHARMA	DIPENDU BHUNIA	STATIC AND DYNAMIC ANALYSIS OF TRUSS STRUCTURES
64.	SHUBIT MINOCHA	DIPENDU BHUNIA	A STUDY ON TUNED MASS DAMPER
65.	MANAS LOHANI	DIPENDU BHUNIA	EARTHQUAKE RESISTANT RCC STRUCTURES.
66.	SHUBHAM AGARWAL	G MUTHUKUMAR	DESIGN OF RESIDENTIAL COLONY OF 75 DWELLING UNITS IN AGRA
67.	ARMAAN GUPTA	G MUTHUKUMAR	SITE SPECIFIC SEISMIC DESIGN PARAMETERS OF PARTICULAR REGION.
68.	SUDIP KUNDA	G MUTHUKUMAR	SITE SPECIFIC SEISMIC DESIGN IN JAIPUR REGION
69.	NAMAN	G MUTHUKUMAR	DEVELOPMENT OF SITE SPECIFIC SEISMIC DESIGN OF JAIPUR, RAJASTHAN
70.	VISAL DATTA RAMISETTI	GEETHA B	SERIES OF DOCUMENTATION ON VARIOUS CINEMATIC TIPS AND TRICKS
71.	ABHISHEK SHARMA	HARI OM BANSAL	DIAGNOSIS OF FAULT ANALYSIS IN ELECTRICAL MACHINES.
72.	NIDHI AGARWAL	HARI OM BANSAL	MAXIMUM POWERPOINT TRACKING OF PHOTO-VOLTAIC SOLAR SYSTEM
73.	ARVIND BISWAL	HARI OM BANSAL	STUDY OF WIND OPERATED ENERGY SYSTEM
74.	ARPIT GUPTA	HARI OM BANSAL	MAXIMUM POWER POINT TRACKING OF PHOTO-VOLTAIC SOLAR SYSTEMS
75.	TANUJ SEN	HARI OM BANSAL	STUDY OF WATER OPERATED ENERGY SYSTEMS
76.	AISHWARYA	INDRESH KUMAR	ORGANOCATALYSIS
77.	VENKTESH	JAVID ALI	A STUDY ON MEASURE THEORY ON ABSTRACT SPACES



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78.	RASHI MATHUR	JITENDRA PANWAR	GLOMALIN: AN ARBUSCULAR MYCORRHIZAL FUNGAL PROTEIN
79.	MUNOT PRASANNA MANOJ	KULDIP SINGH SANGWAN	FINITE ELEMENT ANALYSIS OF METAL CUTTING PROCESS.
80.	AMULYA SRIVASTAVA	LUCKY SHARAN	MODULATION TECHNIQUES FOR DWDM NETWORKS
81.	VAIBHAV MADANGOPAL AGRAWAL	LUCKY SHARAN	CHARACTERIZATION AND MODELLING OF NON-LINEAR EFFECTS IN HIGH SPEED WDM(WAVELENGTH DIVISION MULTIPLEXING) SYSTEM.
82.	SUJAY N V	LUCKY SHARAN	TO STUDY OPTICAL MODULATION TECHNIQUES FOR DWDM SYSTEMS AND ALSO THE NON-LINEAR EFFECTS IN OPTICAL FIBERS.
83.	AKSHAY G. SHANBHAG	LUCKY SHARAN	SIMULATION AND MODELLING OF NON-LINEAR EFFECTS AND COMPARISON OF MODULATION FORMATS FOR HIGH BIT-RATE DWDM SYSTEM
84.	T M DIVYA	MADHUSHREE SARKAR	TO ANALYZE THE SUPRAMOLECULAR ASSEMBLY OF PYRIDYL BASED ORGANIC MOLECULES AND TO DESIGN THEIR METAL ORGANIC FRAMEWORKS.
85.	JAGRITI MADAN	MAYURI DIGALWAR	INTEL ARCHITECTURE
86.	MONICA TARE	MAYURI DIGALWAR	STUDY OF ISA AND ORGANIZATION OF ARM ARCHITECTURE.
87.	SRISHTI BAJORIA	MAYURI DIGALWAR	INTEL ARCHITECTURE
88.	SOLANKI PREM KISHORE	MS DASGUPTA	WELDING SIMULATION IN FINITE ELEMENT ANALYSIS PROGRAM
89.	MEHTA PARAS YOGESHKUMAR	MS DASGUPTA	STUDY OF SOME AESTHETIC ASPECTS OF PRODUCT DESIGN
90.	DEEPAK THAKUR	MURALI P	MULTICASTING, MULTICHANNEL ROUTING ALGORITHM ON MOBILE AD-HOC NETWORK
91.	ASHWINI POKLE	MURALI P	ROUTING ALGORITHMS IN MULTI-RADIO LOW-MOBILE ADHOC NETWORKS
92.	SHRUTI GUPTA	MURALI P	ROUTING ALGORITHMS IN MULTI-RADIO LOW MOBILITY AD-HOC NETWORKS
93.	POOJA GARG	N MEHALA	BROAD TOPIC INTENTION
94.	MANSI GUPTA	N MEHALA	BROAD TOPIC INTENTION
95.	RITURAJ RAMAN	NAVNEET GUPTA	A MICROWAVE DIELECTRIC MATERIAL FOR MICROSTRIP PATCH ANTENNA SUBSTRATE
96.	AJAY SINGHVI	NAVNEET GUPTA	TO STUDY THE ELECTRONIC BEHAVIOR OF NANO-CRYSTALLINE SILICON THIN FILM TRANSISTORS.
97.	ASHWIN R	NAVNEET GUPTA	ELECTROMAGNETIC MODELLING OF RF-MEMS SWITCHES
98.	ISHAN MOHAMMED B A	NAVNEET UPADHYAY	SPEECH COMPRESSION TECHNIQUES
99.	PRAKHAR GUPTA	NIKHIL PRAKASH	STUDIES ON METALLOCENE CATALYZED OLEFIN POLYMERIZATION AND PRODUCTS
100.	ARUSHEE GARG	NIKHIL PRAKASH	STUDY OF CHEMICAL PROCESSES, DYNAMICS AND CONTROL
101.	TULIKA PODDAR	NV MURALIDHAR RAO	ECONOMIC GROWTH AND ITS IMPACT ON HUMAN DEVELOPMENT
102.	SAHA GAURAVI BENUGOPAL	NV MURALIDHAR RAO	SOME ASPECTS OF BEHAVIOURAL GAME THEORY MODELS
103.	ABHILASHA SHARMA	NV MURALIDHAR RAO	CHANGE MANAGEMENT WITHIN ORGANIZATIONS
104.	RITIKA KARNANI	OMVIR CHAUDHRY	ANALYSIS OF RELATIONSHIP BETWEEN ECONOMIC GROWTH AND POVERTY PREVALENCE OF INDIAN STATES

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105.	SACHIN KUMAR	OMVIR CHAUDHRY	CAUSAL RELATIONSHIP BETWEEN COOPERATE ETHICS AND LONG TERM PROFITABILITY -CASE STUDY OF SELECTED LARGE COOPERATES IN INDIA
106.	AAKARSH PRASAD	OMVIR CHAUDHRY	AN ANALYSIS OF MANAGERIAL ISSUES IN AIR INDIA - INDIAN AIRLINES MERGER.
107.	IYENGAR VIDYA MADHAVAN	P SRINIVASAN	STUDY AND DESIGN OF A BINARY POWER PLANT WITH WATER IN THE PRIMARY CYCLE AND ACETONE OR BUTANE IN THE SECONDARY CYCLE AND DETERMINING AN OPTIMUM WORKING CAPACITY.
108.	WADEGAONKAR AMEY PRASAD	P SRINIVASAN	STUDY OF PERFORMANCE OF A DIESEL ENGINE WORKING ON VEGETABLE OIL AS FUEL.
109.	RAGHAV AGARWAL	P SRINIVASAN	TAPPING ENERGY OF EXHAUST BY USING EXHAUST GAS CIRCULATION (EGR) AND HEAT EXCHANGER.
110.	PRASOON GARG	P SRINIVASAN	DESIGN AND MANUFACTURING OF CHAIN DRIVEN TRANSMISSION FOR FORMULA STUDENT CAR USING FINITE ELEMENT ANALYSIS.
111.	SAKET NIHAL	P SRINIVASAN	IMPACT LOAD AND FATIGUE ANALYSIS ON SUSPENSION LINKAGES OF A BAJA CAR AND MATERIAL SELECTION BASED ON THE RESULTS OBTAINED
112.	SAKSHI GANDHI	P SRINIVASAN	STUDY OF PERFORMANCE OF A DIESEL ENGINE WORKING ON VEGETABLE OIL AS FUEL.
113.	CHIRAG GOYAL	PANKAJ BISWAS	IMPLEMENTATION OF OPENMP AND MPI FOR PARALLEL COMPUTING
114.	HIMANSHU BHARDWAJ	PANKAJ BISWAS	IMPLEMENTATION OF OPENMP AND MPI FOR PARALLEL COMPUTING
115.	SAURABH VIG	PANKAJ BISWAS	IMPLEMENTATION OF OPENMP AND MPI FOR PARALLEL COMPUTING
116.	JASPREET SINGH	PANKAJ KUMAR SHARMA	BIOTECHNOLOGICAL INNOVATIONS TO MEET AGRICULTURAL DEMANDS OF FUTURE INDIA
117.	AKSHIT SANDOOJA	PARIKSHIT K SINGH	FUZZY LOGIC APPLICATIONS IN ENGINEERING
118.	CHETAN ADITYA	PARITOSH SHUKLA	EXPLORING THE USE OF WATER AS SOLVENT/CO-SOLVENT FOR PERFORMING SIMPLE ORGANIC REACTIONS AND TRANSITION METAL CATALYZED ORGANIC REACTIONS
119.	ROHAN PASSEY	PAWAN SHARMA	DETAILED STUDY OF CONCEPTS PREVALENT IN CONTEMPORARY MICROPROCESSOR TECHNOLOGY, NAMELY NTFS FILE SYSTEM, "PROTECTED MODE" OF MEMORY ADDRESSING, "MAXIMUM MODE" OF 8086 OPERATION AND 80286/80386 MICROPROCESSORS.
120.	DIVYA ANSH ANUJ	PAWAN SHARMA	DETAILED STUDY OF THE 80386 MICROPROCESSOR
121.	JAIN CHIRAG KAMLESH	PC PANCHARIYAN	IDENTIFICATION OF LIQUIDS USING ULTRASONICS
122.	ISHAN TYAGI	PC PANCHARIYAN	IDENTIFICATION OF LIQUIDS USING ULTRASONICS
123.	GUNVARUN SINGH SUDAN	PC PANCHARIYAN	IDENTIFICATION OF LIQUIDS USING ULTRASONICS
124.	RACHIT JAIN	PC PANCHARIYAN	IDENTIFICATION OF LIQUIDS USING ULTRASONICS
125.	SAMRAT DAS	R GUPTA	STUDYING THE VARIOUS EXISTING PLANNING TECHNIQUES TO DEVISE A NEW CONSTRUCTION PLANNING TECHNIQUE
126.	AYUSH SINGH	R GUPTA	STUDYING THE VARIOUS EXISTING PLANNING TECHNIQUES TO DEVISE A NEW CONSTRUCTION PLANNING TECHNIQUE.
127.	PRATEEK JAIN	R GUPTA	STUDYING THE VARIOUS EXISTING PLANNING TECHNIQUES TO DEVISE A NEW CONSTRUCTION PLANNING TECHNIQUE
128.	NAVNEET YADAV	R GUPTA	APPLICATION OF ARTIFICIAL NEURAL NETWORKS IN HANDWRITTEN TEXT RECOGNITION.

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129.	KARTIK GOYAL	R GUPTA	APPLICATION OF ARTIFICIAL NEURAL NETWORKS FOR IMAGE RECOGNITION.
130.	NAMAN SHARMA	RAJEEV SAKHUJA	REPORT ON GREENER METHODOLOGIES FOR THE SYNTHESIS OF UGI ADDUCTS
131.	SNEHASIS PANDA	RAJEEV TALIYAN	TO STUDY THE BIO-CHEMICAL AIDS OF REHABILITATION THEORY.
132.	ABDEALI FAIZULLAHBHAJ ADENWALA	RAJEEV TALIYAN	TO STUDY THE MEDICAL ADVANCEMENTS IN ALZHEIMERS DISEASE.
133.	A V S P SASANKA KIREETI	RAJESH P MISHRA	STUDY OF SUPPLY CHAIN IN WHITE GOODS
134.	HIMANSHU JAIN	RAJESH P MISHRA	DEVELOPMENT OF A FRAMEWORK FOR LEAN AND 6 SIGMA
135.	SIDDHARTH BHATIA	RAJIV KUMAR	PLANAR GRAPH DRAWINGS
136.	ASTHA SHARMA	RAJIV KUMAR	STUDY OF DIFFERENT ALGORITHMS OF GRAPH THEORY
137.	AISHIK DHAR	RAJIV KUMAR	ALL WEIGHT SPANNING TREE AND IMBALANCES OF EDGES IN A GRAPH
138.	VIKAS KUSHWAHA	RAKHEE	STUDY OF NEURAL NETWORKS IN FUZZY ENVIRONMENTS.
139.	HIMANSHU	RAVI KANT MITTAL	USE OF WASTE MATERIAL IN IMPROVING SOIL PROPERTIES.
140.	PRATEEK NARAIN SHARMA	RAVI KANT MITTAL	USE OF WASTE TIRE CHIPS IN IMPROVING SOIL PROPERTIES.
141.	UDIT SHANKAR DASGUPTA	RAVI KANT MITTAL	DYNAMIC PROPERTIES AND LIQUEFACTION OF SOIL
142.	PIYUSH BANSAL	RAVI KANT MITTAL	OPTIMUM DESIGN OF FOUNDATION
143.	NIKITA MOGLA	RAVI KANT MITTAL	OPTIMUM DESIGN OF FOUNDATION
144.	ASHISH KUMAR	RR MISHRA	BASIC SEMICONDUCTOR PHYSICS AND ITS DEVICE APPLICATIONS
145.	PRANAV NARAYAN GOUR	S MOHAN	STUDY OF CACHE OPTIMIZATION TECHNIQUES FOR IMPROVING PROCESSOR PERFORMANCE
146.	HEMANG CHAWLA	SAI JAGAN MOHAN	MULTIBODY DYNAMICS
147.	MOHAMMAD ATIF	SAI JAGAN MOHAN	FLUID DYNAMICS
148.	AGHOR PRATIK PRASHANT	SAI JAGAN MOHAN	CFD
149.	ABHISHEK KUMAR	SAI JAGAN MOHAN	NUMERICAL METHODS FOR TOPOLOGICAL OPTIMIZATION
150.	SIDDHANSH AGARWAL	SAI JAGAN MOHAN	SPECTRAL METHODS IN COMPUTATIONAL FLUID DYNAMICS
151.	SNEHA SUMAN	SANJEEV KUMAR	MALARIA INDUCED CELL DEATH:ROLE IN DISEASE PROGRESSION
152.	AYUSH JAIN	SHAN BALASUBRAMANIAM	DEVELOPMENT OF PEER TO PEER INFRASTRUCTURE ON SOCIAL NETWORKS
153.	PUNIT SINGH KOURA	SHAN BALASUBRAMANIAM	ALGORITHMS FOR EXTRACTION OF PRE-DEFINED MACRO LEVEL COMPONENTS FROM DIGITIZED MURALS.
154.	RAMYA KUSUMA PILLUTLA	SHAN BALASUBRAMANIAM	ONLINE TEST SYSTEM
155.	JAMMALAMADAKA MANI SAI SURYATEJA	SHARAD SRIVASTAVA	STUDY ON THE FAILURE MECHANISMS OF COMPOSITE LAMINATES USING ACOUSTIC EMISSION MONITORING.
156.	ANURAG PRASAD	SHIBASISH CHOWDHURY	BUILDING A GENE AND PROTEIN NETWORK FOR DISEASE ANALYSIS.

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157.	VARIS KUMAR KALIA	SHIBASISH CHOWDHURY	APPLICATION OF GENETIC ALGORITHM IN PROTEIN STRUCTURE PREDICTION
158.	NITISH	SHIBASISH CHOWDHURY	BUILDING A DIGITAL GENE NETWORK FOR DISEASE ANALYSIS (SCHIZOPHRENIA).
159.	ASEEM SAXENA	SHIBASISH CHOWDHURY	DIGITAL GENE NETWORK FOR SCHIZOPHRENIA
160.	RUDRAKSH SYAL	SHIVI AGARWAL	TOTAL FACTOR PRODUCTIVITY IN FUZZY ENVIRONMENT
161.	SAURABH GUPTA	SHIVI AGARWAL	FUZZY GENETIC ALGORITHM
162.	ARPIT BHUTANI	SHIVI AGARWAL	APPLICATION OF DEA MODELS IN REAL LIFE SUCH AS ACADEMIC AND TRANSPORT SECTOR.
163.	ASHISH DALAL	SHIVI AGARWAL	APPLICATION OF FUZZY NEURAL NETWORKS
164.	SNEHIL ARORA	SHIVI AGARWAL	TOTAL FACTOR PRODUCTIVITY IN FUZZY ENVIRONMENT
165.	VINAYAK KRISHNAMURTHY	SHRINIWAS ARKATKAR	STUDY OF NOISE POLLUTION AND LEVELS IN PILANI
166.	DEVYANI CHOUDHARY	SHRINIWAS ARKATKAR	FLUID DYNAMICAL APPROACH TO TRAFFIC FLOW
167.	SAUMITR SHARMA	SHRINIWAS ARKATKAR	EXTRACTION OF TRAFFIC DATA ON EXPRESSWAYS.
168.	PRAGNESH PAHUJA	SHRINIWAS ARKATKAR	EXTRACTION OF TRAFFIC DATA ON EXPRESS HIGHWAYS
169.	AKSHITA AGARWAL	SHRINIWAS ARKATKAR	EXTRACTION OF TRAFFIC DATA FROM EXPRESSWAY
170.	A JYOTSNA	SHRINIWAS ARKATKAR	A STUDY ON VEHICULAR EMISSIONS IN BITS PILANI CAMPUS
171.	GYAN PRAKASH VERMA	SHUVENDU N PATEL	BENDING ANALYSIS OF CONCRETE SLAB WITH ABAQUS.
172.	SHUBHAM SHARMA	SHUVENDU N PATEL	TO ANALYSE EFFECT OF REPETITIVE LOADING ON REINFORCED CONCRETE BEAM USING ABAQUS SOFTWARE.
173.	TANISH ANAND	SHUVENDU N PATEL	STRESS ANALYSIS IN THREE-DIMENSIONAL SYSTEM
174.	GARIMA	SHVETANK BHATT	RECENT ADVANCES IN ATHEROSCLEROSIS
175.	DAKSH ARYA	SMITA KASHIRAMKA	ARBITRAGE PRICING THEORY
176.	AYAN PANDIT	SNEH LATA MUROTIYA	DIGITAL VLSI DESIGN
177.	SHIMEE GUPTA	SNEH LATA MUROTIYA	DIGITAL VLSI CIRCUIT DESIGNING
178.	PARAS KUMAR AGARWAL	SNEH LATA MUROTIYA	DESIGN OF DIGITAL VLSI SYSTEMS
179.	RUPANSHI	SNEH LATA MUROTIYA	DESIGN OF VLSI CIRCUITS
180.	DHARAP MIHIR SATISH	SRIKANTA ROUTROY	DEVELOPMENT OF FUZZY AHP FOR SELECTION OF DISTRIBUTION CHANNEL IN VEGETABLE SUPPLY CHAIN
181.	JASHID HAMEED	SRIKANTA ROUTROY	DEVELOPMENT OF MCDM FOR ANALYZING PERFORMANCE OF VEGETABLE SUPPLY CHAIN.
182.	SHUBHAM GUPTA	SRIKANTA ROUTROY	DEVELOPMENT OF INTERPRETATIVE STRUCTURAL MODELING FOR VEGETABLE SUPPLY CHAIN.
183.	SHAH KETUL SAMIR	SRIKANTA ROUTROY	A GRAPH THEORETIC APPROACH FOR MEASURING PERFORMANCE OF VEGETABLE SUPPLY CHAIN.
184.	SAHAJ DASOT	SRIKANTA ROUTROY	DEVELOPMENT OF PERFORMANCE MEASUREMENT SYSTEM FOR VEGETABLE SUPPLY CHAIN
185.	SHRAYANSH KOTHIYAL	SRINIVAS REDDY K	STUDY OF XILINX LOGIC FAMILIES
186.	AAYUSH SINGAL	SRINIVAS REDDY K	STUDY OF XILINX LOGIC FAMILIES
187.	ANSHUL AGRAWAL	SUBRATA BANDHU GHOSH	A STUDY ON HYBRID BIOCOSMOSITES

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188.	ANKUR NAIK	SUBRATA BANDHU GHOSH	STUDY OF CHARACTERIZATION AND PERFORMANCE TESTING OF HIGH STRENGTH AUTOMOTIVE COMPOSITES
189.	SAURABH GUPTA	SUDESHNA M CHOUDHURY	SOLID STATE REALIZATION OF QUANTUM COMPUTER.
190.	AKASH SATYENDRA TANEJA	SUNIL KUMAR DUBEY	ROLE OF HYPHENATED TECHNIQUES IN PHARMACEUTICAL ANALYSIS
191.	ABHAY TYAGI	SUNIL KUMAR DUBEY	DATABASE SEARCHING AND APPLICATIONS OF LCMS/MS IN PROTEOMICS
192.	AKASH GARG	SUREKHA BHANOT	ARTIFICIAL INTELLIGENCE TECHNIQUES IN INTELLIGENT INSTRUMENTATION
193.	REENA JAIN	SURESH GUPTA	COMPUTATIONAL FLUID DYNAMICS(CFD) STUDIES FOR SELECTED CHEMICAL ENGINEERING PROCESSES.
194.	HIMANISH GANJOO	TAPOMOY G SARKAR	STRUCTURE FORMATION IN MODIFIED EINSTEINIAN GRAVITY
195.	ABHISHEK SHARMA	TAPOMOY G SARKAR	RELATIVISTIC FLUID MECHANICS
196.	ARVIND NANDAN SINGH	UTKARSH MAHESHWARI	STUDY OF THE VARIOUS PROCESS INVOLVED IN PETROCHEMICAL POLYMER PRODUCTION PLANT.
197.	DHRUV SURI	VANDANA AGARWAL	PATTERN RECOGNITION TO ANALYZE NEURAL NETWORKS.
198.	NIPUN GUPTA	VINITA TIWARI	DIFFERENT MODULATION TECHNIQUES IN WIRELESS COMMUNICATION.
199.	ASHISH VERMA	VINITA TIWARI	METAL OXIDE SEMICONDUCTOR TRANSISTORS(MOSFET) FABRICATION TECHNIQUES
200.	YUVRAJ SAHNI	VINITA TIWARI	STUDY OF LTE(LONG TERM EVOLUTION)
201.	ANKIT GUPTA	VINITA TIWARI	OPTICAL COMMUNICATION
202.	RITESH JAISWAL	VINITA TIWARI	MICRO ELECTRO MAGNETIC SYSTEMS
203.	MEHTA SAGAR AJIT	VINITA TIWARI	DIGITAL SIGNAL PROCESSOR AND ITS ARCHITECHTURE
<b>DESIGN PROJECTS</b>			
1.	SUMIT SAINI	VIRENDRA SINGH NIRBAN	DESIGNING AND DEVELOPING AN INTERACTIVE WEBSITE
2.	SHAKTI SINGH	PUSHP LATA	DESIGNING THE MATERIAL FOR TEACHING COMMUNICATION TO COLLEGE STUDENTS.
3.	DANISH	AK SARKAR	EVALUATING SKILLS AND INTERESTS OF STUDENTS BASED ON THEIR PERFORMANCE IN VARIOUS COURSES.
4.	SHRUTI RIJHWANI	MUKESH KR ROHIL	IMPLEMENTATION OF SOME GRAPH THEORETICAL METHODS IN IMAGE PROCESSING
5.	ANOOP.K.RAJEEV	ASHISH MISHRA	FPGA BASED SYSTEM DESIGN USING PETALINUX
6.	TUSHAR RATHI	SURESH GUPTA	ENERGY EFFICIENCY IN PROCESS PLANTS WITH OPTIMIZATION IN HEAT EXCHANGER NETWORKS(HENS)
7.	KHUSHBOO SINGH	HK MOHANTA	DESIGN OF REACTIVE DISTILLATION PROCESS
8.	NIHIT GUPTA	NIKHIL PRAKASH	MODELLING AND SIMULATION OF FCC
9.	SHRUTI KHANDELWAL	SURESH GUPTA	MODELLING AND SIMULATION IN BIOFILTRATION FOR THE REMOVAL OF VOCS.
10.	SOUREESH GHOSH	NIKHIL PRAKASH	STUDY AND APPLICATIONS OF ASPEN+ IN CHEMICAL ENGINEERING PROCESSES
11.	ARJUN VIKAS	SURESH GUPTA	ENERGY EFFICIENCY IN PROCESS PLANTS WITH OPTIMIZATION IN HEAT EXCHANGER NETWORKS(HENS)

S.NO.	NAME	FACULTY	PROJRCT TITLE
12.	MEDHA PANDEY	SURESH GUPTA	MODELLING AND SIMULATION OF BIOREACTORS USING COMPUTATIONAL FLUID DYNAMICS
13.	SHUBHAM MEHTA	NIKHIL PRAKASH	MODELLING AND SIMULATION OF FCC
14.	ASHISH PANWAR	DIPENDU BHUNIA	DESIGN OF A BUNGALOW USING AUTOCAD AND OTHER CIVIL-3D SOFTWARES.
15.	HARISH KUMAR MULCHANDANI	G MUTHUKUMAR	SITE SPECIFIC SEISMIC DESIGN PARAMETERS OF PARTICULAR REGION.
16.	V C ROOPANA	ANSHUMAN	DEVELOPMENT OF PROGRAM TO DRAW BENDING MOMENT AND SHEAR FORCE DIAGRAMS OF VARIOUS BEAMS
17.	SIDDHARTH MALHOTRA	ANU GUPTA	DESIGN AND SIMULATION OF DIGITAL VLSI CIRCUITS USING FPGA TECHNOLOGY AND IEEE STANDARD OF FPGA DESIGN.
18.	ABHIJITH PRADEEP	ASHISH MISHRA	PARTIAL RECONFIGURATION DESIGN OF IMAGE PROCESSING APPLICATION
19.	MOHIT KUMAR	SHARAD SRIVASTAVA	STATIC STRUCTURAL, FATIGUE AND MODAL ANALYSIS OF WHEEL UPRIGHTS, HUBS AND A-ARMS OF BITS PILANIS FORMULA SAE RACE CAR.
20.	SHALAKA JAYANT VIRKAR	RN SAHA	STUDIES ON SOME ASPECTS OF COMPUTER AIDED DRUG DESIGN AND QSAR.
21.	DEEPAK MALIK	K HARI BABU	IMPLEMENTATION OF SCALE-ABLE MEDIA SHARING USING PEER-TO-PEER TECHNOLOGY.
22.	AKHILESH ANANDH	AK SARKAR	EVALUATING SKILLS AND INTERESTS OF STUDENTS BASED ON THEIR PERFORMANCE IN VARIOUS COURSES
23.	MAYUR SAXENA	YASHVARDHAN SHARMA	DESIGNING FRAMEWORK FOR OPINION MINING
24.	ABHINAV BHATIA	K HARI BABU	IMPLEMENTATION OF SCALE-ABLE MEDIA SHARING USING PEER TO PEER TECHNOLOGY.
25.	KAUSTUBH SHRIKRISHNA NAWADE	CHAMPAK BARAN DAS	NUCLEAR PHYSICS WITH RIA

### NEW COURSES INTRODUCED IN THE YEAR 2013

**New / Modified Courses:**

S. No.	Course Number	Course Name	L	P	U
1.	BIO F314	Conservation Biology	2	1	3
2.	BIO G544	Bioremediation and Biometallurgy			5*
3.	BITS C215/ F215	Applications of Bio-Medical Instrumentation Techniques in Healthcare	2	0	2
4.	BITS C315	Multicriterion Decision Making in Engineering and Management	3	0	3
5.	BITS C465/F465	Enterprise Computing	3	1	4
6.	BITS C466/F466	Service Oriented Computing	3	1	4
7.	BITS F418	Introduction To Biomedical Engineering	3	1	4
8.	BITS F419	Management of Cross-cultural Engineering Teams	3	0	3
9.	BITS F482	Creating and Leading Entrepreneurial Organizations	3	0	3
10.	CE G516	Multicriteria Analysis in Engineering	3	1	4
11.	CHE G533	Petroleum Product Characterization	3	2	5
12.	CS F468	Information Security Project	0	3	3
13.	CS G568	Network Security Project	0	3	3
14.	ECON F314	Industrial Economics	3	0	3
15.	EEE G522	Advanced Satellite Communication			5*
16.	GS F233	Public Policy	3	0	3
17.	GS F242	Cultural Studies	3	0	3
18.	HSS C316/F316	Popular Literature and Culture of South Asia	3	0	3
19.	HSS C317/F317	Introduction to Globalization	3	0	3
20.	HSS C318/F318	Introduction to Anthropology	3	0	3
21.	HSS C319/F319	Lighting for Theatre and Films			2*
22.	HSS F227	Cross Cultural Skills	3	0	3
23.	HSS F232	Introduction to Development Studies	3	0	3
24.	HSS F266	Study Project			3
25.	HSS F323	Organizational Psychology	3	0	3
26.	HSS F338	Comparative Indian Literature	3	0	3
27.	HSS F340	Post Colonial Literatures	3	0	3
28.	HSS F341	Performance Design	1	2	3
29.	HSS F342	Advanced Communicative English	3	0	3
30.	HSS F347	Introduction to Carnatic Music	3	0	3
31.	HSS F348	Introduction to Hindustani Music	3	0	3
32.	HSS F349	Ecocriticism	3	0	3
33.	HSS F350	Human Rights : History, Theory & Practice	3	0	3

S. No.	Course Number	Course Name	L	P	U
34.	HSS N201T	Introduction to Photography			2*
35.	INSTR F311	Electronic Instrumentation & Instrumentation Technology	3	1	4
36.	ME F433	Solar Thermal Process Engineering	3	1	4
37.	ME G541	Computational Heat Transfer	3	1	4
38.	PHA G545	Intellectual property rights and Pharmaceuticals	3	0	3
39.	PHA G645	Molecular Pharmacology	3	0	3
40.	PHY C412	Introduction to Quantum Field Theory	3	1	4
41.	PHY C415	General Theory of Relativity and Cosmology	3	1	4
42.	PHY C423	Special Topics in Statistical Mechanics	3	1	4
43.	SANS F111	Sanskrit	3	0	3

### Revised list of Humanities Electives

S. No.	Course No.	Course Title	L	P	U
1.	BITS F385	Introduction to Gender Studies	3	0	3
2.	GS F211	Modern Political Concepts	3	0	3
3.	GS F223	Introduction to Mass Communication	3	0	3
4.	GS F224	Print and Audio-Visual Advertisement	2	1	3
5.	GS F231	Dynamics of Social Change	3	0	3
6.	GS F232	Introductory Psychology	3	0	3
7.	GS F233	Public Policy	3	0	3
8.	GS F234	Development Economics	3	0	3
9.	GS F241	Creative Writing			3*
10.	GS F243	Current Affairs	3	0	3
11.	GS F244	Reporting and Writing for Media	2	1	3
12.	GS F245	Effective Public Speaking	2	1	3
13.	GS F311	Introduction to Conflict Management	3	0	3
14.	GS F312	Applied Philosophy	3	0	3
15.	GS F321	Mass Media Content and Design	2	1	3
16.	GS F322	Critical Analysis of Literature and Cinema	3	0	3
17.	GS F325	Journalism	3	0	3
18.	GS F326	Creative Thinking	2	1	3
19.	GS F332	Contemporary India	3	0	3
20.	GS F333	Public Administration	3	0	3
21.	GS F341	Copywriting	2	1	3
22.	GS F343	Short Film and Video Production	2	1	3
23.	HSS F221	Readings from Drama	3	0	3
24.	HSS F222	Linguistics	3	0	3
25.	HSS F223	Appreciation of Indian Music	3	0	3



S. No.	Course No.	Course Title	L	P	U
26.	HSS F226	Postmodernism	3	0	3
27.	HSS F228	Phonetics & Spoken English	3	0	3
28.	HSS F229	Introduction to Western Music	3	0	3
29.	HSS F233	Main Trends in Indian History	3	0	3
30.	HSS F234	Main Currents of Modern History	3	0	3
31.	HSS F235	Introductory Philosophy	3	0	3
32.	HSS F236	Symbolic Logic	3	0	3
33.	HSS F315	Society, Business, and Politics	3	0	3
34.	HSS F325	Cinematic Adaptation	3	0	3
35.	HSS F326	Humanities and Design	2	1	3
36.	HSS F327	Contemporary Drama	3	0	3
37.	HSS F328	Human Resource Development	3	0	3
38.	HSS F329	Musicology – An – Introduction	3	0	3
39.	HSS F331	Sankara's Thoughts	3	0	3
40.	HSS F332	Cinematic Art			3*
41.	HSS F333	Comparative Religion	3	0	3
42.	HSS F334	Srimad Bhagavad Gita	3	0	3
43.	HSS F335	Literary Criticism	3	0	3
44.	HSS F336	Modern Fiction	3	0	3
45.	HSS F337	English Literary Forms and Movements	3	0	3
46.	HSS F338	Comparative Indian Literature	3	0	3
47.	HSS F339	Theatre Art Acting and Production	3	0	3
48.	HSS F343	Professional Ethics	3	0	3
49.	HSS F344	Heritage of India	3	0	3
50.	HSS F345	Gandhian Thoughts	3	0	3
51.	HSS F346	International Relations	3	0	3
52.	GS F233	Public Policy	3	0	3
53.	GS F242	Cultural Studies	3	0	3
54.	HSS F227	Cross Cultural Skills	2	0	2
55.	HSS F232	Introduction to Development Studies	3	0	3
56.	HSS F266	Study Project			3
57.	HSS F323	Organizational Psychology	3	0	3
58.	HSS F338	Comparative Indian Literature	3	0	3
59.	HSS F340	Post Colonial Literatures	3	0	3
60.	HSS F341	Performance Design	1	2	3
61.	HSS F342	Advanced Communicative English	3	0	3
62.	HSS F350	Human Rights : History, Theory & Practice	3	0	3
63.	SANS F111	Sanskrit	3	0	3

### **SPECIAL LECTURES DELIVERED BY INVITED SCHOLARS**

1. Dr. Dipankar Koley, Assistant Professor, Department of Chemistry, Oregon State University USA, delivered a lecture on Applications of electrochemical techniques to study biological systems: from cancer cells to bacterial biofilms
2. Mr. Abhaya Singha, Film Director, Freelancing, Bangalore, delivered a talk on Documentary film making on 29 March 2013.
3. Dr. Rajkumar Shirumalla, Associate Director, Discovery Biology, Daiichi-Sanyo India Ltd., delivered a talk on Discovery of new molecules: Challenges and Perspectives, on 10 March 2013.
4. Dr. Prashant L. Kole, Syngene International Ltd., Bangalore, delivered a talk entitled, 'Micro-sampling coupled with micro-bioanalysis in preclinical pharmacokinetic studies' on 07 March, 2013.
5. Dr. Manfred P. Schneider, Professor, Department of Organic Chemistry, FBC- Bergische University, Wuppertal D, Germany, delivered two lectures entitled 'Plain Enzyme-assisted synthesis of bioactive molecules' and 'Biocatalysis for bio based products' on 24 January, 2013.
6. Dr. Dwaipayan Bharadwaj, Senior Principal Scientist, CSIR Institute of Genomics & Integrative Biology, New Delhi, delivered a lecture entitled 'Divulging Genetic basis of type-II diabetes and related disorders in humans' on 9 April, 2013.
7. Mr. Siddhartha Gigoo, Writer & Film Maker, delivered a talk entitled 'Kashmir for popular literature and culture of south asia HSS-C316 & F316' on 5 April 2013.
8. Dr. K.A. Sure, Ex-Director, Scientist, IIM-Jammu, delivered a lecture entitled 'Value addition of some important herbal plants used in single and poly-herbal formulations' on 30 September, 2013.
9. Dr. Phani Tetali, Associate Professor, Co-ordination Animation Programme, IIT Mumbai, delivered a talk on Creativity & Animation on 16 October, 2013.
10. Mr. Kishore Chakraborti, Vice President, Consumer Insight, Mc Cann Erickson India, delivered a talk entitled "Consumer Behaviour" on 7 November, 2013.

## LIST OF FIRST DEGREE THESIS PROJECTS COMPLETED DURING THE YEAR 2013

### Second Semester 2012-2013 (January 2013 to May 2013)

S.No.	Name	Topic	Suervisor
<b>Pilani Campus</b>			
1.	Dharnish K	Development of a mathematical model for facial expression recognition	Raj Kumar Gupta
2.	Durga Prasanna Ray	Optical characterization of nanomaterials	V. Manjuladevi
3.	Ashish Gautam	Studies on glycoconjugates of d-glucose and its reactivity.	Ajay K. Sah
4.	Riddhidev Banerjee	Synthesis and docking studies of pyrazolopyran molecules as potential anticancer agents	Paritosh Shukla
5.	Ankit Arora	Achieving excellence in higher education	Arya Kumar
6.	Lakshmikanth Koundinya Ayyagari	Statistical modelling of distress in aviation industry in india	Omvir Chaudhry
7.	Nayak Karopadi Akash	Multidisciplinary approach to dealing with aki: medical and engineering applications	Claudio Ronco
8.	Prateek Kumar Gupta	The stalled global recovery: is this time different	Nvm Rao
9.	Ananya Das	Financial resource sharing: a study in the backdrop of the indian federal structure	Samik Chowdhury
10.	Devesh Pandey	Financial models in indian context	Arun Kumar Vaish
11.	Vibhor Chaturvedi	Analysis of economic policy in india after the post reform period	Nv Muralidhar Rao
12.	Shruti Subramanian	lii- v compounds semiconductor based novel optoelectronic devices	Arnab Bhattacharya
13.	Mukundan Sandeep	Rf mems filters.	G Meenakshi Sundaram
14.	Sumit Kumar Pradhan	A report on mapping and scheduling of task graph	Ashish Mishra
15.	Sukhatme Sarvesh Abhay	Modeling of magnetor eashore biosensors.	Surekha Bhanot
16.	Manish Gurwani	Impacts of distributed generation in restructured power system	Hari Om Bansal
17.	Arvind Singh	Bearing health monitoring and fault diagnosis.	K K Gupta
18.	V Venkatesh	Control of dc to ac converter using fuzzy logic based pi controller.	A Ananda Kumar
19.	Prateek Mishra	Study of digital modulation technique.	Navneet Upadhyay
20.	Samagra Singh	Investigation on rare earth based florcroptic sensors for temperature measurement.	R Purohit
21.	Sukhin Madhok	Investigations on rare earth materials doped with copper for temperature sensing application.	R Purohit

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
22.	Rohan Mahajan	Analysis of suitable solid dielectric material for a micromechanical compound mode ring resonator.	G Meenakshit Sundaram
23.	S Snigdha	Health monitoring of machine.	K K Gupta
24.	Pranjal Kalra	Neural network application in modeling and control.	Surekha Bhanot
25.	Shobhit Srivastava	Analysis of fiber non linearity's and pulse shapes in optical transmission system.	Vinita Tiwari
26.	Kanwalpreet Dhindsa	Designs of digital vlsi circuits for light performance.	Shenlata Murotiya
27.	Nidumolu Ravi Teja	Ann base model (control system) of dc to ac connector.	A Ananda Kumar
28.	Prakhar Sharma	Analysis and design of semiconductor memory (sram)	Nitin Chaturvedi
29.	Sanchit Parakh	Control technologies for large scale uses of photovoltaic (pv) on electric power grid system.	Hari Om Bansal
30.	Vipul Kumar Choubey	Different modulation schemes in high speed optical communication.	Vinita Tiwari
31.	Rishi Ranjan	Modeling and simulation of duo binary modulation technique for high speed optical communication link	Vinita Tiwari
32.	Pranshu Kacholia	Analysis and design of cache coherence protocol for multibank nuca for cmp/ tiled architecture.	Nitin Chaturvedi
33.	Anirudh Joshi	Performance & analysis of nuca cache architecture using single and multi-thread benchmark.	Nitin Chaturvedi
34.	Siddhartha Shirish Garud	Nano- structure- based bio- sensors.	B D Pant
35.	Siddhartha Joshi	Testing Of 2d Protovipram Chip And Implementation In 3d.	Tiehui Liu
36.	Saurabh P. Bondarde New	Study data analysis of high energy observations of variable objects.	Dr. F. Sutari
37.	Nikil K Rao	Implementation of machine learning algorithms for hyper spectral image procession of land surface features.	S N Omkar
38.	Divyanshu Singhal	Anticancer properties of camel's milk	Uma S. Dubey
39.	Bhavya R	Enzymatic transesterification for biodiesel production: cloning of high activity lipases in expression systems for the purpose of over expression	Rajesh Mehrotra
40.	Pinaki Aggarwal	Immunomodulatory properties of camel's milk	Uma S. Dubey
41.	A Nikhil	Changes in signal transduction molecules of host in infections with plasmodium falciparum and plasmodium vivax	A.K. Das
42.	Jais Dev	Study of mi-rna diffecting autophagy in cardiovascular system	Praphulla Shukla
43.	Nelabhotla Anirudh Bhanu Teja	Optimization of hydraulic retention time in acedogenesis phase in anaerobic digestion by testing the acidogenic abilities of different microbial consortia on biowastes	Arun Kansal

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
44.	Nitin Grover	Integration operation of hydraulic turbines in irrigation canals.	Mohan S.Kumar
45.	Hemant Khatri	Cloud formation and stability.	Rama Govindrajan
46.	Shreya Garg	Simulation of shale gas well	Arun Gupta
47.	Pranjali Priyadarshini	Synthesizing a molecular architecture for photocatalytic water oxidation.	Jyotishman Das Gupta
48.	Sandipan Chakraborty	Developing none metallic catalytic system for hydrogen production from oxygenated biomass	Banasri Roy
49.	Abhimanyu Sharma	Kinetic modelling and simulation of metallocene catalysed ethylene polymerisation.	Nikhil Prakash
50.	Shuvendu Kumar	Studies on hydrogen production by reforming process.	Nikhil Prakash
51.	Milan Kunda	Relative gain array(rga) analysis of dynamic process models.	Amit Jain
52.	Archita Singh	Dynamic simulation of chemical plants.	Basheer Ahmad
53.	T Shruthi Reddy	Dynamic simulation and optimization of reactive distillation process using evolutionary algorithm.	Basheer Ahmed
54.	Vineet Ranjan Pandey	Modeling of rotary cement kilns using theoretical and emperical models.	H.K. Mohanta
55.	Sudarshan Ranganathan	Dynamic simulation and control of reactive distillation.	H.K. Mohanta
56.	Saurabh Bhardwaj	Process intensification during flow through miniatures cfd analysis.	Sumana Ghosh
57.	Ankur Tiwari	Relative gain array(rga) analysis for uncertain dynamic process models.	Amit Jain
58.	Siddharth Bisen	Relative gain array(rga) analysis of dynamic process models.	Amit Jain
59.	Deshpande Rohan Milind	Computational fluid dynamic analysis of biomass gasifier using fluent.	Pratik N Sheth
60.	Vengatesh Muralidharan	Indentification of process connectivity through routine plant data.	Sirish .L. Shah
61.	Irvinder Noor Singh	Indentification of process connectivity through routine plant data.	Sirish.L. Shah
62.	Haresh Bhagia	Biofiltration of chlorinated vocs	Smita Raghuvanshi
63.	K. Vinay Kumar Reddy	Study of single server queuing model with vacation	Chandra Shekhar
64.	V. M. V. N. Saiteja	Study of single server queuing model with switching costs	Chandra Shekhar
65.	C. Ajay Aditya	Study on drawings of planar graphs	Rajiv Kumar
66.	Aman Jain	Least square spectral element methods for non-linear parabolic problems	Pankaj Biswas
67.	Pranshu Gupta	Fuzzy optimization	Shivi Agarwal
68.	P. Pruthvi Reddy	Numerical solutions of berger's equation	Amit K. Verma

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
69.	Pratik Suchde	Nonlinear models for the vibrating String	A.S. Vasudeva Murthy/ Pankaj Biswas
70.	Manan Shah	Optimal partitioning of workers servicing tss lines	Leonid Bunimovich/ Chandra Shekhar
71.	Aviral Utkarsh	Knowledge management in context of r&d	Jyoti
72.	Saurabh Sachdeva	Knowledge management in context of r&d	Jyoti
73.	Vikash Prasad	A review of code of practice for design of pile foundation	Ravi Kant Mittal
74.	Himanshu Gupta	A review of leaching framework for leaching studies of flyash disposed off in landfills	Sanghamitra Kundu
75.	Shruti A. Jibhakate	Hazardous waste management	Anupam Singhal
76.	Samaksh Jhanjhari	Development & implementation of software to design rainwater harvesting system for villages	Rajiv Gupta
77.	D V M Bhaskar	A study on the effects of carbonation on the properties of concrete	Dipendu Bhunia
78.	Aayush Saxena	Managing waste and cost in the construction industry	Dipendu Bhunia
79.	Sharmila Shinha	Parametric study of prestressed cfrp reinforced box beams for highway bridges	S. B. Singh
80.	Tariq Khan	Strengthening of brick masonry structures using fibre reinforced polymer bars and engineered cementitious composite strips	S. B. Singh
81.	Saurabh Sandeep Kothari	Design of a multi unit particulate system for a fixed dose combination of artesunate and amodiaquine for pediatrics	Shrikant Charde
82.	Ankit Jetwani	Analytical method development and validation of candidate drug.	Sunil K. Dubey
83.	Anirudh Singh	Analytical method development and validation of candidate drug.	Sunil Kumar Dubey
84.	Rahul Pareek	Study of use of social networking platforms by student community	Virendra Singh Nirban
85.	Yogendra Singh	Rhetorics of political speeches	Pushp Lata
86.	Ranveer Singh	Relevance of motivation in academic with spual reference to college students	Tanu Shukla
87.	Siddharth Arya	Cinematic cityscapes: study of changing city landscape as represented in cinema	Geetha B
88.	Sachin Kumar Soni	Elective course preferences of first degree students at bits pilani	Tanu Shukla
89.	Sreejan Shandilya	Critical evaluation of urban policies in india	Tathagato Chakraborty
90.	N. Sai Ram Srivatsa	A study on the national health policy of india	Umesh Dhyani
91.	Varishti	Some famous saints of india	Devika
92.	A Sachin	Study of Location Aided Routing in Mobile Ad-Hoc Network	Murali P.

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
93.	Sarat Chandra Maddala	User Interface Design Methodologies and Design Notations	M.K. Rohil
94.	Eshaan Puri	Construction of a Multi-ModelCodebook for image classification	S.P. Vimal
95.	Adeeb Pathan	Some techniques for improving graphical user interface for some applications used for online evaluation	M.K. Rohil
96.	Jai Awasthi	Constraint Solving Techniques to software testing	N.K. Gupta
97.	Ishan Chopra	Hierarchical Text Classification	N. Mehala
98.	Amit Jalan	Some pattern recognition techniques for image compression and statistical analysis of large image databases	M.K. Rohil
99.	Tanay Upadhyaya	Kernel scheduler for multicore processors in heterogenous systems	Sudeept Mohan
100.	Namandeep Singh Chugh	Fine grained parallelism for multicore architectures	D.C. Kiran
101.	Saiyedul Islam	Parallelizing data clustering Algorithms for multi-core MPI Cluster	Navneet Goyal
102.	Pranjal Ranjan	Investigation into the soldier to soldier battle field communication involving MANET	Rahul Banerjee
103.	Korade Anup Ashok	Design & Performance Evaluation of The CDNP2P Mesh connected hybrid Network for Live Streaming	K Hari Babu
104.	Munish Bhatia	Register Allocation and building optional instruction scheduling for multicore architectures	D.C. Kiran
105.	Puneet Chaurasia	Early Software Reliability Estimationof UML Dynamic Models Using SFTA, SFMEA	Pankaj Vyas

### ***K K Birla Goa Campus***

106.	T.Vignesh	Implementation of a real time ,non intrusive ,fine grained power monitoring system for college campuses	Prof. Anupama
107.	Pranay Agrawal	Developing an Efficient Model for Transportation using SQL	Prof. Mridula Goel
108.	Tejas Pandey	Economics Of Crowd Funding	Dr. R.P.Pradhan
109.	Kapil Sachdewa	Trend of Gold usage in India and its impact on international market	Dr. R.P.Pradhan
110.	Tumuluru Nishchel Sai Kumar	Hysteric seat design and control of passenger vibration in a quarter car model	Dr. Pravin Singru
111.	Sachin Bhatt	Nuclear Matter Saturation	Dr. T.K.Jha
112.	Ayush Sharan	Study of Joint Simulation using Bimechanical Engineering In Human Body	Prof. D.M.Kulkarni
113.	Aditya Somayaji Bulusu	Design a suitable reactor for anaerobic digestion of sewage sludge	Dr. P.V.Rao
114.	Mudit R Gupta	An Extension of Q-learning	Mr. Ramprasad Joshi

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
115.	Nisheeth Bandaru	Aspects of Quantum Information	Dr. Radhika Vathsan
116.	Subhamanyam Kuruganti	Interrelation of Information risk ,Technology and Financial Risk	Dr. Patnaik
117.	Shallab Mittal	Demonstration of energy Management strategies of BITS-pilani K K Birla Goa Campus	Prof .M.K.Deshmukh
118.	Rahul Sadashiv Shityalkar	Energy Storage & Usage of Renewable Energy	Dr. Ranjan Dey
119.	Nisheeth Nimmagadda	Study of Joint Simulation using Bimechanical Engineering In Human Body	Prof. D.M. Kulkarni
120.	Govindwar Rahul Pramod	Indo –EU emerginig trade paradigm	Dr. R.P. Pradhan
121.	Nikam Samer Jagannath	Design and Optimisation of Electrode in Electro-Discharge Machining	Dr. Rakesh Mote
122.	Phani Sarma Nagavrapu	Detection and mitigation of power quality events	Dr. Chandram
123.	Bollu Pavan Kumar	Forecasting wind power generated on the basis of factors like wind speed ,generation hows ,Relative Humidity using statistical models	Mr. CBK Moorthy
124.	K Sai Teja	Devising Trading Strategies for forecasting High Frequency Trade	Dr. Patnaik
125.	Isha Kalra	Evaluation of extremophilic enzymes from Halophilic archaea	Dr. Judith Braganca
126.	Pinisetty Krishna Sai	Assement and Application of Transfer Pricing methods in Multinational Corporation	Dr. Patnaik
127.	Rishav Raj	International trade,Technology Development and competitiveness in the manufacturing sector in India	Dr. Aswini Mishra
128.	Prakhar Singh	The Spatial Distribution of Economics Activity-Evidences from Manufacturing sector in India	Dr. Aswini Mishra
129.	G Ashish Reddy	Hybrid algorithm for electricity price forecasting	Dr. K.Chandram
130.	Sindam Nataraj	Applications of topology in computer Science	Dr. Prasanna Kumar
131.	Vasa Arun Kumar	Relationship Between Technolgy cum financial risk and its impact on swing trading	Dr. Patnaik
132.	Amit Dhanda	Isolation of Sebox protein mutatits from vibrio cholera	Dr. Sumit Biswas
133.	Sahil Malhotra	Design & Development of Body Paoered Prosthetic hand	Prof. B.J.C. Babu
134.	Jigar Gadhta	Inter Industrial Inter State Variation in productivity and efficiency the case of the Indian manufacturing sector	Dr. Aswini Mishra
135.	Dalvi Prathamesh Sanjay	Complex Surface Machining using Advanced CNC part Programming	Dr. Rakesh Mote
136.	Ankit Asati	Impact of Indian MNC in the International Labour Market	Dr. R.P. Pradhan
137.	Partosh Prasanna Gote	Analysis of Geometric Graphs	Mr.R amprasad Joshi



<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
138.	Gaurav Misra	Station Keeping of a Solar sail around spophis	Dr. Florent Deleflie
139.	Rajat Goyal	Emboded Learning a Gumpse into the future of skill Development in emerging Markets	Nimesh Mehta
140.	Aditya Khandekar	Scalabb Pocurtrain& Prototype Design for a Pumping Kite Generator	Corey Houle
141.	Nehil Jain	Research on In situ Audio Services	Prof. Jeremy Cooperatock
142.	Bharath B R	Thin Film Transistors	Dr. Karthik Shankar
143.	Chetan Bansal	UX desigining for active learning feedback	Naren Batha
144.	Apoorvaa Deshpande	Serecy for Authorization System	Prasad Naldurg
145.	Aman Asija	Causes and consequences of pledging shares:Indian Evidence	Prof. Srinivasan Rangan
146.	Nishant Agarwal	Empirical Evaluation of very complex release planning problems	Dr. Guenther Ruhe
147.	Aman Preet Singh	Imperial Investigations for very complex vehicle Routing Problems	Dr. Guenther Ruhe
148.	Anantaram V	Analysis of low order harmonic emission of electric vehicles and their impact on the distortion in public low voltage grid	Dr. Jan Meyar
149.	Pritesh Gudge	Evaluation and Preparation of Microcontroller for usage in Ionizing Radiation environmnets	Dr. Udo Kevschaulla
150.	Neha Nayak	Automatic Distinction of Semantic relation pairs in English using patern based corpus co-occurence	Prof. Sabine Walde
151.	Amrit Pal	Merchant Payments through mobile: Revisiting M-PESA buy goods service in Kenya	Prof. Mridula Goel
152.	Anuva Kulkarni	Algorithm for locating Non Defective items in a large population	Dr Chandra Murthi
153.	Dhananjay Sathe	Sugmenting Rapyuta-Entancing performance,Security .Development and Usability	Dr. Markus Waibel
154.	Mayank Singh	Rapyuta :Console client Integration with roboearth and other enhancements	Dr. Markus Waibel
155.	Shubhanshu Tiwari	Behavior of entanglement in open quantum systems under continuous monitotoring	Dr. Alberto Barchielli
156.	Vishnu Prasad K	Effect of Rotation on Stability of Boundary Layer Flows	Dr. Ramagovindarajan
157.	Abhiraj Pratap Singh Tomar	User modelling for companionbots	Dr. Rodney Nielsen
158.	Dhruva T.B.	Evaluation of the MPPA manycore processor	Philippe Clauss
159.	Vikas Goel	Enhancement of Autopref a workload generation and measurement tool	Prof. Varsha Apte
160.	Selvam P	Design ,Implementation and validation of a robust, Flexible and Extensible Framework for Statistical Computing and Statistics Education	Prof. Ivo Dinov
161.	Kunjan Gandhi	Optimise the DAE solutions in power system analysis	Dr. Paul Henes

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
162.	Anish Pandey	Pattern Formation in Physical System	Prof. V. Baneija Prof. S. Patnaik

### **Hyderabad Campus**

163.	Paturu Harish	Application of operator splitting methods to solve hyperbolic partial differential equations	Dr. A Ramu
164.	Pratyush Prabhab Buragohain	Tunneling Magneto Resistance in presence of spin transfer torque and thermal fluctuations	Dr. Swarnali Bandopadhyay
165.	Shikhar Malik	Analysis of FDI in retain sector of India	Dr. Lalitha
166.	KasiSarath Koundinya	Nanoplasmonic solar cells	Dr. Kannan Ramaswamy
167.	J.Venkata Ramesh Varma	Study of sustainable lubrication in flow forming type incremental sheet metal forming	Dr. S P Regalla
168.	Butreddy Yashwanth Kumar Reddy	High power high efficiency audio amplifiers	Mr. U Madhava Rao
169.	Vignesh Sundaram	Implementation of basal III India	Dr.MeeraLal
170.	Aman Gulati	Enhancing quality and productivity of software engineering tables by applying data mining techniques	Mr. Chennupati Rakesh Prasanna
171.	Siva Praneeth M	Determination of thermophysical properties of phase changeMaterials	Dr. D Jaya Krishna
172.	Alok Singh	Ab initio study of amino acid adsorption on functionalized carbon nanotubes	Dr. K Sumithra
173.	Sambit Chatterjee	Defining models and mesh representation extracted from volume fraction data of multi-material models	Dr. Thatagata Ray
174.	Rathish. S.A.	Reducing the thermal stress in cement concrete pavement using cool pavements	Dr. V R VinayakaRao
175.	JubinArora	Android application development	Ms. RakheeAsin
176.	AsthaSethi	Efficiency enhancements in solar cells by nanoplasmonic techniques	Dr. KannanRamaswamy
177.	Kalavagunta Puneeth	Financial forecasting techniques	Dr.Shyam Sunder
178.	G V Sivarama Pavan Kumar	Effect of stock exchange on Indian economy	Dr. Shyam Sunder
179.	HansogeNitin Krishnamurthy	Mechanical properties and prediction of flow stressof austenitic stainless steel 304 and 316 at elevatedtemperatures	Dr. Amit Kumar Gupta
180.	ManneSaivikram Reddy	Design and analysis of assymetrical buildings	Mr. Venu
181.	Akshay Ananthkrishnan	Development of alternate energy systems and hybridization design tools for sustainabl green cities	Dr. M Srinivas
182.	Desu Raghu Ram Karthik	Finite element simulation of deep drawing for austenitic stainless steel 316 using LS-DYNA	Dr. Amit Kumar Gupta
183.	Ch Sri Sai Subramanyam	Biomarkers for non communicable diseases	Dr. SumanKapur
184.	R. Prathihasth	Derivatves in Forex market and trend analysis in MCX market (agriculture)	Dr. P Lalitha/Dr. Kumar Pranav

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
			Narayan
185.	Anurag Roy	The role of market competition in maximization of consumer welfare	Dr. CH Yaganti
186.	KrithikaBeri	Building mobile phone applications using android	MS. Rakhee
187.	G Sharath Chandra	Developing a prediction model for P2P attacks	Dr. Hota
188.	KooramVenkat Sri Charan	Applications of image processing in digital forensics	Mr. DigambarPowar
189.	Mohammed Abdul RaheemKhizer	Digital signal processing	Dr. B V V S N Prabhakar Rao
190.	HarshitRastogi	Android app development : a music discovery and matching app	Ms. Rakhee
191.	GangulaManideep Reddy	Power electronics: motor control plus DC house	Dr. U MadhavaRao
192.	Murhar Pradyumna Bhalchandra	Financial derivatives in foreign exchange	Dr. P Lalitha
193.	PachipulusuVinod	Automatic classification of images using pattern recognition techniques	Dr. P K Thiruvikraman
194.	Suprabhath Kalahasti	Applied economics: a case of market forecast on anti-cancer drugs	Dr. P Lalitha
195.	Shakamuri Venkataramanarao	Study on surface friction of pavement quality concrete (PQC)	Dr. V R Vinayaka Rao
196.	Vijay Sridhar	P2P classifies design using machine learning and game theory	Dr. Hota
197.	AnuragVarma	DNA electronics	Dr. Souri Banerjee
198.	Bandhakavi Lakshmi Mani Sunder	Preparation and characterization of self-assembled biodegradable microparticles to deliver hydrophilic molecules	Dr. Vamsi Krishna
199.	KonkaRaviteja	The gauge/gravity duality	Dr. Sashideep Gutti
200.	Bolem Harish	Digital signal processing	Dr. Prabhakar Rao
201.	K.Satyanarayana	Intra industry trade in international trade	Dr. P Lalitha
202.	V.Ravish Kumar	Thermal studies of cement concrete pavements: an experimental study	Dr. V R Vinayaka Rao
203.	Prateek Jain	Bianchi type iii cosmological models with strange quark matter	Dr. Pradyumn Kumar Sahoo
204.	BuddiAnudeep	Fuzzy logic based decision making	Dr. K S Raju
205.	Tadikamalla Yeswanth	Finite word length effects in DSP	Dr. S K Sahoo
206.	VanamalaDeekshith	Cellular delivery of self-assembled nano/micro particles	Dr. Vamsi Krishna
207.	Girijala Ravi Teja	Design of stainless steel structures	Dr. ChanduParimi
208.	MuliUmesh Reddy	Manufacturing sector patterns & changes	Dr. B Madhavi
209.	G Bharat Venkata Rajendra Reddy	Advanced matrix analysis of structures	Dr. M V N Sivakumar
210.	Tirupati Mithun	Strength and durability of recycled concrete	Mr. Venu
211.	Thottingal RamachandranAmit	Issues in Indian economy: poverty and unemployment	Dr. Durgesh Chandra Pathak

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Suervisor</b>
212.	KotlaDheeraj Reddy	Applications of artificial neural networks in civil engineering	Dr. Jagdeesh Anamala
213.	ChallaSamyuktha	Design of optical-sensing circuit for color detection	Dr. Suman Kapur
214.	VedalaVikram	Standardizing functionalized matrix packaging into micro cartridges	Dr. Suman Kapur
215.	AnkitRustagi	Cloud computing and software as a service	Mr. Surender Singh Samant
216.	K SaiGokul	A Study of surface reconstruction algorithms from a point cloud data	Dr. Thatagata Ray
217.	Tanmay Deepak Shah	Electronics based hardware design area: Haptics, sensors and human – computer interaction	Mr. Chetan
218.	Kumara MouktikChittipeddi	Vascular systems biology laboratory	Dr. Jayati Ray Dutta
219.	SiddharthSrivastav	Organic thin film transistors	Dr. Jayanti Subbalakshmi
220.	AmrutaVasudevan	Investigating the complications of Alu elements in cellular	Dr. K Pranav Narayan
221.	IyerKarthik Ganesh	On large-N field theory	Dr. Sashideep Gutti
222.	VakulMohanty	Computational & Systems Biology	Dr. Hota
223.	Gopalakrishnan Srilakshmi	Analysis of thermodyne tanks in thermal energy storage applications	Dr. D Jayakrishna
224.	Upadhyayula Shanmukha Aditya	Digital signal processing	Prof. Yoganandam
225.	Nitesh	Quantum information & Quantum computing	Dr. K V S Chaitanya
226.	Rehan Mahmood	OFDM	Dr. Akhladiqbal
227.	Soham Pal	Quantum dissipative dynamics and Black-hole entropy	Dr. SashideepGutti
228.	Upadhyay Nikhil Sudhir	Design of Data converters for High speed and Low power	Dr. S K Sahoo
229.	ShruthiVishwanath	Economics, Developmental Policy and Pedagogical Perspectives on Primary Education	Dr. Meeralal
230.	ParulSamal	Undertake an In-depth study of Breton-Stone tech production process and yields of product code561, and conduct a technical root cause analysis, defining corrective actions for yield improvement, at pokarna engineered stone ltd.	Dr. Balaji Krishnamurthy
231.	LellaAshoka Vardhan	Mind controlled locomotion for the paralyzed	Dr. Yoganandam
232.	Akkiraju Kavyabharadwaj	FPGA based embedded boards design	Mr. Chetan Kumar
233.	Nikhil Jones Sambarapu	Data analytics research on a more cost efficient model than a dash board to implement BI, CI, MI	Dr. Aruna Malapati
234.	JaodandAmrutaDilip	Statistical properties of cosmic microwave background radiation	Dr. Sashideep Gutti
235.	BiswaPrasanna Mishra	Protein nuclear magnetic resonaner involving prion protens	Dr.Kannan Ramaswamy
236.	AkashAishwarya	Non-Linear dynamics	Dr. Y V D Rao

S.No.	Name	Topic	Suervisor
237.	AbhishekChandna	BLDC Motor drive	Dr. U M Rao
238.	Santhosh V Yellajosula	Study of polysiloxane based coatings for weather abicity and ageing	Dr.Balaji Krishnamurthy
239.	Abhiram M.V.S.P	Study of polysiloxane based coatings for weather abicity and ageing	Dr.Balaji Krishnamurthy
240.	J.V. Chaitanya	Operations research applications in Air traffic management	Prof. A Ramu
241.	G.Dinesh	Bug prediction models	Dr.N.L.Bhanu Murthy
242.	Parikh PriteshAnish	Fabrication and study of semiconducting nanowire devices	Dr. Sourı Banerjee

### ***Dubai campus***

243.	Ahmed A. Padela	Upconversion - Future scope for the present energy resource problems	Amaranath, R.
244.	Akshay Chawla	Design and implementation of suspicious e-mail detection framework using data mining techniques	Santhosh Kumar, V.
245.	Dey Shramana Subrata Kumar	Optimization of Fermentation Kinetics Using Substrates Derived from Processed Biomass Sources	Ramachandran, S.
246.	Ali Akbar Eski	Development of a unique equivalent circuit model of a 3 phase salient pole synchronous machine taking saliency into account	A.B. Chattopadhyay
247.	Nilay Ketan Doshi	Sensing of Surface Acoustic Waves by Electron-Photon interactions in Quantum Devices	K. K. Singh
248.	Satej Milind Wagle	Design and Implementation of Data mining techniques for improving medical image classification	Alamelu Mangai, J
249.	Priya Bajı Parappat	Object recognition for obstacle avoidance by aerial robots using image recognition techniques	Anand Kumar, R
250.	Akshay Dalmia	Economic Assessment of Biofuel Production from Waste and Agricultural Sources	Neeru S. Singh and Pushkala, M.
251.	Balasubramanian S	A Study on various power tools to improve its efficiencies	C. Periasamy
252.	Chindu .K. Mohasin	Factors influencing the investor behavior in the construction industry - Dubai	Aqila, R.
253.	Cijal Rahim Valiyakath	Composite Materials- Development and application on modern aircrafts	Muralidharan, B.
254.	Himanth Prathap	Mitigation of risks in the operation of dry gas seals installed in centrifugal compressors	Miller Jothi, N. K.
255.	Md. Rahebul Hasan	Vibration analysis and ride quality of elevator	R. Udaya Kumar
256.	Mohamadh Jameel M G B	Automation and development of BPDC Research and Consultancy activity tools	G. Vijaya
257.	Patel Niravkumar Mahendrabhai	Analysis of Lean and Green supply chain	Mallika Parveen, C.
258.	Prabhjot Singh	Use of Alcohol as an alternative fuel in diesel engines	Udaya Kumar, R.

S.No.	Name	Topic	Supervisor
259.	Senthilkumar M	Study on Ultrasonic inspection of TIG welded specimens	R. Karthikeyan
260.	Umasankar P	Study and analysis of voltage upgradation from 6.6KV to 11KV distribution power system network	K Nityananthan
261.	Syed Aslam Ahamed S	Design of flow analysis of the Gas turbine	C. Periasamy
262.	Khan Farhan Ayub	Effectiveness and Implementation of Negotiation Techniques	Shazi S. Jabeen
263.	Manojkumar. V.V	Analysis and Design of a Power System Protection Scheme	A.B. Chattopadhyay
264.	Chaparala Ramanuja Prasad	Study and Design of hybrid solar desiccant cooling system	A.M. Surendra Kumar

### First semester 2013-2014 (August 2013 to December 2013)

S.No.	Name	Topic	Supervisor
<b>Pilani Campus</b>			
1.	Anagh Pathak	Sensor applications using quartz crystal microbalance	Raj Kumar Gupta
2.	Nitin Varyani	Face recognition using principal component analysis	Raj Kumar Gupta
3.	Deepshikha Purohit	Synthesis of novel ionic liquid supported iodonium salt and its application in organic reactions	Anil Kumar
4.	Aditi Rawat	Synthesis of novel imidazo [1,2-a] pyridine based heterocyclic compounds	Anil Kumar
5.	Venkata Kishore Kilani	Design and synthesis of indolyl azoles based anti-cancer agents	Dalip Kumar
6.	Manasa G	The indian financial sector - an overview	R Chakrabarti, (Off Campus)
7.	Maharshi Vyas	Analysis of economic contribution of faith based organizations and volunteers in the indian diaspora of the united states	Femida Handy (Off Campus)
8.	Radhika Anand	Short term electricity trade forecasting for switzerland	Michael Graff (Off Campus)
9.	Vishal Mehta	Financial appraisal through balanced scorecard method: case study of select firms in tractor manufacturing industry in india	Omvir Chaudhry
10.	Resham Gandhi	High speed analog circuits for mobile communication.	V. K. Chaubey
11.	Animesh Misra	Design and simulation of ultrafast high-speed otdm networks.	V. K. Chaubey
12.	Bhavesh Kataria	Design & implementation of better & efficient designs in electrical switchgear.	Rajneesh Kumar
13.	Kapil Vatwani	An adaptive block pinning cache for reducing network traffic on clip mali-processors.	Nitin Chaturvedi
14.	Ishan D Munje	An adaptive cache architecture for reducing wait in memory hierarchy & cache coherence protocol implementation for multicore processors.	Nitin Chaturvedi

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
15.	Vinay Kumar B. R.	Design and simulation of a wireless network for university campus	G. Raghurama
16.	Pramod R.	A study on electronic behavior of cnt based fet.	Navneet Gupta
17.	Kriti Soni	Design and analysis of micro-cantilever based sensors for biosensing.	Navneet Gupta
18.	Bhutada Shrikant	Comparative study of various d-flip flop architectures in sub treshold region of operation.	Abhijit Asati
19.	S. Bhargav	Modeling digital asynchronous circuits using cntfet.	Anu Gupta
20.	P. Anand	Design of fir filter using adiabatic logic and compare the performances.	Anu Gupta
21.	Ishan Jain	Anthmatic generetor control using optimized fuzzzey logic control.	H D Mathur
22.	Vishv Mohan	Installation of variable frequency drivers in heavy power intensive electric equipments for energy conseruation.	H D Mathur
23.	Siddhant Agasti	Wi-fi over fiber.	Rahul Singhal
24.	Rajat Gupta	Wimax over fiber.	Rahul Singhal
25.	Akshay V Jain	Sinusoidal synthesis of sound using matlab.	Rahul Singhal
26.	Gogri Saumil Pankaj	Bsp generation using petalinux for pecanfigunable computing system.	Ashish Mishra
27.	Anuj Dubey	High level synthesis using vivado design suitf.	Ashish Mishra
28.	Nikhil Mittal	Emg controlled robotic prosthesis for rehabilitation	B K Raut
29.	Akshit Singhvi	Fir filters implementation using rms.	K Srinivas Reddy
30.	Babandeeep Singh Walia	Study of dc-ac convertors.	K Srinivas Reddy
31.	Saumya Vij	Fir filters design using evolutionary approaches.	K Srinivas Reddy
32.	Ankur Kumar	Iris based biometric identification system.	Abhijit Asati
33.	Dhananjay Shrouty	Risc architecture for aes encryption and decryption.	S Gurunayanan
34.	Deepika Bablani	Design of a low noise, low power, implantable neural secording circuit.	Sachin Maheshwari
35.	Aparna Arun	Cache coherence in mulicore processors.	Pawan Sharma
36.	Sahila Agarwal	Power optimization techniques for risc architectures.	S Gurunayanan
37.	Abhinav Gupta	Exploration of cnt fets in designing of high performance digital circuits	Snehlata
38.	Makhijani Bharati Lalchand	Noise analysis of plls	V.K.Chaubey
39.	Suvonil Chaterjee	Development of user interface for wearable computing derivers for individuals with hearing impairment.	Rahul Banerjee
40.	Bitul Sinha	Solar energy	Shireesh Balwant Kedare/ Manoj Soni
41.	Archit Raheja	"Internet of things" with a special focus on modal sensors.	Kumar Padmanabh/ G. Sesha Chalapathi

S.No.	Name	Topic	Supervisor
42.	Pulkit Khemka	Interfacing between zigbee module and fpga board.	Solamon Raju Kota/ Ashish Mishra
43.	Shashank V Rao	Theoretical models for molecular materials and solutions of correlated model systems for their electronic properties.	S. Romasesha/ Abhijit Asati
44.	Anirudha S Bhat	Spintronic device modeling and applications	Pinaki Mazumder/ Anu Gupta
45.	Kaustubh Sakhalkar	Univalent functions in the dynamics of viscous flows with the discussion of the hele-shaw problem	Trilok Mathur
46.	Niranjan V.K.	Wavelet based methods for numerical solutions of partial differential equations	Rajiv Kumar
47.	Ashis Dash	Development of catalyst for fuel cells	Bikash Kr Jena
48.	Ayan	Solar refrigeration (absorption)	S K Singh
49.	Ayushman Kheterpal	Seismic design and detailing of multistorey building	G Muthukumar
50.	Aman Agarwal	Analysis of pollution potential of flyash and mine tailing by way of heavy metal mobilization and measures to immobilize the same	Sanghamitra Kundu
51.	Neeraj Maheshwari	Removal of iron from spent pickling liquor	Anupam Singhal
52.	Sourabh Bhati	Regional scale irrigation water management using gis	Anupam Singhal
53.	K. Prudhvi Krishna	Bending analysis of laminated composite plates	Shuvendu Narayan Patel
54.	Tippireddy Ravi Teja Reddy	Buckling analysis of laminated composite plates	Shuvendu Narayan Patel
55.	Ravi Ranjan	Conditions for facilitation in consumer-resource systems	Sumanta Bagchi
56.	Divyanshi Srivastava	Intron mediated regulation of Mono-allelic gene expression involved in antigenic variation in <i>plasmodium falciparum</i>	Juan M. Vaquerizas
57.	Avantika Gupta	Identification of genes responsible for conferring growth advantage to the Cells mutant for the tumor suppressor pten	Hugo Stocker
58.	Manaswi Raghurama	Variation in the sequestration of carbon and nitrogen in soils with change in vegetation and depth: a study in the nilgiri mountains, india	Mahesh Sankaran
59.	Anirvan Komath Majumdar	3-d polymer nanocomposite scaffold for bone tissue engineering	Kaushik Chatterjee
60.	Yash Vakilna	Cloning and expression of a highly expressed <i>vir c</i> subfamily gene from <i>plasmodium vivax</i>	A.K. Das
61.	Prakshi Choudhary	Performing valuation of a company in oil and gas sector using various valuation methods	Amit Jain/ Rakhee
62.	Nishank Warshney	Empirical assessment of right to education act	Ankur Sarin/ Shivi Agarwal
63.	Khushboo Chotia	Quantitative analysis of social networking websites' usage in relation to social processes among students in the contemporary scenario : An empirical inquisition	Tanu Shukla/ C. B. Gupta



<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
64.	Aatman Vora	Empirical investigation into pricing of life insurance products across indian insurance markets	Anil Bhat/ Chandra Shekhar
65.	Nitin Varyani	Face recognition using principal component analysis	Raj Kumar Gupta/ Javid Ali
66.	Manisha Rana	Measuring the effectiveness of SHG's (self help groups) in india : A statistical approach	Pusp Lata/ Trilok Mathur
67.	Mahan Singh Sekhon	E-Learning: Practices & percetions	Pushplata
68.	Akhil. J.V	Freedom, intellectual struggle, non-violences	Harikrishanan.G.Nair
69.	Ashok Saini	Soft skill development	Virendra Singh Nirban
70.	Shantanu R Bhate	Study and Implementation of algorithms used for robot path planning	J. P. Misra
71.	Kartik Pepakayala	"Analysis and Visualization of Histological Images"	Sundaresan Raman
72.	Vineela Meghana Ramadana	Multimedia Information Retrieval using semi supervised learning	Poonam Goyal
73.	Ashwin Menon	Design and implementation of an online test system	S. Balasubramaniam
74.	Prakash Yadav	Estimation of video quality based on frame analysis	Mukesh Kr. Rohil
75.	Krishna Aditya G	Dynamic Class Classificatin	Navneet Goyal
76.	Anirban Mukherjee	Setup of multi node cluster and proposal of dynamic priority scheduler in hadoop	Yashvardhan Sharma
77.	Kaushik Gudapati	Parallelizatioin of support vector machines	Kapil
78.	Kirti Bhandari	Automation of Analysis of paintings	S. Balasubramaniam
79.	Udbhan Prasad	A distributed computing framework for Data Mining	S. Balasubramaniam
80.	A Surya Prashanth	A study on pattern formation by a swarm of mobile robots	J. P. Misra
81.	P. Ravi Teja	Compiler for A new Distributed Computing Framework for Data Mining	Navneet Goyal
82.	Saurabh Kumar	Investigations into design, implementation and deployment aspects of a multi tenancy academic hybrid cloud computing environment from and end-users perspective.	Rahul Banerjee
83.	Aman Agarwal	Software testing using data mining techniques, and graph algorithms	Nirmal Gupta
84.	Abhinav Duggal	Application of machine learning algorithms in software verification and validation	Nirmal Gupta
85.	Nomchin Banga	Investigations into design, implementation and deployment aspects of a multi tenancy academic hybrid cloud computing environment	Rahul Banerjee
86.	Arjun R. Kailash	Ensemble Clustering	Navneet Goyal
87.	N. Shashank	Developing a programming language for a new distributed computing framework for Data Mining	Navneet Goyal
88.	B. Abhinav Ramana	Concept based hierarchy construction	Poonam Goyal

S.No.	Name	Topic	Supervisor
89.	Tarun Sharma	Study of prediction algorithms for climate data using multi-agent systems	Yashvardhan Sharma
90.	Anjali Singh	Use of Concurrent Data Structures for parallel implementation of Density based Clustering Data Mining Algorithms	Navneet Goyal
91.	Rishabh Dixit	Multi Modal Supervised Image Classification	S.P. Vimal
92.	Juhi Kapoor	Implementation of lean manufacturing using value stream mapping	K S Sangwan
93.	Rajive J. Nagpal	Implementation of lean manufacturing using value stream mapping	K S Sangwan
94.	Rathi Roshan R	A Review of Cellular Manufacturing Layouts	V.K.Mittal
95.	Suhas Karanath	Exergy Analysis of solar thermal System	M.S.Soni
96.	Shwetal Karade	Mechanical Engineering Design and Failure Analysis	M S Dasgupta
97.	Krishan Lakhandani	Design and Optimization of a closed loop supply Chain Model	Anil Jindal
98.	Mohammad Shakir	Supply Chain Management	M. Dwivedy
99.	Aditya Kashi	Numerical analysis of Instabilities in Fluids	Sai Jagan Mohan
100.	Anuj Singh	A Literature Review and gap Analysis of Closed Loop supply Chains	Anil Jindal
101.	Kartik N. Sankar	Study of a chosen system in the domain of multi-Body dynamics	Sai Jagan Mohan
102.	Monali Barbate	Theoretical and mathematical modelling of shock waves	Sai Jagan Mohan
103.	Jitin Juneja	Design and analysis of high temperature thermal energy storage & heat transfer fluids using metallic phase change materials for indian solar system	P. Srinivasan
104.	Shankhanath Raychoudhuri	Design of agile manufacturing system	S. Routroy
105.	Mitul Salecha	Socially Responsible Investment Index for Indian Market	Amit Garg/K S Sangwan
106.	Anand Gadiya	Supply Chain Management	S. Routroy
107.	Prayash Adhia	Fluid-Structure interactions	J.S.Rathore
108.	Snigdha Nigam	Performance measures in lean healthcare	R P Mishra
109.	Viknesh N	Developing a reliability model for organizations	R P Mishra

#### ***K K Birla Goa Campus***

110.	Bhala Nilesh Narendrakumar	Face Recognition by discriminant analysis	Dr.Anita Agarwal
111.	Deepanshu Mehndiratta	Development of a Mass Download Scheduler	Prof.D.M.Kulkarni
112.	Udit Dewan	Molecular Dynamics Simulation Study of Interactions in nanoparticles	Dr.R.N.Behera
113.	Dhilbar Roshan	Business model for a technology enabled material and child healthcare delivery in low resource settings	Prof. Mridula Goel

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
114.	Kaushal Ajay Sapre	Aesthetic Visualisation in Geometry	Dr. Toby Joseph
115.	Saubodh Bhunudas Kolhe	Study of cloud abuse in India	Dr.Reena Cheruvalath
116.	Bhuvan Mohan singh Rawat	Investigation of Proteinfolding problem	Ram Prasad Joshi
117.	Akhil Singh	Building optimisation and approximation algorithm to form groups	Ram Prasad Joshi
118.	Mukesh Kumar	Facilitating expense management and quick payments through molule app	Prof.Mridula Goel
119.	Shivam	Development of an application for virtual walk using augmented reality	Mr.Sreejith
120.	Soniya Santosh Mantri	Investigation on multilevel inverter topologies for active power filters	Dr.Sheron Figardo
121.	Dipti Sengupta	Development of Pervasive Computing Using the Alljoyn Framework	Prof.Neena Goveas
122.	Shubham	Implementation of technology based healthcare solutions in rural areas	Prof.Mridula Goel
123.	Sharang Sharma	Breeding & case study of Go	Ms.Pinky Pawaskar
124.	Yafis Aijaz Sahaf	Study of mechanics and materials involved in bio-implants	Prof.D.M.Kulkarni
125.	Vishal Ahuja	Effect of fumed silica on mechanical properties of LLDPE	Dr.Sachin Waigaonkar
126.	Abhishek Arun	The Indian Genetics Industry and opportunities in the Japanese Pharmaceutical Market	Dr.R.P.Pradhan
127.	Aditya Asati	Study of Mechanics and Materials involved in Bio-Impants	Prof.D.M.Kulkarni
128.	Tejendra Singh	Study of Synthetic Curves using Matlab	Prof.D.M.Kulkarni
129.	Himanshu Gangal	Dynamics of a Hodgkin neuron forced by sinusoidal current	Prof.Gaurav Dar
130.	Utkarsh Choudhary	X-ray spectroscopy of Neutron stars and Low mass x-ray Binaries	Dr.Tarun Kumar Jha
131.	Isha Garg	Microfinance as a social welfare function for poverty alleviation	Mr.Swagat Kishore Mishra
132.	Rohit Sant	Implementation of network protocol stack for underwater acoustic sensor network	Sarang Dhongdi
133.	Vemaure Lakshami Narasimahavihari	Study of professional ethics of teachers in higher education in india	Dr. Reena Cheruwala
134.	Adarsh N. B	Enhancement of performance of OFDMA through Genetic Algorithm	Nitin Sharma
135.	Pritam Kumar Singh	Identification of deleterious non synonymous single –Nucleotide Polymorphism for Human Diseases	Dr.Sukanta Mondal
136.	Amandu Shivakrishna	Numerical solution of system of volterra Integro differential equation	Dr. Veeniti Kumar Singh
137.	Abdul Mubeen	Economics of Football	Dr. Debasis patnaik
138.	Narasimhan	Investigation into the coanda effect :The laminar Separation Bubble	Dr. Shibu clement

S.No.	Name	Topic	Supervisor
139.	Kurcheti Neha Kiran	Evaluation of the Pathological effects of moon jellyfish tentacle extract and star fish toxin on freshwater edible fish	Prof. Dibakar Chakraborty
140.	Saurabh Khare	Study of keccak (SHA 3) and its application for malware selection	Dr. S. K. Sahy
141.	Akshay Satish Kulkarni	Synthesis of metal, conducting polymer and metal oxide nanostructures	Dr. E. S. Kanan
142.	Thomas Abu C	Introduction to algebraic geometry; study of varieties	Dr. Prasanna Kumar
143.	Souvik Dutta	Viral Corfficient and Behaviour of various phase transitions	Dr. Tobey Joseph
144.	Tarun Khanna	Nucleation in Charged Colloidal Suspension	Dr.Axel Arnold
145.	Shobhit Sharma	Investigation of the sensitivity of the snot experiment to the low energy (pp) neutrinos	Alex Wright
146.	Pradyumn Agarwal	Variations in Nonlinear Composites Mechanics of Cornary Vessels	Prof.Namrata Gundiah
147.	Parkhe Krishna Kant	Prediction of crack propogation using variational asymptote method	Prof Dineshkumar Harursampath
148.	Debajyoti Datta	Analysis and synthesis of Langues for the Ilhaire Project	Catherine Pelachaud
149.	Siddharth Deshpande	C.R.E Modeling of underground coal gasification channel	Dr.Vivek V.Ranade
150.	Siddharth Gupta	Optimizing algorithm for connected component Labeling	Dr.Ankit Agarwal
151.	Nisheet Desai	$3 \times 3$ Lattice and its two step melting in triangular lattice systems	Professor Kedar Damle
152.	Gauri Mangalgiri	Application of MEMS technology to MM wave Devices	Dr.Steefen Kurth
153.	Pallavi Lengde	Prediction and Analysis of Conducted Electromagnetic Compatibility of printed circuit Board	Mr.Shantann Choudhary
154.	Priyans Murarka	Development of multiple prototype for indoor localization	Dr. Hari
155.	Milind Shyani	Blackhole entropy and instantons in guage field theories	Prof Ashok Sen
156.	M.Preetam Shivaram	Implementation of a high reuction clock de skew buffer on the FPGA	Dr N C Shivaprakash
157.	Akshay R K	Implementation of Computational Auditory Scene Analysis (CASA) Tasks for Robot Audition	Prof.P.P.Jonker
158.	Neil Rajesh Dhruva	Crossing the Deadline:An Automata-based Hard Real –Time Guarantee	Pratyush Kumar
159.	Anirudh Wodeyar	Braintone Extending Our through Neurofeedback	Dr Rajesh
160.	K Surya Kiran	On RG Flaws and entanglement entropy in orbitrary diamensions	Dr Aninda Sinha
161.	Anwaya Aras	Modeling Structural and Statistical Relationship in Chord Sequences withing musical pieces	Dr.Fredenic Bimbot

S.No.	Name	Topic	Supervisor
162.	Divyakumar Badheka	Design of High speed & bit 250 MSPS analog to Digital converter using 0.18 micor m CMOS Towre jazz library	

### **Hyderabad campus**

163.	Gokulnath.S	A comprehensive study of internet startups that apply the lean startup model for product development and customer acquisition	Dr. P. Lalitha
164.	Utkarsh Mehrotra	Evaluation of Projects under J.P. Morgan	Dr.Meeralal
165.	Ishan Aggarwal	Econometric analysis of Indian business trends	Dr.Sudatta Banerjee
166.	Sahil Panjwani	Quantitative study of finanacial markets	Dr.Shashideepgutti
167.	Arvind N	Stop gaps in magnetic fields and their applications	Dr. Kannan Ramaswamy
168.	T. Siva Pradyumna	Studies on detection and characterization of light	Dr. Kannan Ramaswamy
169.	Arun R	On the Time Energy uncertainty relation	Dr. Sashideep Gutti
170.	L.Akash	Food bill Debate in India	Dr. Kannan Ramaswamy
171.	Shashank Shrivastava	Capturing the scientific and Inventive activity in nanomaterials	Dr. Kannan Ramaswamy
172.	Soanpet Abhik	Design of heat pipe cooled concentrated photovoltaic system in indian conditions	Dr. M. Srinivas
173.	Arman Mohammad Khan	Finite element modeling of forming of tailor-welded blanks(TWB) of dissimilar metals	Prof. S.P. Regalla
174.	Kasilanka Sriranga Thej	Use of GIS mapping techniques to map energy resources	Dr. S.S. Deshmukh
175.	Naveen kumar Reddy karnati	Life cycle analysis of solar and biomass systems	Dr. S.S. Deshmukh
176.	Kommireddy Satyasai	Theoretical performance analysis of hybrid CPV/ thermal solar energy harnessing systems	Dr. M. Srinivas
177.	A.Nikhil	Natural convection with surface radiation in channel flow	Dr. S.S. Deshmukh
178.	Damarla Harika Rao	Development of an energy optioneering tool for the developers	Dr. S.S. Deshmukh
179.	Sriram K	Flow control technologies and its application using Computational fluid Dynamics	Dr. N. Jalaiah
180.	Turlapati Pratyusha	Electronic and Band structure calculations of substituted cyclo thiophenes	Dr. Sumithra
181.	Atul Govardhan.M	Investigation of magneto optical effect in composite magneto-plasmonic nanostructures for sensing application	Dr. Kannan Ramaswamy
182.	Chinmay Bhattar	Implemtation of Thick level sets	Dr. Chandu Parimi
183.	Anirudh Kode	Large deformation in soft tissues	Dr. Chandu Parimi

S.No.	Name	Topic	Supervisor
184.	VarunSoni	Multiojective optimization of resources operations for optimal irrigation planning	Dr. Vasan
185.	Ayyagari Brahmaji Yaswanth	Experimental and numerical investigations for mechanical and thermal properties in self compacting concrete with manufactured sand	Dr. Vinayak
186.	Thota Pavankumar	Experimental and numerical investigation on mechanical and thermal properties for M40 grade in self compacting concrete with natural( River) sand	Dr. Vinayak
187.	Vijayasimha Vellanki	Interface electronics for smart grid operation from localised generator	Prof. U M Rao
188.	Kutati Gokul	Verification of mathematical and experimental models for Arterial Stiffness	Dr. M.B. Srinivas
189.	Kurella Venkata Sai Sashank	Design of low power/energy DSP architectures for wireless communications	Dr. Syed Ershad Ahmed
190.	Gunda Karthik	Determination of Arterial stiffness through mathematical modeling and ECG/ PPG measurements	Dr. M.B. Srinivas
191.	D. Abhisheksharma	Speech activated domestic automation system	Dr. B. Prabhakar Rao
192.	Gottipati Sumanth	Study of history of Epistemology and evaluation of scientific method	Mr. Shamuel Tharu
193.	Mathews M John	Investigation of magneto-optical effects in composite magneto-plasmonic nanostructures for sensing application	Dr. Kannan Ramaswamy
194.	Vljay Narayan	Problems in supply chain management global supply chain networks	Prof. A. Ramu
195.	R. Prashanth	Cosmology	Prof. M S Radhakrishnan
196.	Mehta Sneha Uday	A comparative study of rendering techniques	Dr. Tathagata Ray
197.	Blswajeet Mishra	Using Bayesian network for performance and capacity management in data centers	Dr. N.L. Bhanumurthy
198.	Pratik Maheshwari	Advantage of cloud computing ine-commerce	Dr. C R Hota
199.	Dhruvgambhir	Reduction of FFA Content in Jatrophaoil: Pretreatment for production of biodiesel	Dr. Asma Ahmed
200.	Nikunj Dudani	Design, Analysis and implementation of a Cryogenic stage for combined cryofixation and optical microscopy of biological samples	A. Ramesh
201.	Vedant Kakarania	Technology of engineered stove and improvement in multicolour product by studing spot size variation	Dr. Balaji Krishna Murthy
202.	Dhara Venkata Gayatri	1. Carbon capture by chemical looping combustion 2. Model Identification of ' Nitration of Toluene' by incremental identificaton	Dr. I. Sreedhar
203.	Khushboo Gupta	Lopinavir loaded chitosan nanoparticles invitro and invivo evaluation	Mr. Rahul Vats
204.	Shruti SinghKakan	Synthesis and screening of some anti-tubercular compounds	Dr. Sriram

S.No.	Name	Topic	Supervisor
205.	J Sathvikreddy	Impact of training on salesmans performance and applications of it to pharmaceutical industry	Dr.Sriram
206.	Seedarala Sahithi	Evluation of New inhibitors for' HSP 90' and MEK	Prof. P.Yogeeswari
207.	Santosh Peddi	Copper-catalysed deearborylativetriflowromethylation of propargylinebromofflourosetates : a	Dr. Sriram
208.	Venkatakrishna Teja Vemula	Trade Relations of India	Dr. Sriram

### ***Dubai Campus***

209.	Adarsh Venkataraman G	Theoretical Modeling & Numerical Simulation of Interaction Between Faraday Waves & Cell Encapsulating Hydrogels	S. Swaminathan
210.	Anshul Singhal	Design and Optimization of Formula SAE Car for FSAE – Michigan 2014	C. Mallika Parveen
211.	Bhargav Mallampati	Analysis of Routing in VLSI circuit implemented using Synopsys tools	A. R. Abdul Rajak
212.	Deepan Kishore Kumar	Microfluidic Platform for Multiple Pathogen Detection	S. Swaminathan
213.	Menon Shweta Ramesh	Parametric study and the flow stability in a Boiling channel	C. Periasamy
214.	Nirmohi Viraj Devasthale	Attitude Control of Small Satellites	R. Mary Lourde
215.	Pandit Shruti Niranjan	Design of State Feedback Control System with Specific Application	A. B. Chattopadhyay
216.	Raghav Shrivastav	Study and Design of Hybrid Electric Vehicles and Ecological Vehicles	A. M. Surendra Kumar
217.	Rohitash Gupta	Application of and Security issues in Cloud Computing	Nand Kumar, S.
218.	Sagar Kamra	Design and Analysis of an intake manifold of an FSAE car	R. Udayakumar
219.	Suchita Gera	Development of Pretreatment Methods for Biomass Based Substrates for Fermentation Process	S. Ramachandran
220.	Vasudevan R	Temperature Control Using Microcontroller	R. Swarnalatha
221.	Vivin Karthik	Estimation of Above Ground Biomass of Trees in BPDC	K. Geetha
222.	Zubair Ahmed N	Study of STEM cells in tissue repair, regenerative medicine and related diseases	D. J. Shariff

## LIST OF PROJECTS COMPLETED UNDER HIGHER DEGREE DISSERTATIONS DURING THE YEAR 2013

### Second Semester 2012-2013 (January 2013 to May 2013)

S.No.	Name	Topic	Supervisor
<b>Pilani Campus</b>			
1.	Savini Sonavaria	Automatic identification of bird species from recordings using sound segmentation and classification	Raj Kumar Gupta
2.	J C Joshi	Biometric access control using face recognition technique.	K K Gupta
3.	Dheeraj Suri	Comparative study and experimental implementation	Dheerendra Singh
4.	Ashok Kumar	Design, modeling and characterization of power mosfets in uh-sic using silvaco tcad tools.	Dheerendra Singh
5.	Bharat Kumar Potipireddi	Automated ndl generation and semicustom asic design of different multiplier architectures.	Abhjeet Asati R.
6.	Rajandekar Ajinkya Shashikant	Design and simulation of polymeric electro-optic modulator.	Rahul Singhal
7.	Maj. Shreesh Bahuguna	Design and simulation of micro strip broadband antenna.	Rahul Singhal
8.	H Anirudh Upendar	Ultra low power adiabatic circuit semi-custom design.	Anu Gupta
9.	Makwana Ishit Nikunj	Fpga implementation of dynamically reconfigurable baseband modulators & demodulators for software defined radio.	Kota Solomon Raju/Anu Gupta
10.	Bhamidipalli Hari Sasank	Real time scheduling in type-1 hypervisors for multicourse systems.	Mayuri Digalwar
11.	Bhawani Shankar	Study of silicon carbide based device technology for high power electronics applications	Jamil Akhtar
12.	Satpute Nitin Ramdas	H264 video decoder fpga realisaition of h264 video decoder.	S K Nanoy
13.	Sonavaria Savini Arvind	Automatic identification of bird species using sound segmentation classification.	Raj Kumar Gupta
14.	Swathi V.Sharma	Study of dynamic response of single –phase grid connected inverters.	Rahul Verma
15.	Gaurav Rathore	Study of dynamic response of single –phase grid connected inverters.	Rahul Verma
16.	Kedar Kunal Purushottam	Development of support package (bsp) for dynamic partial reconfigurable system-on-chip platforms.	Kota Solomon Raju
17.	Akshay Adiga	Development of support package (bsp) for dynamic partial reconfigurable system-on-chip platforms.	Kota Solomon Raju
18.	Naga Vinay Kumar T	Image computing of the ophthalmic images for the detection of glaucoma	Mohanashankar S.
19.	Debajit Dey	Study the role of endosomal rab gtpase effectors: rabenosyn 5 in melanosomal biogenesis	Subba Rao Gangi Setty



<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
20.	Aakanksha Bansal	The function of tbh positive neurons in behaviour relection	Henrike Scholz
21.	Utsav Bhargav	Study of surfactant generated based foam stability.	Pradipta Chattopadhyay
22.	Gayathri Gangadhara Bindu	Removal of heavy metal using biofiltration.	Suresh Gupta
23.	Nitin J	Control structure selection for dynamic multivariable system.	Amit Jain
24.	Ashish Ghanasham Sadaphal	Modeling, simulation and control of fluidised catalytic cracking unit(fccu).	Hare Krishna Mohanta
25.	Yantrapati Taraka Revnath Kumar	A comparitive control study of reactive distillation of methyle acetate.	Hare Krishna Mohanta
26.	Amin Krunal Girishbhai	Development and comparison of empirical models using statistical and soft computing technique.	Ajaya Kumar Pani
27.	Purva Shyamlal Goel	Experimental study on the pyrolysis bioman and recovery of chemicals feom bio-oil.	Pratik N Sheth
28.	Ingle Saket Anil	Modeling studies on metallocene catalyzed olefin polymerization.	Nikhil Prakash
29.	Amritendu Bhuson Ghosh	Separation of copper metal ion from industrial waste water using reactive extraction.	Dipaloy Datta
30.	Sudhir PR	Fdi in retail and its impact in market with respect to customer perspective	S.Routroy
31.	Vinay Kumar Singh	Project management in globalized economy	Omvir Choudhry
32.	Makarand Wagale	Development of real-time optimal bus scheduling and timetable with headway control model for indian cities	Ajit Pratap Singh
33.	Wagh Abhijit Pratap	Development of a decision support system for different pavement design techniques using multi-criteria decision making	Ajit Pratap Singh
34.	Parnika Shrivastava	Water quality management of a river basin using fuzzy synthetic evaluation approach	Ajit Pratap Singh
35.	Narendran R	Review on code of practice on offshore pile and fixed platform design	Ravi Kant Mittal
36.	Ankit Mehta	Optimizing open pipe network using genetic algorithm and gis for rainwater harvesting scheme	Rajiv Gupta
37.	Puneet Sharma	Study on durability of concrete due to effect of carbonation	Dipendu Bhunia
38.	Gourav Thakur	Determination of depth of carbonation	Dipendu Bhunia
39.	Sreeram B	Determination of strength of concrete due to effect of carbonation	Dipendu Bhunia
40.	Arun Kumar G N	A case study on design of underground metro stations	Dipendu Bhunia
41.	Himanshu Chawla	Dynamic characteristics of laminated composite plates,: an experimental study	S. B. Singh
42.	Mukund Lahoti	Development of innovative ductile frp systems for rehabilitation of masonry structures	S. B. Singh
43.	B. Rahgvendra	Application of element free galerkin methods to solid mechanics	S. B. Singh
44.	Gaurav Watts	Hygrothermomechanical response of a laminated composite beam	S. B. Singh

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
45.	Omkar Sukumar Powar	Dynamic analysis of shear wall by finite element method	Manoj Kumar
46.	Tanmay Gupta	Finite element analysis of skew box girder bridges	Manoj Kumar
47.	Amrita Agrawal	Stdy on designing healthcare delivery system for primitive vulnorable tribe groups	Madhulekha Bhattacharya
48.	Prashali Bansal	Developmental biology	Hugo Stocker
49.	Amit Anand	Analytical and bioanalytical method development for a candidate drug and its metabolite.	Sunil Kumar Dubey
50.	Singh Amit Rajnarayan	Design and analysis of gas cooler for transcritical co2 refrigeration cycle	M.S.Dasgupta
51.	Abhishek Chatterjee	Periodic solution in paramater space of asymmetric mathieu equation	Amol Marathe
52.	Aniruddha Guha	Predictive modelling of a hybrid solar pv/t system using rsm	P. Srinivasan
53.	Vaibhav Rao Vangara	Simulation of visco-elastic fluids using finite element methods	Sai Jagan Mohan
54.	Sandeep Kumar	Numerical simulation of turbulent flow	Sai Jagan Mohan
55.	Rangasai M C	Development and investigation of thermal characteristics of biodegradable foams	S. B. Ghosh
56.	Madhu Seetharaman S.	Superhydrophobic surfaces based on carbon soot	N.N.Sharma
57.	Kishore Suravajhala	Analysis of functionally graded beams and plates	Sharad Shrivastava
58.	Bhosale Subhash Hanmant	Development and characterization of hybrid biocomposites	S. B. Ghosh
59.	Pawan Aggarwal	Melnikov analysis of piecewise linear mathieu's type vander pol oscillator	Amol Marathe
60.	Singh Vismay Vinodkumar Saroj	Morphological study & mechanical characterization of bio-based foams	S. B. Ghosh
61.	Sukal Yogesh Dilip	Study the limit cycle oscillations in aircraft wing due to flutter	Sai Jagan Mohan
62.	Aditya Shyamrao Deshpande	Finite element vibrational analysis of sandwich plates	A.K.Jalan
63.	Shambhu Singh Senger	Finite element analysis of functionally graded material structures (beam and plate)	S.B.Singh
64.	Killedar Digambar Satappa	The study of postbuckling behaviour of composite plate under inplane compression and shear	S.B.Singh
65.	Rahul Singh Kotesa	Mathematical modeling of flagellated nanoswimmers and their experimental investigation	N.N.Sharma
66.	K.V. Lakshminarayana	A study and analysis of effect of different cooling on cutting forces, surface finish and dimensional accuracy in turning aerospace material	A.K. Digalwar
67.	Cuddapah Venkata Sunil Kumar	Identification and quantification of performance parameters in agile manufacturing system - applying fuzzy dematel technique	S. Routroy

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
68.	Sampath Kumar Rachakonda	Multiple scales analysis of periodic structures	Amol Marathe

### ***KK Birla Goa Campus***

69.	Hemant Rathore	Data Aggregation and Network Security in Wireless Sensor Network	Dr. Neena Goveas
70.	Gajraj Singh Rathore	Using WSN And Network Development for Underwater Wireless Sensors	Dr.K R Anupama
71.	Iniyar Thiruselvam N	Integration of Clinical Study Based Wear-Sliding Track and Load Curve for Human Gait Cycle as per ISO 14242 for a Ball-on-Disc Tribometer	Dr. D M Kulkarni
72.	Ranjit Kumar T A	Failure Analysis of a Wipe Film Evaporator Assembly	Dr. B.J.C. Babu
73.	Pallvee Singh	CFD of Flow Nozzles in Trickle Bed Reactor	Dr. Ashok Khanna
74.	Davis Mathew Kuriakose	Automated Review System"	Prof. Ganesh Ramakrishnan
75.	Prateek Bindra	Dark Current Analysis In Cmos Image Sensors	Dr. Mukul Sarkar
76.	Devesh Chandra	Designing of Microwave Circuits to Probe Nano-Mechanical Resonators	Dr. Ananth Venkatesan
77.	Akshat Tyagi	A Pilot Scale Study of Struvite Precipitation and Ammonium Sulphate Production from Cow Urine in Batch Process	Dr. Srikanth Mutnuri
78.	Aditya Deshpande .	To Understand the Regulation of Expression of MCL1 (DNA Pol $\alpha$ Associated Factor) by Sirtuin HST4 in Schizosaccheromyces Pombe	Dr. Devyani Haldar
79.	S Riaz Basha	Assesment of Inhibitor Concentration of Different Malarial Drug	Dr.Anjali M.
80.	Raghavendraprasad Suryavanshi	A Pilot Scale Study of Struvite Precipitation and Ammonium Sulphate Production from Cow Urine: Continuous Process.	Dr. Srikanth Mutnuri
81.	Rashmi Rekha Dash	To Study Diversity of Malarial Parasites in India	Dr.Anjali M.
82.	Subhadra Dalwani	Characterization of Cells From Rat Heart Valves	Dr Gopal Pande
83.	Vyas Dhruv Maheshbhai .	Design and Development of Cross Layered Protocol Stack for Condition Based Pipeline Monitoring System Using WSN	Prof. K.R. Anupama
84.	Siddharth Sindhu Sahu	Cross Layered Protocol Stack Using Wireless Networks	Prof. K.R. Anupama
85.	Philip George	Design and Implementation of an Efficient Architecture for Empirical Mode Decomposition	Dr. A.Amalin Prince
86.	Aneet S. Raj	Comparative Study of Fuel Economy Simulation for Heavy Duty Truck on AVL Cruise and Autonomie	M. Sreedhar Babu

### Hyderabad Campus

S.No.	Name	Topic	Supervisor
87.	PavanPuranik	Simulation of elevated temprature tensile tests using different material models in ANSYS	Dr. Amit Kumar Gupta
88.	B. Anusha	Design and Implementation of an X-band RADAR Jammer Transmitter	Dr.Yoganandam
89.	OmendraChauhan	Design and Implementation of an X-band RADAR Jammer reveiver	Dr.Yoganandam
90.	AtulPawar	Structure and functional characterisation of Plasmodium felciparum serine repeat antigen 5(SERA5) protein	Dr.Vidya Rajesh
91.	B.VineelKumar	Fragility based seismic vulnerability assessment of Reinforced concrete structures	Dr. M V N Sivakumar
92.	Nikhil Tatke	Elastovisco-plastic Analysis of Sheet Metal forming	Dr. S P Regalla
93.	M. KarthikTeja	Experimental and Numerical studies of Residual stresses in Friction-stir welding	Dr.JeevanJaidi
94.	Paromita Nath	Loads on structures due to wated during earth quake	Dr.ChanduParimi
95.	Anup Darshan P	Design optimisation of cutting parameter for Tuning operations based on the Taguchi method	Dr. N S K Reddy
96.	Shika Rathi	Numerical studies in multiphase fluid flow through porous media	Dr.JeevanJaidi
97.	Harshita D	Hetcrologous gene expression in Lactobaillusbrevis, Lactobavillesplantarum& its co-culture. Extraction & Purification of lipasc enzyme & itsimmolization	Dr.Jayati
98.	Uday SaiRanjanAvula	Pharmacolanetic interactions of tenofouir with same PGP inhibitors	Dr.PunnaRao
99.	Vikas Dalal	Design characterization and pharmacokinetic evaluation of nanoparticles of anti-retroviral drug lopinavir	Dr.PunnaRao
100.	Jay Patel	Analysis of fiber/particle reinforcel polymer made by additive manufacturing effect of fiber/particle size and effect of porosity	Dr. S P Regalla
101.	Teja Dasari	CFD in sports - Aerodynamics of a cricket ball	Dr.Jayakrishna D
102.	Ghazanfar Khan	Heatlines visualisation in complex geometices	Dr.Jayakrishna D
103.	Apoorva Verma	Development of primacy nepdo cycle culture infected with HCV from indian isolates and screen herbal antivirals against them	Dr.Sumankapur
104.	Mugdha Nigam	Anti-cancerous properties of henna	Dr. Kumar Pranav Narayan
105.	Pankaj	The study of flexural response of laminated flanged sections beams	Dr.VinayakaRao
106.	Naivedya Mishra	Adaptation of the Omega-K algorithm for high squint angles in synthetic aperure RADAR imaging	Prof. Yoganandam
107.	M. Ashwin	Performance enhancement of BLDC (Brushes DC) Motor drives using a fuzzy logic based contoller	Dr. U M Rao
108.	Y. PawanSastry	UVM based verification process for superscalar processor	Mr. Syed Ershad Ahmed

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
109.	N. Sri Krishna Yadav	UVM based verification process for superscalar processor	Dr.GeethaKumari
110.	Peeyush Pashine		Dr. Geetha Kumari
111.	Janapamula Jayasree	UVM based verification process for superscalar processor	Dr. K C S Murthy
112.	Deshpande Raturaj Ramesh	Application of computational fluid dynamics in prediction and analysis of non-Newtonian, pulsating flows using discrete element method (DEM) with emphasis on human blood	Dr.JeevanJaidi
113.	Vikramaditya Raj	Application Framework infrastructure for Microsemi FPGAs	Dr.ArunaMalapati
114.	V R Shankukhasundaram	Materail model characterisation for simulation	Dr. Y V D Rao/ Dr. S P Regalla

### ***Dubai Campus***

115.	Jarkko Lasanen	Study of Market Entry Strategy and its Success in International Business: Finnish Companies entering Norwegian Market	A. Srinivasa Rao
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### **Summer Term 2012-2013 (June 2013 to August 2013)**

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
<b><i>Dubai Campus</i></b>			
1.	Cherish Mani	Methodology to Reduce Weld Distortion during the Construction of Storage Tanks	A.M. Surrendra Kumar
2.	Eby Mathai	Optimization of weight of a crankshaft in an Engine	R. Uday Kumar
3.	Faisal Salim	Semantic Feature Representation Framework Using Neural Net	Jagadish Nayak
4.	G.B. Anuradha	Design and Develop an Android App for Virtual E-Medic System	M. Madijagan
5.	Gopalakrishna Prabhu	Analyzing and Selection of right Projects for Tendering for a Construction Company Based in UAE	Anand Kumar
6.	Henry Vivian	Design and Development of a analysis of a dual fuel combustion system for a diesel engine with an alternate fuel	R. Uday Kumar
7.	KA Akshaya Krishna	Marketing Research Strategy for IT Services Company	A. Srinivasa Rao
8.	Karish Manchanda	Numerical Analysis of Equity Valuation Methods.	Pushkala M.
9.	Lallan Kumar Dubey	Design and analysis of Piping network for Sewerage Water Line using ASTM and GRPS Standards	Mallika Parveen
10.	Nallamilli R Surendra R	Condition Monitoring and Diagnostic Analysis of Rotating Machinery in Cement Plant	M.V.N. Sankaram
11.	Navnith Ravindran	Modeling PM/BPSK Signals for Coherent Optical Transmission over Single-mode Fibers (SMF)	Anand Kumar, R.

S.No.	Name	Topic	Supervisor
12.	Paulman K.M.	Development of Business and Sales in UAEs Oil and Gas Sector for Overseas Electrical Manufacturers	Pushkala M.
13.	Reenu Anne Joy	Design and Simulation of MEMs Based Biosensor for Detection of Genetic Disorders using COMSOL	Neeru S. Singh
14.	Salimnavaskhan K	Design of Architecture framework for Real-time Management Information System for Oil&Gas process industry	M. Madijagan
15.	Salma Khaja	Isolation, Culture and expansion of Homogeneous & Undifferentiated Mouse MSCS by Establishing simple Culture Conditions	DJ Shariff
16.	Sasikumar K	Ultra-low Latency Feed for Financial Markets through Cloud Environment	M. Madijagan
17.	Sornakumar.L	Dynamic Noise Margin Using CMOS Gates and Advanced Technology	Anand Kumar, R.
18.	Tejas Vithani	Modeling the Mobile application Development Life Cycle	Anand Kumar, R.
19.	Thaha Thansi	Adaptation of Camelid cell lines for bioreactor applications	DJ Shariff & Abi George (Co-supervisor)
20.	Vamsi Krishna Peddada	Feasibility Study of implementing a Windmill for Power Generation in BPDC	Miller Jothi
21.	Vidhya Shree R	Application of Cloud in Telecom Sector Using Machine to Machine and Mobile Device Management	Sulala D. Shetty

#### **First semester 2013-2014 (September 2013 to January 2014)**

S.No.	Name	Topic	Supervisor
<b>Hyderabad Campus</b>			
1.	HimanshuKathuria	Formulation characterisation and evaluationof lipid based carrier of class II drug	Dr.PunnaRao
2.	MamidiMaheswariChengamanidevi	Formulation and evaluation of ranitidine and omeprazole bilayer tablets	Dr.PunnaRao
3.	S.Rahul	Formulation and evaluation of immediate release film coated ribavirin tablets	Dr.SwatiBiswas
4.	Suresh VenkatRaoGarad	Panchgavya formulations and effectiveness of panchgavya formulations on multiple diseases in humans	Dr.VamsikrishnaVenuganti
5.	Dineshwar Kumar	Study of formulation variables by dry granulation method on an antiplatelet drug	Dr.SrikantCharde
6.	NalamothuNeelaveni	Process validation of metoprolol succinate ER tablets USP 25mg, 50mg,100mg and 200mg	Dr.SrikantCharde
7.	Rajesh Yelugoila	Developmental studies and ANDA filling of USFDA for an anti allergic ophthalmic solution product	Dr.swatibiswas
8.	AshwiniAmolAwati	Development of validated analytical methods for estimation of Atrovastatin calcium and Amlodipine besylatetab.form by UV and HPLC	Dr.swatibiswas

S.No.	Name	Topic	Supervisor
9.	SharadAmbadas Jay bhaye	Evaluation of Lomotrigine formulation in different strength different API	Dr.PunnaRao
10.	DivyaDabbiru	Delivery of small molecules by layer by layer technique	Dr.Vamsikrishna Venuganti
11.	Mogga U S V Saraswathi	Delivery of small molecules by layer by layer technique	Dr. Vamsikrishna Venuganti
12.	SandeepBhagwat	Cloud security	Dr.Geetha Kumari
13.	VenkateshAppala	Agile project management tool which involves all cutting edge technologies like HTML5, CSS3, JQuery, knockout etc.	Dr.Digambarpawar
14.	Pratik Talishettykumar	Bug prediction model	Dr.N L Bhanu Murthy
15.	Sulabhkumar	Music data classification and providing suggestions using machine learning	Dr.Arunamalapathi
16.	OM Praksah	Feature reduction using linear dimensionality reduction algorithm	Dr.Prafulla Kalapatapu
17.	DendukuriPavan	Developing off line web applications using HTML5	Dr.Tathagata Ray
18.	Muruganandam M	IP projection for FPGA designs using constraint based water marking	Prof. M.B.Srinivas
19.	Suresh E	Hardware-Software Co-DESIGN based profiling and performance improvement of CAT-SCAN based back propagation algorithm	Prof .M.B.Srinivas
20.	Dipankar Nath	Signal Processing for biomedical applications	Dr. Prabhakar Rao
21.	Y Mallesham	Desing and Implementation of Intelligent Security System for Smart Home – Remote /Alarm	Prof. M.B. Srinivas
22.	PradyumnaOjha	Implementation of Research Paper-Emotional Expression Classification using Time- Series Kernels	Prof. S K Sahoo
23.	R J vinodthkumar	Automatic measurement and reporting system of water quality based on GSM	Dr.Aivelu Manga Parimi
24.	RatnaManedhar Punjala	Wireless critical process control in oil and gas refinery plants	Dr.Aivelu Manga Parimi
25.	Suresh kumarVure	Remote energy monitoring, profiling using GSM network	Dr.Aivelu Manga Parimi

**Both during Summer Term 2012-13 (June 2013 To August 2013) and First Semester 2013-2014 (September 2013 to January 2014)**

S.No.	Name	Topic	Supervisor
<b>Dubai Campus</b>			
1.	Breettus, V.	Mitigation of risk in the operation of Sewer disposal pump	Miller Jothi
2.	Chandu Rajan	A study on the improvement in organizational performance using an E-business application	Sujala D. Shetty & R. Uday Kumar
3.	Elayat Shyam Chand	Design, Analysis and Topology optimization of a portable jib Crane	M.V.N. Sankaram

<b>S.No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
4.	Fatiha Fatima	Issues & challenges faced by women entrepreneurs at SMEs in Sharjah	A. Srinivasa Rao
5.	Hardeep Kumar	Design and simulation of MEMS based integrated gas sensing system	K.K. Singh
6.	Irshad Ahmed S	Analysis of alternate medicine to determine the bioactive compounds	Trupti G. Swaroop
7.	Joseph George	Integrated storage system for Medical records	Jagdish Nayak
8.	Lijo Lingson	Leadership issues and challenges: A study from medium and large organizations from UAE	A. Srinivasa Rao
9.	Nanda Kumar. P.	HVAC & Design and Analysis using CFD Tool	A.M. Surendra Kumar
10.	Nilay Kumar Kiran Sangani	Analysis of an IIS hosted Private cloud web application: Hacker's perspective	Nand Kumar
11.	Rathnakar Jois	Architecture for competency assessment using data mining	Jagdish Nayak
12.	S. Rajeswari	Evaluating the Barley Accessions for Salinity Tolerance and Study the candidate genes involved in salt Tolerance	Neeru Sood & Khaled Masmoudi (Co-supervisor from ICBA, UAE)
13.	Varghese Rony K.S.	A study on Oil field waste management	B. Muralidharan



### LIST OF EQUIPMENTS PROCURED DURING THE YEAR 2013

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
<b>Biological Sciences</b>	
1. Stereo Zoom Trinocular Microscope	Animal Cell Technology
2. CO2 Incubator Thermo	Animal Cell Technology
3. Thermo Shaker Inc. MTC – 100	BIO G642 Experimental Techniques
4. Remi Refrigerator Centrifuge	Bio Central Lab
5. Electrophoresis Unit (2)	Bio Central Lab
6. Rockymax	Bio Central Lab
7. BOD Incubator Shaker	BIO F418 Genetic Engg.
8. Laboratory Fermenter Model: Bio-Spin-05I	BIO F418 Genetic Engg.
9. Shaking Incubator	BIO F418 Genetic Engg.
10. Dewinter Trinocular Microscope	Cancer Biology
11. Diaphragm Vacuum Pump 9 mbar	Cancer Biology
12. Cold Room Racks	Micro Biology Lab
13. Mini Protean Tetra Cell Unit with Acc	IMA Lab
14. Freezer -20 Degree	Thesis/Dissertation/Ph.D/Research
15. Plant Growth Chamber	
16. Mini – Protean Tetra Cell	
17. Power Pac HC Power Supply	
18. Mini-S USB Cell GT Cell with Power Pac	
19. Trans Blot SD Semi Dry Electrophoretic Transfer Cell	
20. Rotary Evaporator	
21. Diaphragm Vacuum Pump	
22. Re-Circulation Chiller	
23. UV/Vis Microplate & Cuvette Spectrometer	
24. Chemvac – TM Vacuum Pump, Tarson- 300	
25. Visible Spectrophotometer SL – 171 (2)	
26. Micropipette Puller	
27. Membrane Feeding System	
28. Mini-PROTEAN Tetra Cell, 10-well	
29. UP-250 Ultrasonic Homogenizer	
30. WEIBER Incubator Shaker	
31. Real Time PCR Detection System Bio-Rad	
32. T100- TM Thermal Cycler	
33. Nanoject II (2)	
34. Micromanipulator (2)	
35. Magnetic Support Base (2)	
36. Thermo Mixture Dry Bath	

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
37. Rotary Evaporator 1L/2L 38. Re-circulation Chiller – 30 degree Celsius 39. Inverted Trinocular Microscope 40. 4- Gel Vertica Electrophoresis system 41. Protean II xi Basic Unit with stand & Acc 42. Refrigerated Chromatography Chamber 43. Hemotek Membrane Feeding System 44. Refrigerated Ultracentrifuge 45. Table Top Refrigerator Centrifuge	
<b>Chemical Engineering</b>	
1. Volumatic Metal Analzser 2. Dynamic Foam Analyzer 3. Pressure Control Trainer 4. Flow Control Trainer 5. Control Valve Characteristics 6. Multi process Trainer 7. 1 <sup>st</sup> order & 2 <sup>nd</sup> Order system 8. Universal Control Trainer 9. York Scheibel's Extraction Unit 10. Solid-Liquid Extraction 11. OptiPlex 9020 Mini Tower (3) 12. Dell Precision T5610 CTO Base 13. Synergy Pure to Ultrapure Water Purification System 14. Indfurr Vertical Type Catalytic Reactor 15. Fixed Bed Reactor System 16. Simple Batch Distillation Setup 17. Absorption In Wetted Wall Column With Accessories 18. Vapour-Liquid Equilibrium Set-Up, Optional : Refractometer 19. Mass Transfer With & Without Chemical Reaction 20. Adsorption In Packed Bed 21. Parallel Flow/Counter Flow Heat Exchanger 22. Shell & Tube Heat Exchanger 23. Finned Tube Heat Exchanger 24. Drop wise & film wise Condensation Apparatus 25. Open pan Evaporator 26. Double effect Evaporator with Accessories 27. Plate Type Heat Exchanger 28. Sieve plate distillation column with accessories 29. Pressure Drop Through Packed Bed 30. Fluidized Bed Characteristics 31. Drag Co-Efficient Apparatus	Environmental Engg. Lab Environmental Engg. Lab Process Control Lab Mass Transfer Lab Heat Transfer Lab Fluid Mechanics Lab Analytical Lab Mechanical Operation Lab Environmental Lab Thesis/Dissertation/Ph.D/Research

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
32. Pressure Drop In Two Phase Flow With Accessories 33. Frontier MIR +SP10 STD 10000:1 34. Microprocessor Digital Viscometer 35. Table 36. Red Wood Viscometer 37. Shimadzu Atomic Absorption Spectrophotometer 38. Continuous Reactive Distillation Column,Glass 39. AAS Accessories 40. Trommel (Variable Speed) 41. Roll Crusher 42. Portable Flue Gas Analyzer 43. Continuous Analyzer for Carbon Dioxide Measurement 44. Rota vapor System 45. Frontier MIR 46. Shaking Water Bath 47. Remi Compact Bench Top Cooling Micro Centrifuge 48. Ultrasonic Cleanser 49. Optika Microscope 50. Spectralab Karl Fischer Attachment for Auto Titrator AT38C 51. Spectralab Automatic Potentiometric Titrator AT38C 52. Cascade C.S.T.R. 53. Indfurr Gas Solid Reactor Unit 54. Biomass Gasifier With Producer Gas Cleaning Unit	
<b>Chemistry</b>  1. IKA Stirrer (3) 2. Spectronic 200 Visible Spectrophotometer 3. Vacuum Pump (2) 4. Rotary Evaporator Model HEI VAP ML/G3 5. Rotovac Valve Tec Vacuum Pump 6. Denver-SI234DE Analytical Balance 7. Thermo Haake EK 90 Immersion Cooler 8. Mettler Electronic Balance 9. JULABO Compact Recirculating Cooler 10. High Pressure Seamless Nitrogen Gas Cylinder 11. Online UPS, Double 6 KVA, 2 KVA (3) 12. Mild Steel/Wooden Fume Hoods (3) 13. Elix 5+ MilliQ Millipore Water Purification system 14. Chromatography Software IRIS 32 Plus-1 15. Work Bench with Rack 16. Almirah Cupbord 17. IKA Stirrers	Chemical Experimentation I Chemical Experimentation II Chemistry Lab IMA Lab Thesis/Dissertation/Ph.D/Research

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
18. VacuumPump 19. Heating Mantle with spare mantle 20. Weighing Machine 21. APC UPS 2.2kva 22. Mestre Nova NMR 23. Sartorius	
<b>Civil Engineering</b>	
1. Variable Gauge Length Extensometer & LVDT 2. Torsion Testing Machine 3. HDR – PJ660 Projector 4. 8 – Channel Electronic Data Acquisition System 5. Portable Acoustic Emission System 6. Self Consolidated Concrete Equipments 7. Concrete Permeability Apparatus with Compressor 8. Cube Cutter 9. Accelerated Carbonation Chamber 10. AC-02-0225 Servo Hydraulic Actuator Assembly 11. Speed Vision SV1 12. Automatic Compression Testing Machine & Acc. 13. Slump Test Apparatus & Acc. 14. Basic Hydraulic bench 15. Flow over Weirs 16. Metacentric Height 17. Multi Gas Emission Analyser 18. Weber sound level meter 19. Trimble M3 (5) Total station 20. Skid Resistance Tester 21. Evolution 201 Spectrophotometer 22. Arc GIS University Lab Kit 23. Trimble Spectra Precision Digital Theodolite 24. UTM 25. Bend Test Attachment 180 degree 26. Flexural Test Attachment 27. HDR P1600 Sony Handycam 28. UT-03-0100 UNO Test System 29. Weiber Vertical Autoclave Deluxe 30. Light Weight Deflectometer	Structural Engg. Lab Transportation Engg. Lab Concrete Technology Lab Hydraulics Engineering Lab Surveying Lab Public Health Engineering Lab GIS Lab Thesis/Dissertation/Ph.D/Research

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
<b>Computers and Peripherals</b>	
1. CISCO VC System with Dual Display	SDET
2. Canon Laser Printer MF 8380	Civil Structural Engg. Lab
3. IBM x 3300 M4 Two Socket Tower Server	Civil
4. Dell <sup>TM</sup> Desktops E series E1913S, 8nos	Civil
5. OptiPlex 9020 Mini Tower, 8Nos	Civil
6. IBM Server	Civil
7. HP Desktop Model: Elite 8300	Civil
8. Catalyst WS-C2960-24TC-L Switch, CISCO (3)	Civil
9. 6 KVA EATON UPS, with 30 Mins Battery Backup	Civil
10. Hard Disk 2.5 Inch, IBM 900 GB, (SAB)	EEE O Lab
11. Apple – imac 27-inch	EEE Creative Media Lab
12. HP Laser Jet Printer Model P3015DN	CSIS
13. Lipi Line Printer Model 6605	WILPD
14. Apple iPad with Retina display 32 GB	CSIS
15. Dell Optiplex <sup>TM</sup> 7010 DT (11)	IPC
16. IBM Servers (5)	Physics
17. Dell Laptop(W540752IN8-New! Dell Inspiron 15Z	Maths
18. Dell Desktops Optiplex <sup>TM</sup> 3010 DT (17)	PS Divison
19. Mac Book Pro 13 – inch (2)	Maths
20. OptiPlex <sup>TM</sup> 7010 DT Base(175)	IPC
21. Dell Latitude E5530 (25)	IPC
22. Server x3650m4	CAHU
23. ITB Hard Disk nl sas 7.2k (2)	CAHU
24. VAIODuo11(GunMetallic)Model:SVD11216PGB(9	WILPD
25. IBM Servers (16)	CSIS-ADAPT Lab
26. KVM Switch(16 Port) Model-CS1316 (2)	CSIS-ADAPT Lab
27. 24RJ-45 Autosensing Ethernet SFP Ports(2)	IPC
28. NI USB-6221 M Series DAQ Device	CSIS
29. Dell <sup>TM</sup> Precision T1650 Chassis (5)	CSIS
30. Dell TM S2440L 24" Monitor with LED(7)	CSIS
31. QV993AV-HP Compaq Elite8300CMT PC (17)	SDET
32. HiPath 3000 Communication System	Campus Networking IPC

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
33. 27U Rack Frame/600x1000/Steel 34. Netapp FA2220 Dual controller storage 35. Dell Precision T3600 Chassis,635W 36. Apple – Macbook Air 13-inch 1.8 Ghz Intel Core i5 37. IBM Rack Server 38. IBM DS3524 Storage Battery 39. 42U Rack Frame 600/1000/Steel 40. NAS System 20TB Capacity 41. Logitech Wireless Headset H800 42. EX 2200,24-port 10/100/10000BaseT 43. HP Desktop (6) 44. Wireless N Unified Service Routers 45. Catalyst WS-C2960-24TC-L switch, CISCO (3)	IPC WILPD WILPD WILPD SDET WILPD CSIS CSIS- ADAPT Lab CSIS IPC Maths CSIS CSIS
<b>Computer Software</b>	
1. Discovery Studio 2. Sim Software 3. VASP5.2 Software 4. Xplore 1.1 PPMS 5. Qrius 1.1 Software 6. 64 Tag SCADA Software 7. Ansys Academic Research CFD 14.0 8. Origin Lab Professional V9.0 9. SW02 for Electronic Extensometer of UNITEK-94100 10. PC Software For LS Series LS – H1W 11. Automation Studio Software 12. Development of Virtual Testing Application for Solid works 13. Issue Management System 14. Database maintenance and support System 15. NI Developer Suite, English 16. Moodle-Google Integration 17. NI EL VIS II+ Circuit Design Bundle 18. Qual Net 6.1 Research License Perpetual 19. Qualnet 6.1 research License Perpetual 20. IBM COGNOS Express Administrator Authorized 21. ONLINE Imaging Kit for windows 22. NetSim Academic Version 6.0 23. Solid Works Education Edition 2012-2013	BIO Physics Adv Physics Lab Physics Physics Physics Chemical Chemical Chemistry Mechanical Engg. Fromothers Mech. Engg. Mech. Engg. WILPD WILPD CSIS WILPD CSIS IPC IPC CSIS CSIS Mech. Engg. Thesis/Dissertation/Ph.D/Research

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
<b>Electrical, Electronics &amp; Instrumentation Engineering</b>	
<ol style="list-style-type: none"> <li>1. LCD Projector Panasonic PT LX26 H</li> <li>2. Amplifier QSC CX254 with Accessories</li> <li>3. Online UPS. Double 6 KVA</li> <li>4. Voltage Probes – Differential Probe 25 MHz</li> <li>5. Digital Tachometer</li> <li>6. RFID Reader/ Writer</li> <li>7. DC Speed control set-up</li> <li>8. 25Mhz Arbitrary/ Functional generator</li> <li>9. Zed Board Zynq™ (3)</li> <li>10. Working Stools (80)</li> <li>11. Working Tables (92)</li> <li>12. Rheostat 300 ohm/1.7 A</li> <li>13. 2 MHz Function Generator with Built-in 6 digit counter</li> <li>14. NI ELVIS II Hardware</li> <li>15. Vernier Bioinstrumentation Sensor Kit</li> <li>16. Vernier Green Engineering Sensor Kit</li> <li>17. Linear System Simulation</li> <li>18. Tektronix Digital Storage Oscilloscope 40Mhz</li> <li>19. Digital Storage Oscilloscope</li> <li>20. Genesys™ Virtex (3)</li> <li>21. Hgh voltage PFC and motor Control Developer's Kit</li> <li>22. NI-ELVIS II Hardware</li> <li>23. Eezy Revolving Chairs (10)</li> </ol>	<p>TBI AV Lab Communication Lab Power Electronics Lab Electrical Machines Lab Wireless Comm Lab Instrumentation Technology Lab O Lab ECAC Lab Analog Lab Thesis/Dissertation/Ph.D/Research</p>
<b>Mechanical Engineering</b>	
<ol style="list-style-type: none"> <li>1. Basic Pneumatic Training equipment set</li> <li>2. IRB1410-5Kg-1440mm with IRC5 Compact Controller</li> <li>3. Vision system</li> <li>4. Hot Tensile Attachment for UNITEK-94100</li> <li>5. LaboPol-5 Grinding / Polishing machine (740)</li> <li>6. CCD Micrometer (Sensor Head &amp; Controller)</li> <li>7. Cable for LS Series, PC Software</li> <li>8. OMP400 OPT/OPT SYS KIT OMI – 215M</li> <li>9. TS27R Probe/12.7 DISC No. M18</li> <li>10. NI USB 4432-24 Bit, Sigma- Delta ADCs</li> <li>11. Development of Virtual Testing Application</li> <li>12. Add-on Electro Pneumatic Training equipment set</li> <li>13. Add-on Plc Training equipment set</li> <li>14. Add-on Easyport Training equipment set</li> <li>15. Pneumatic workstation with one drawer unit</li> </ol>	<p>MF C319 Mechatronics &amp; Automation Robotics &amp; Intelligent Systems Centre for Robotics Material Science Lab Material Science Thesis/Dissertation/Ph.D/Research</p>

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
16. Noise free compressor , suitable for classroom 17. Pneumatic Cut away models 18. Fluidsim 4.5 Pneumatic simulation software, five network license 19. Compressors and accessories 20. UI-1221LE-C-HQ (Board level version 2) 21. Precision scale TC-K Series 22. Sushma Rotary Torque Angle Sensor With Display Unit 23. Hydraulic Trainer with storage	
<b>Pharmacy</b>	
1. LG Refrigerator (3) 2. Ismatec Pump Motor 3. Magnetic Stirrer with Hot Plate (10) 4. Online UPS, Double 6 KVA 5. Active Avoidance Test 6. Power Lab Four Channel DAS 7. NIBP System for Rat 8. Roche Light Cyclor 96 Real Time PCR System 9. Diffusion Cell Apparatus 10. Air compressors 11. High Speed Homogenizer (4) 12. pH Meter, Hanna (4) 13. Compressor Make Danfoss (2) 14. UPL CM SMS System 15. 10 kva UPS, NPN, Argon Cylinder with Regulator & Laser Printer 16. Quartz Crystal Microbalance 17. Fume Hood 'Mac' (3) 18. Hot Air Oven 'Mac' 19. Shimadzu Spectrofluorophotometer 20. Bruker Optik Ft-Ir Spectrometer 21. Volt Ohm Meter 22. Digital Randall Selitto Pressure Applicator 23. Magnetic stirrer with hot plate 24. Optika Fluorescence Microscope 25. Shimadzu Gas Chromatography 26. Refrigerated Centrifuge 5430R with Accessories 27. Optica Microscope 28. Rapid Mixer Granulator 29. Xenon Lamp 150W 30. Video Tracking Version for Single Animal	Ind Research lab Animal House Medicinal Chemistry Lab IMA Lab Thesis/Dissertation/Ph.D/Research



Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
<b>Physics</b>	
<ol style="list-style-type: none"> <li>1. Zeeman's Effect apparatus</li> <li>2. He-Ne Laser with power supply (2)</li> <li>3. "Keithley" Digital Sourcemeter</li> <li>4. High Temperature Furnace</li> <li>5. Tap190DLC(10)-Budget Sensors</li> <li>6. Scanning Tunning Microscope</li> <li>7. Lock-in-Amplifire design to run with nanoREV</li> <li>8. Tungsten Helical &amp; Acc.</li> <li>9. Microprocessor Based Refrigerated and Heating Calculator</li> <li>10. True RMS 50000 count handheld</li> <li>11. Audio Amplifier</li> <li>12. DSP Dual Phase Lock</li> <li>13. Motorized Translation Stage with Accessories</li> <li>14. Tap 150 DLC(10)- Budget Sensors Silicon Scanning Probe</li> <li>15. 1 KVA Transformer</li> </ol>	<p>PHY F244 Modern Physics</p> <p>PHY F344 Advance Physics Lab</p> <p>PHY F344 Advance Physics Lab</p> <p>PHY F243 Mathematical Methods of Physics</p> <p>Thesis/Dissertation/Ph.D/Research</p>
<b>Others</b>	
<ol style="list-style-type: none"> <li>1. CCD Micrometer(Sensor Head) LS – 7070M</li> <li>2. CCD Micrometer(Controller) LS – 7601</li> <li>3. CCD Micrometer(Base Unit) LS – S11</li> <li>4. T. T. Table (4)</li> <li>5. Neo Neon Scene Setter</li> <li>6. Camera Lens for Nikon D7000</li> <li>7. VEC Coating Unit Model No.-12 CU4</li> <li>8. Hitachi CPX2530 LCD Projector (4)</li> <li>9. Voltas1.0 TR Split Air Conditioners Silver 3 Star1</li> <li>10. Electrolab Granule Friability Tester EGF1</li> <li>11. Electrolab Hardness Tester EBT-2P</li> <li>12. LCD Projector Panasonic PT LX26 H(5)</li> <li>13. Annotator (Make WACOM Model DTU</li> <li>14. iR 2530, Basic Digital Copier (3)</li> <li>15. Web Ex EE with IM- Enterprise Subscription</li> <li>16. 15 KVA EATON Make UPS</li> <li>17. Nikon Flash (speed light SB-910)</li> <li>18. Lens(AF-S DX Nikkor 10-24mm f/3.5-4.5g ED)</li> <li>19. Wooden Tables (11)</li> <li>20. Sony Vaio Laptop Model:SVS13A15GN</li> </ol>	<p>ARCD</p> <p>ARCD</p> <p>ARCD</p> <p>SWD</p> <p>IU</p> <p>PMRU</p> <p>PSD</p> <p>IU</p> <p>EMU</p> <p>Pharmacy</p> <p>FDIII Pharmacy</p> <p>IU</p> <p>WILPD</p> <p>REPRO</p> <p>SDET</p> <p>IPC</p> <p>REPRO</p> <p>REPRO</p> <p>CSIS</p> <p>FAD</p>

Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
21. Apple iPhone 5, Black, with 64 GB Storage	SDET
22. EOS 60D Kit (EFS18-135 IS) canon camera	HSS
23. 6 kva Eaton UPS	AFU
24. Panasonic PT-EW630E, Projectors (2)	IU
25. 15kva Eaton Make UPS	IPC
26. 15KVA Eaton Make UPS(2)	CSIS
27. Programmer Edition	CSIS
28. GZL-CL-41C6N-C, CMOSIS CMV 4000 1" global shutter	CSIS
29. EATON Power ware make True Online UPS Double 3 KVA	IPC
30. Document Camera, Elmo Model: L-12	FAD
31. FITKING Com.SuperHeavy7HP Treadmill (2)	SWD
32. COSCO JK 3955 Com. Spin Bike (2)	SWD
33. Camera EOS 5D Mark iii kit (EF 24-105 F4L IS USM)	WILPD
34. Camera Lens Canon EF24-70mm f/2.8L	WILPD
35. Computer Table	MATHS
36. Table 'L' type size: 2' x 5' x 5' x 2(1/2)'	MATHS
37. Chair Eezy	MATHS
38. Cat6 I/O Jacks, Make – Molex (500)	IPC
39. Cat6 UTP PVC Cable (305mts. Roll) (40)	IPC
40. Cat6 OutdoorPremisesCable(305mts.Roll) (5)	IPC
41. Harpenden Skinfold Caliper	Medical Center
42. ECG Sensors	CSIS
43. Aqua Soaker Handy-36" with pulling handle	SWD
44. Voice Mail System for 96 users	IPC
45. Voltas 1.0 TR Split Air Conditioners Silver 3 Star-1	EMU
46. Additional Storage Place 200GB-Annual	SDET
47. Zoneflex Dual Band	IPC
48. 8 Ch DVR Hikvision with HDMIDI	SWD
49. RW2000 Active RFID Kit	CSIS
50. Cisco 2911 Router	CSIS
51. Kitchen Equipments	SWD

**CUMULATED LIST OF BOOKS PUBLISHED UNDER THE AUTHORSHIP OF BITS  
FACULTY**

**A. Text Books**

S.No.	Author	Title	Publisher	Year
<i>Bio Sciences</i>				
1.	Rastogi, S.C.	An outline of Developmental Physiology	Rajasthan Hindi Granth Academy, Jaipur	1973
2.	Rastogi, S.C.	Essentials of Animal Physiology	Wiley Eastern, New Delhi	1977
3.	Rastogi, S.C.	Experimental Physiology	Wiley Eastern, New Delhi	1982
4.	Mitra, Sandhya	Elements of Molecular Biology	MacMillan	1982
5.	Rastogi, S.C.	Cell Biology	Tata McGraw Hill, New Delhi	1988
6.	Rastogi, S.C.	Biochemistry	Tata McGraw Hill, New Delhi	1993
7.	Rastogi, S.C., Sharma, V.N., Tandon, A.	Concepts in Molecular Biology	Wiley Eastern, New Delhi	1993
8.	Mitra, Sandhya	Essentials of Genetics	Tata McGraw Hill, New Delhi	1994
9.	Mitra, Sandhya	Business of Living	Wiley Eastern, New Delhi	1994
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11.	Ashish Runthala	Hunting Drugs for Potent Antigens in the Silicon Valley	IGI GLOBAL	2010
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33.	Kumar, Kamlesh	Basic Geotechnical Earthquake Engineering	New Age International Publishers, Limited, New Delhi.	2006
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39.	Mathur, A.P.	Introduction to Microprocessors (Third Ed.)	Tata McGraw Hill, New Delhi	1989
40.	Sharan, S.N.	Fundamentals of Expert System	CBS, New Delhi	1993
41.	Banerjee, Rahul	Architecture and Conceptual Design of the Unix System	Khanna Publishers	1993
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43.	Ghosh, S.	Programming in C	Prentice Hall of India	2004
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45.	Jain, R.P.	Modern Digital Electronics	Tata McGraw Hill, New Delhi	1984
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49.	Nagrath, I.J., Kothari, D.P.	Modern Power System Analysis (Second Ed.)	Tata McGraw Hill, New Delhi	1989
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60.	Ghosh, S.	Fundamentals of Electrical and Electronics Engineering	Prentice Hall of India	2003
61.	Khare, R.P.	Fiber Optics and Optoelectronics	Oxford University Press	2004
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63.	Ghosh, S.	Electrical Machines	Pearson Education	2005
64.	Maheshwari, L.K., Anand, M.M.S.	Analog Electronics	Prentice Hall of India, New Delhi	2005
65.	Maheshwari, L.K., Anand, M.M.S.	Laboratory experiments and PSPICE simulations analog electronic	Prentice-Hall of India	2006
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67.	Surekha Bhanot	Process Control-principles and applications	Oxford University Press	2008
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71.	Sharma, R.C. Krishna Mohan	Business Correspondence and Report Writing (2nd Ed.)	Tata McGraw Hill, New Delhi	1994
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73.	Raman, Meenakshi, Sharma, Sangeeta	Technical Communication: Principles and Practice	OUP, New Delhi	2004
74.	Raman, Meenakshi [Ed.]	English Language Teaching	Atlantic Publishers and Distributors Ltd, New Delhi	2004
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80.	Raman, Meenakshi Sangeeta Sharma	Technical Communication: English Skills for Engineers	OUP, New Delhi.	2009
81.	Pushp Lata and Sanjay Kumar	Communicate to Conquer: A Handbook of Group Discussion and Job Interviews with DVD	New Delhi: Prentice Hall of India (PHI)	2010
82.	Pushp Lata and Sanjay Kumar	Communication Skills	Oxford Higher Education	2011
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90.	Ghosh, S.	Network Theory: Analysis and Synthesis	Prentice Hall of India	2005
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130.	Prakash, Ravi	Nondestructive Testing Techniques	New Age Int. Publishers, New Delhi	2007
131.	Parashar, B.S.N.	Cellular manufacturing systems	PHI, New Delhi	2009
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145.	Mehta, H.C.	Science and Society in the University	Jain Bros., New Delhi	1976
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163.	Gaur, V.P.	Studies on Nehru	Sterling Publishers, New Delhi	1987
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180.	Dhyani, Umesh	Global corporate executives 63 mantras	Allied Publishers	2005
181.	Srivastava, R.C. Nagappa, A.N.	Surface Activity in Drug Design	Elsevier	2005
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191.	Gupta, S.P., Gupta, R.R. (Ed.)	QSAR and Molecular Modeling Studies in Heterocyclic Drugs I	Springer Verlag, Berlin	2006
192.	Parashar, B.S.N.	Elements of Manufacturing Processes	Prentice Hall of India	2006
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194.	Krishna Mohan, Meenakshi Raman	Advanced Communicative English	TMH, New Delhi	2009
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205.	Modad, Pintu & Debnath, KK	Science of Sports Training: A Comprehensive Approach	Sports Publications, New Delhi	2011
206.	Swami Anubhavananda & Arya Kumar	Ethics in Management - Insights from Ancient Indian Wisdom 2nd Edition	ANE Books Pvt Ltd	2014
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	Jagadeesh Anmala	Mixing and Bimolecular Reactions in Heterogeneous Porous Media Flows: Transport, Mixing and Reactions	LAP Lambert Academic Publishing, Germany	2010
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17. Kumar, A. Entrepreneurship Development for Employment of Youths, Between the Lines, Monthly Newsletter of Management Group, April 2005
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**LECTURE NOTES PREPARED BY EDUCATIONAL DEVELOPMENT DIVISION**

<b>S.No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Title of Notes</b>	<b>Author(s)/Editor(s)</b>
1.	AAOC C212	Social Engineering II	Principles of Economics	V.P. Rao
2.	AAOC C312	Operations Research	Operations Research	S.Venkateswaran and others
3.	AAOC C322	Systems	Mode of Engg Systems by Bond Graph	R. Gupta
4.	AAOC C341	Numerical Analysis	An Introduction to Numerical Analysis	Devi Prasad
5.	AAOC C351	Instru Methods of Anal	Laboratory Manual for Instrumental Methods of Analysis	R. Mahesh and others
6.	BIO C241 PHA C241	Microbiology	Laboratory Manual for Microbiology	Saby John, S. Ramachandran
7.	BIO C331	Biophysics	Aspects of Biophysics	S.P. Gupta
8.	BIO C331 & CHEM C341	Biophysical Chemistry	Biophysical Chemistry	Nelashish Nandi
9.	BIO C341/ PHA C452	Microbiology	Laboratory Manual for Microbiology	Y. Shivaji, S.K. Verma, U. Roy
10.	BIO C414	Genetic Engineering	Laboratory Manual for Genetic Engineering	Suman Kapur, A.K. Das
11.	BIO G631	Membrane Liposome Technique	Liposome Technology	V.N. Sharma
12.	BIO G 641	Plant Cell and Tissue Culture Technology	Laboratory Manual for Plant Cell and Tissue Culture Technology	Jitendra Panwar, Rajesh Mehrotra, K. Krithika
13.	BIO G 642	Experimental Techniques	Laboratory Manual for Experimental Techniques	Vishal Saxena and Others
14.	BITS C319	Negotiation Skills and Techniques	Negotiation Skills and Techniques	Bhaskar Bose, S. Anitha
15.	BITS C488 MBA C488	Services Management System	Introduction to Outsourcing BPO and KPO	Usha Manjunath
16.	BITS G512	Object Oriented Programming	An Introduction to Object Oriented Programming	K.R.V. Subramanian
17.	BITS G619	Professional Practice	Professional Practice (Supp. Notes)	Krishna Mohan and others
18.	BITS G624	Comp. Base Simulation & Modelling	Comp. base Simulation & Modelling	K.R.V. Subramanian
19.	BITS G659	Technical Communication	Technical Communication	Meenakshi Raman and others
20.	CDP C323	Function & Work Stock Exchange	Stock Exchanges in India	H.R. Machiraju
21.	CE G531	Environmental Conservation	Environmental Conservation	S.K. Singh and others



<b>S.No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Title of Notes</b>	<b>Author(s)/Editor(s)</b>
22.	CHE C351/ CHE C341/ CHE 441	Heat Transfer Operations/ Selected Chemical Engineering Operations/ Process Control	Chemical Engineering Lab. Manual	R.K. Gupta
23.	CHE C351/ CHE C441/ CHE C431	Heat Transfer Operations/ Process Control/ Selected Chemical Engineering Operations	Chemical Engineering Laboratory Manual	B.V. Babu and Others
24.	CHE C441	Process Control	Process Control	R.P. Vaid
25.	CHE C473	Advanced Process Control	Advanced Process Control	H. K. Mohanta & Others
26.	CHE G541	Process Plant Simulation	Process Plant Simulation	B. V. Babu & Others
27.	CHE G513	Environmental Management System	Environmental Management System	B.V. Babu, S.D. Manjare
28.	CHE G541	Process Plant Simulation	Process Plant Simulation	B.V. Babu
29.	CHE G551	Fluidisation Engineering	Advanced Separation Techniques	R.K. Gupta and others
30.	CS C321	Computer & Programming	Assembly Language Programming for MC68030 Based Computers	K.R.V. Subramanian
31.	CS C331	Computer Organisation	Digital Systems Design	P.S.V.S.K. Raju
32.	CS/EEE/ INSTR C391	Digital Electronics & Computer Organization	Lab Manual for Digital Electronics & Computer Organization	G. Raghurama, S. Gurunarayanan
33.	DE G611	Dynamics and Vibration	Advanced Dynamics for Engg.	N.N. Sharma
34.	EA C411	Robotics	Robotics & Control	I.J. Nagarath, R.K. Mittal
35.	EA C415	Introduction to MEMS	Introduction to MEMS NNMDC	N.N. Sharma
36.	EA C421	Genetic Engineering	Genetic Engineering: A Lab. Manual	Utpal Roy and others
37.	EA C422	Fibre Optics and Optoelectronics	Fibre Optics and Optoelectronics	R.P. Khare
38.	EA C451	Internetworking Technology	Internetworking Technology	Rahul Banerjee
39.	EA C452	Mobile Telecom. Networks	Mobile Telecom. Networks	J. Garrell
40.	EA C463	Neural Networks & Appl.	Neural Networks & Application	L. Behera
41.	EA C476	Power Apparatus and Networks	Laboratory Manual for Simulation Experiments on Power Apparatus and Networks	S. Roy
42.	EA C482	Fuzzy logic & Appl.	Introduction to Fuzzy sets & Fuzzy logic	M. Ganesh

<b>S.No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Title of Notes</b>	<b>Author(s)/Editor(s)</b>
43.	ECON C312	Money Bank & Inter Trade	Monetary Economics	G.P. Avasthi
44.	ECON C321	Macroeconomics	Macroeconomics (Concept Methods & Models)	G.P. Avasthi
45.	EEE C364/ INSTR C364	Analog Electronics	Analog Electronics	L.K. Maheshwari
46.	EEE C371	EM Energy Conversion	Electric Machines-Lab. Manual	I.J. Nagrath
47.	EEE C372	Circuits and Signals	Signals and Systems (Pts I & II)	I.J. Nagrath
48.	EEE C382	Communication Systems	Laboratory Manual for Comm. Sys.	S. Balasubramanina and others
49.	EEE C383	Communication Systems	Lab Manual for Communication Systems	S. Balasubramanian and others
50.	EEE C391	Digital Electronics & Computer Orga.	Digital Electronics & Computer Orga.	G. Raghurama
51.	EEE C391	Digital Electronics & Computer Orga.	Introduction to Computer Org. (Supp. Notes)	G. Raghurama, TSB Sudarshan
52.	EEE C415	Digital Signal Processing	Laboratory Manual for Digital Signal Processing	Shikha Tripathi and Others
53.	EEE C433/ EEEG581	EM Field & Waves, RF & Microwaves	Smith Charts	Hema Singh
54.	EEE G 542	Power Electronics Converters	Laboratory Manual of Power Electronics	H.V. Manjunath Dheerendra Singh
55.	EEE G 546	Systems Simulation Laboratory	Laboratory Manual for Power Electronic Systems Simulation on PSCAD/EMTDC	S. Roy
56.	EEE G581	RF & Microwaves	Microwave Experiments	S. Balasubramanian and others
57.	EEE G581	RF and Microwave Engineering	Laboratory Manual for RF and Microwave Engineering	S. Balasubramanian, Hema Singh
58.	ENGG C212	Introduction to Systems	An Introduction to Systems	I.J. Nagrath and others
59.	ENGL C121	English Lang. Skills I	Developing English Language Skills	Krishna Mohan et. Al
60.	ENGL C342	Science Writings	Science Writings	M. Banerji
61.	ENGL C353	Effective Public Speaking	Effective Public Speaking	Pushplata, Meenakshi Raman
62.	ES C112	Thermodynamics	Thermodynamics Tables, Figures and Charts	Adopted from Book
63.	ES C222	Energy Conversion	Basic Electrical Engineering	I.J. Nagrath
64.	ES C241	Electrical Sciences-I	Basics of PSPICE (Suppl. Notes)	M.M.S. Anand
65.	ES C241	Electrical Science I	Sinusoidal Forcing Function Response and Rectifiers	M.M.S Anand
66.	ES C252	Electronics	Electronics – Analog & Digital	I.J. Nagrath

<b>S.No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Title of Notes</b>	<b>Author(s)/Editor(s)</b>
67.	ES C263	Microprocessor Programming and Interfacing	Laboratory Manual for Microprocessor Programming and Interfacing	J.P. Mishra, S. Mohan, S. Gurunaryanan
68.	ET C311	Selected Technologies	Selected Technologies	Jessil A.C.
69.	ET C312	Tech. and Energy Assessment	Energy Efficiency and DSM application for Indian Industry	M. Ramachandran
70.	FIN C311	Merchant Banking	Merchant Banking (Principles & Practice)	H.R. Machiraju
71.	FIN C322	Project Finance	Project Finance	H.R. Machiraju
72.	HSS C 313	Critical Analysis of Literature and Cinema	Introduction to Film Appreciation	Geetha B.
73.	HSS C314	Print and Audio Visual Advertising	Print and Audio-Visual Advertising	Sangeeta Sharma
74.	HUM C321	App of Indian Music	An Approach to Sangeet	R. Roy
75.	HUM C341	Comp. Indian Literature	Comp. Indian Literature	S. Mitra and others
76.	HUM C342	Graphic Art	Graphic Arts	A.P. Rastogi
77.	HUM C382	Sankara's Thoughts	Sankara's Thoughts	S.D. Mishra
78.	INSTR C312	Industrial Instrumentation & Control	Process Control – Issue and Application	Surekha Bhanot
79.	INSTR C354	Instrumentation Technology	Electronics Instruments & Instr. Tech.	M.M.S. Anand and others
80.	INSTR C355	Electronics Instruments & Instrumentation Technology	Experiments in Instrumentation (Lab. Manual)	M.M.S. Anand, Rajesh Purohit
81.	INSTR C381	Transducers and Measurement Systems	Measurement Science- Concepts and Applications Vol. I and II	Surekha Bhanot
82.	INSTR C312	Industrial Instrumentation & Control	Process Control-Issues and Application Vol I & II	Surekha Bhanot
83.	IS C472	Geographical Information System	Computing Aspects of Geographical information system	Rajiv Gupta
84.	MATH C121	Finite Mathematics	Topics in Finite Maths	J.C. Pant
85.	MATH C131	Calculus	Calculus (Supplementary notes)	R.K. Patnaik
86.	MATH C151	Linear Algebra	Supp. Notes to Linear Algebra	V. Krishnamurthy and others
87.	MATH C211	Complex Variable	Laplace Transform	V.P. Mainra, B. Singh
88.	ME C331	Transport Phenomena II	Transport Phenomena II Lab. Manual	R.K. Mittal
89.	ME C331	Transport Phenomena-II	Data Book for Heat Transfer Applications (Supplementary Notes) Part I & II	M. Srinivas R.K. Mittal
90.	ME C332	Steam & Gas Turbine	Steam & Gas Turbine	G. Singh

<b>S.No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Title of Notes</b>	<b>Author(s)/Editor(s)</b>
91.	ME C332	Prime Movers and Fluid Machines	Laboratory Manual for Prime Movers and Fluid Machines	S.S. Deshmukh M.S. Soni
92.	ME C342	Production Techniques	Lab. Manual for Production Technique	G. Harinarayana
93.	MEL G631	Physics and Modelling of Microelectronics devices	Lab. Manual for MOSFET characterization	Anu Gupta
94.	MF C314/ MFC 313	Metal forming & Machining	Metal Forming & Machining Lab Manual	P. Srinivas & A. digalwar
95.	MSE G531	Concurrent Engineering	Concurrent Engineering	K.S. Sangwan
96.	MSMS C311	History & Dev of Museums	History & Dev of Museums	P. Mandke
97.	MSMS C312	Museum Management	Museum Management	P. Mandke and others
98.	MSMS C321	Exhibits & Presentation	Exhibits & Presentation	M.K. Kashiramka
99.	MSMS C322	Profess Skills & Tech I	Profess Skills & Tech I	S. Kundu
100.	MSMS C331	Museum Edu & Ext Services	Museum Edu & Ext Services	S. Kundu
101.	MST G511	Nondestructive Testing Techniques	Nondestructive Testing Techniques	Ravi Pakash
102.	PHIL C221	Symbolic Logic	Intro to Symbolic Logic	B.K. Neema
103.	SOC C211	Dyna. Of Social Change	Dynamics of Social Change	N. Prakash and others
104.	STD C312	Science Communication	Science Communication	M. Banerji
105.	STD C322	R&D Management	Management of R&D (Supp. Notes) (Jan. 95)	T.S.K.V. Iyer
106.	TA C111	Engg. Graphics	Engg. Graphics & CAD	A.P. Rastogi and others
107.	TA C111	Engineering Graphics	Engineering Graphics with AUTOCAD	D.M. Kulkarni, A.K. Sarkar
108.	TA C112	Workshop Practice	Manual Workshop Practice	G. Harinarayana
109.	TA C112	Workshop Practice	Elements of Manufacturing Process	B.S.N. Parashar and others
110.	TA C112	Workshop Practice	Workshop Practice (Suppl. Notes)	B.S.N. Parashar and others
111.	TA C112	Workshop Practice	Practical Manual for Workshop Practice	R.K. Mittal, B.K. Rout
112.	TA C112	Workshop Practice	Practical Manual for Workshop Practice	K.S. Sangwan and others
113.	TA C152	Computer Programming I	Introduction to Comp. UNIX Algo. & Flowchart	Usha V. Subramanian and others
114.	TA C162	Computer Programming I	Computer Fundamentals	Usha V. Subramanian
115.	TA C211	Measurement Techniques I	Measurement Tech. I	Bioscience Faculty
116.	TA C211	Measurement Techniques I	Measurement Tech. I	Chemistry Faculty
117.	TA C211	Measurement Techniques I	Laboratory Manual for Chemistry Measurement Techniques I	Chemistry Group Faculty

<b>S.No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Title of Notes</b>	<b>Author(s)/Editor(s)</b>
118.	TA C211	Measurement Techniques I	Measurement Tech. I	Physics Faculty
119.	TA C211	Measurement Techniques I (Physics)	Measurement Techniques I (Physics) Observations and Results	Physics Group Faculty
120.	TA C211	Measurement Techniques I	Laboratory Manual for Physics Measurement Techniques I: Observations and Results	Physics Group Faculty
121.	TA C 211	Measurement Techniques I	Laboratory Manual for Physics Measurement Techniques I: Theory	Physics Group Faculty
122.	TA C211	Measurement Technique-I	Lab Manual for Physics MT- I Observations and Results	Suresh Ramaswamy and others
123.	TA C222	Measurement Techniques – II	A Lab. Manual for Measurement Techniques-II	K.E. Raman and others
124.	TA C222	Measurement Techniques-II	Measurement Techniques-II (Supplementary Notes)	A. Sarkar & others
125.	TA C222	Measurement Techniques-II	Measurement Techniques-II (Supplementary Notes)	A. Sarkar and others
126.	TA C231	Business Communication	Business Communication	M. Raman and others
127.	TAC 211	Measurement Technique-I	Lab Manual for Physics MT-I	Suresh Ramaswamy and others
128.	TOC C215	Language Lab Practice	Language Lab Practice Lab Manual	Devika Sangwan
129.		Office Practices	Office Practices  Lectures Notes for Work-integrated Trade Certificate Training Programme	M.M.S. Anand

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3. Faculty Affairs	Prof. Navneet Goyal
4. Instruction	Prof. Srikanta Routroy
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4. Gandhi	Prof. Hari Om Bansal
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Dr. Ishwara Bhat M.

**BUDGET OFFICER**

Shri Mohan Lal

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## BITS PILANI - KK BIRLA GOA CAMPUS

### B2.1 SENIOR OFFICERS

1. Prof. K. E. Raman (Acting Director)
2. Prof. Sanjeev Kumar Aggarwal (Director)

#### New appointments

During the year, the following new administrative appointments were made:

1. Director
2. Head of Departments.

*The names and designations of senior officers of Goa Campus are given in 'Annexure B2-1'.*

### B2.2 ADMISSIONS

The number of students admitted in each of the semester is given below.

	Integrated First Degree Programmes	Higher Degree Programmes	Doctoral Programmes (PhD)	Total
Second Semester 2012-2013	-	-	8(03)	<b>8(03)</b>
First Semester 2013-2014	604(75)	60(17)	FT - 19(10) PT - 05 (03)	<b>688(105)</b>

*The programme-wise details are given in Annexure B2-2 (Part B2).*

### B2.3 DUAL DEGREES AND TRANSFERS

#### (a) Dual Degree

During the Academic year 2012-2013, 170 students were permitted to work concurrently for two first degrees under the Dual Degree scheme. *See Annexure B2-3 (Part B2) for details*

#### (b) Transfer

During the Academic year 2012-2013, **8** students ((i) Within same tier : **7**; (ii) Integrated First Degree to Higher Degree : Nil, (iii) Higher Degree to Ph.D.: **1** was permitted to transfer.

### B2.4 ACADEMIC CALENDAR

The Academic year of the Institute is divided into two semesters and a summer term.

	Starting Date	Ending date	Number of instruction days (excluding examination days)
Second Semester 2012-2013	7 Jan 13	14 May 13	79
First Semester 2013-2014	1 Aug 13	14 Dec 13	85
Summer Term 2012-2013	21 May 13	13 July 13	46

### B2.5 COURSES OFFERED

The number of courses, offered during the year 2013 is as follows:

	Number of Courses offered
Second Semester 2012-2013	258
First Semester 2013-2014	344
Summer Term 2012-2013	3

During the year, the following new courses were introduced.

Sr.No.	Comp code	Course No	Course Title
1	1424	BIO F241	ECOLOGY & ENVIRON SCI
2	1430	BIO F242	INTRO TO BIOINFORMATICS
3	1425	BIO F243	GENETICS
4	1426	BIO F244	INSTRU METHODS OF ANAL
5	192	BIO G526	CANCER BIOLOGY
6	956	BIO G643	PLANT BIOTECHNOLOGY
7	339	BITS C211	INTRODUCTION TO IPR
8	1591	BITS F221	PRACTICE SCHOOL I
9	1791	BITS F382	READING COURSE
10	1793	BITS F398	CREATIVE MULTIMEDIA
11	1248	BITS F415	INTRODUCTION TO MEMS
12	1796	BITS F462	RENEWABLE ENERGY
13	1338	BITS F463	CRYPTOGRAPHY
14	1797	BITS F468	NEW VENTURE CREATION
15	1180	CHE F241	HEAT TRANSFER
16	1181	CHE F242	NUMERICAL METHODS FOR CHEM ENGG
17	1182	CHE F243	MATERIAL SCIENCE & ENGINEERING
18	1183	CHE F244	SEPARATION PROCESSES I
19	1653	CHE F266	STUDY PROJECT
20	1184	CHE F311	KINETICS & REACTOR DESIG
21	1185	CHE F312	CHEMICAL ENGG LAB I
22	1186	CHE F313	SEPARATION PROCESSES II
23	1187	CHE F314	PROCESS DES PRINCIPLES I
24	1668	CHE F366	LABORATORY PROJECT
25	1206	CHE F411	ENVIR POLLUTION CONTROL
26	1201	CHE F414	TRANSPORT PHENOMENA
27	1202	CHE F433	CORROSION ENGINEERING
28	1554	CHEM F241	INORGANIC CHEMISTRY II
29	1555	CHEM F242	CHEMICAL EXPERIMENTATION I
30	1556	CHEM F243	ORGANIC CHEMISTRY II
31	1557	CHEM F244	PHYSICAL CHEMISTRY III
32	1654	CHEM F266	STUDY PROJECT
33	1559	CHEM F311	ORGANIC CHEMISTRY III
34	1560	CHEM F312	PHYSICAL CHEMISTRY IV
35	1558	CHEM F313	INSTRU METHODS OF ANAL
36	1669	CHEM F366	LABORATORY PROJECT

Sr.No.	Comp code	Course No	Course Title
37	1095	CS F212	DATABASE SYSTEMS
38	1313	CS F241	MICROPROCESSORS & INTERFACING
39	1655	CS F266	STUDY PROJECT
40	1316	CS F301	PRINCIPLES OF PROGG LANG
41	1317	CS F342	COMPUTER ARCHITECTURE
42	1314	CS F351	THEORY OF COMPUTATION
43	1670	CS F366	LABORATORY PROJECT
44	1315	CS F372	OPERATING SYSTEMS
45	1689	CS F376	DESIGN PROJECT
46	1328	CS F413	INTERNETWORKING TECH
47	1322	CS F415	DATA MINING
48	1442	ECON F241	ECONOMETRIC METHODS
49	1443	ECON F242	MICROECONOMICS
50	1444	ECON F243	MACROECONOMICS
51	1445	ECON F244	ECONOMIC OF GROWTH & DEV
52	1656	ECON F266	STUDY PROJECT
53	1446	ECON F311	INTERNATIONAL ECONOMICS
54	1447	ECON F312	MONEY BANK & FIN MARKETS
55	1448	ECON F313	ISSUES IN ECONOMIC DEV
56	1773	ECON F314	INDUSTRIAL ECONOMICS
57	1566	ECON F412	SECUR ANAL & PORTFOL MGT
58	1568	ECON F471	RESOURCES & ENVIR ECON
59	1238	EEE F241	MICROPROCESSORS & INTERFACING
60	1239	EEE F242	CONTROL SYSTEMS
61	1240	EEE F243	SIGNALS & SYSTEMS
62	1241	EEE F244	MICROELECTRONIC CIRCUITS
63	1657	EEE F266	STUDY PROJECT
64	1242	EEE F311	COMMUNICATION SYSTEMS
65	1243	EEE F313	ANALOG & DISIT VLSI DES
66	1255	EEE F346	DATA COMMUNIC & NETWORKS
67	1731	EEE F366	LABORATORY PROJECT
68	1691	EEE F376	DESIGN PROJECT
69	1252	EEE F414	TELECOM SWIT SYS & NETWK
70	1250	EEE F431	MOBILE TELECOM NETWORKS
71	1247	EEE F432	MEDICAL INSTRUMENTATION
72	1249	EEE F472	SATELLITE COMMUNICAITON
73	1542	FIN F315	FINANCIAL MANAGEMENT

Sr.No.	Comp code	Course No	Course Title
74	1133	GS F221	BUSINESS COMMUNICATIONS
75	1134	GS F222	LANGUAGE LAB PRACTICE
76	1150	HSS F226	POST MODERNISM
77	1775	HSS F232	INTRO TO DEV STUDIES
78	1627	HSS F235	INTRODUCTORY PHILOSOPHY
79	1627	HSS F235	INTRODUCOTRY PHILOSOPHY
80	1628	HSS F236	SYMBOLIC LOGIC
81	1628	HSS F236	SYMBOLIC LOGIC
82	1776	HSS F266	STUDY PROJECT
83	1598	HSS F331	SANKARA'S THOUGHTS
84	1828	HSS F349	ECOCRTICISM
85	1341	INSTR F241	MICROPROCESSORS & INTERFACING
86	1342	INSTR F242	CONTROL SYSTEMS
87	1343	INSTR F243	SIGNALS & SYSTEMS
88	1344	INSTR F244	MICROELECTRONIC CIRCUITS
89	1660	INSTR F266	STUDY PROJECT
90	1345	INSTR F311	ELECTRO INST & INST TECH
91	1346	INSTR F312	TRANSD & MEASUREMENT TEC
92	1347	INSTR F313	ANALOG & DIGIT VLSI DES
93	1734	INSTR F366	LABORATORY PROJECT
94	1694	INSTR F376	DESIGN PROJECT
95	1352	INSTR F414	TELECOM SWIT SYS & NETWK
96	1351	INSTR F432	MEDICAL INSTRUMENTAITON
97	1527	IS F242	COMPUTER ORGANIZATION
98	1528	IS F243	DATABASE SYSTEMS & APPLICATIONS
99	1661	IS F266	STUDY PROJECT
100	1531	IS F301	PRINCIPLES OF PROGG LANG
101	1532	IS F311	COMPUTER GRAPHICS
102	1529	IS F341	SOFTWARE ENGINEERING
103	1530	IS F372	OPERATING SYSTEMS
104	1695	IS F376	DESIGN PROJECT
105	1465	MATH F241	MATHEMATICAL METHODS
106	1466	MATH F242	OPERATIONS RESEARCH
107	1467	MATH F243	GRAPHS AND NETWORKS
108	1468	MATH F244	MEASURE & INTEGRATION
109	1662	MATH F266	STUDY PROJECT
110	1469	MATH F311	INTRODUCTION TO TOPOLOGY

Sr.No.	Comp code	Course No	Course Title
111	1470	MATH F312	ORDINARY DIFF EQUATIONS
112	1696	MATH F376	DESIGN PROJECT
113	1085	ME F215	MECHANICAL ENGINEERING LABORATORY
114	1263	ME F241	MACHINE DESIGN & DRAWING
115	1264	ME F242	IC ENGINES
116	1266	ME F244	KINEMATICS & DYNAMICS OF MACHINERY
117	1663	ME F266	STUDY PROJECT
118	1267	ME F311	HEAT TRANSFER
119	1268	ME F312	ADV MECHANICS OF SOLIDS
120	1272	ME F342	COMPUTER AIDED DESIGN
121	1680	ME F366	LABORATORY PROJECT
122	1697	ME F376	DESIGN PROJECT
123	1620	ME F412	PRODUCT PLAN & CONTROL
124	1277	ME F415	GAS DYNAMICS
125	1482	PHY F241	ELECTROMAGNETIC THEO II
126	1483	PHY F242	QUANTUM MECHANICS I
127	1484	PHY F243	MATHE METHODS OF PHY
128	1485	PHY F244	MODERN PHY LAB
129	1666	PHY F266	STUDY PROJECT
130	1486	PHY F311	QUANTUM MECHANICS II
131	1487	PHY F312	STATISTICAL MECHANICS
132	1488	PHY F313	COMPUTATIONAL PHYSICS
133	1494	PHY F315	THEORY OF RELATIVITY
134	1683	PHY F366	LABORATORY PROJECT
135	607	PHY G531	SEL TOP IN SOLID ST PHY
136	380	PHY G541	PHY OF SEMICONDUCTOR DEV

## B2.6 REGISTRATION OF STUDENTS

The registration processes for both the semesters was completed on the first day of each semester.

	Number of students registered
Second Semester 2012-2013	2746
First Semester 2013-2014	2810
Summer Term 2012-2013	606

Details of Registration of students for the First Semester 2013-2014 are given in *Annexure B2-4*.

## B2.7 ACADEMIC AND PROFESSIONAL COUNSELING

During the year, the Academic Counseling Board (ACB), estimated the extent to which students under its purview fell short of the minimum academic performance, drew up a time-frame within which afflictions were to be removed, determined the package of courses for their registration in each semester and laid down the necessary stipulations for achieving intermediate targets. It further

monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of On-campus students under its purview during the year is given below:

		II Semester 2012-2013	I Semester 2013-2014
1.	Total number of students under the purview of ACB at the beginning of the semester	119	110
2.	No. of students declared out of its purview at the end of the semester	49	75
3.	No. of students who left the Institute during the semester	3	1
4.	No. of new students who came under the purview of ACB at the end of the semester	46	42
5.	Total No. of students under the purview of ACB during the next semester	110	75

Academic Counseling cell organized the counseling of students who were under the purview of ACB. It involved the involvement of faculty members as advisors and an external professional counselor whom the students could consult. The parents of students were also called to interact with the ACB.

## B2.8 AWARD OF DEGREES AND MEDALS

### (a) Award of Degrees

During the year, a total of 883 students graduated. The details on the award of degrees are given below.

	Number of degrees awarded
72 <sup>th</sup> Award (vide Board of Governors meeting)	
72.1 held on 21.12.12	2( 0)
72.2 held on 2.3.13	84( 10)
72.3 held on 4.3.13	1( 0)
73 <sup>th</sup> Award (vide Board of Governors meeting)	
73.1 held on 13.7.13	747(142)
73. 2 held on 15.7.13	2( 0)
74 <sup>th</sup> Award	
74.1 held on 24.10.13	3( 2)
74.2 held on 24.10.13	1( 0)
74.3(subject to approval from vide Board of Governors meeting in its next meeting)	43( 1)
<b>Total:</b>	<b>883(155)</b>

Statistical details of these degrees are given in 'Annexure B2-5, Annexure B2-6'



**(b) Award of Medals***For Academic Year 2012-2013*

The list of students who were awarded various medals, for the students graduated at the end of First Semester, Second Semester and Summer Term of the academic year 2012-2013 in the following table:

S.N.	ID.No.	Name	Sex	CGPA Obtained	Position Obtained	Type of Medal to be Awarded
Integrated First Degree Programmes (No. of students: 558)						
1.	2009A7PS011G	TUSHAR MANDAR	M	9.79	DISTINCTION	GOLD
2.	2009A3PS083G	JOSHI ABHIJIT MOHAN	M	9.56	DISTINCTION	SILVER
3.	2009A3PS001G	CHITHRA	F	9.53	DISTINCTION	BRONZE

**B2. 9 CAMPUS INTERVIEWS AND PLACEMENT****SEMESTER II, 2012-2013**

Number of companies which conducted campus interviews	51
No of interviews	--
No of offers made	270

**SEMESTER I, 2013-2014**

Number of companies which conducted campus interviews	46
No of interviews	--
No of offers made	174

The statistics (discipline-wise) and the list of organizations which conducted campus interviews during the year is given in *Annexure B2-7 (Part B2)*.

**B2.10 MoU**

BITS Pilani KK Birla Goa Campus has signed the Memoranda of Understanding with the following reputed organizations during 2013:

1. Lila Environmental and Digital solutions Pvt. Ltd. India.
2. DeerTree Technologies Pvt. Ltd India..
3. Hitachi India Pvt. Ltd. India.
4. Oil and national Gas Corporation, India.

**B2.11 DEPARTMENT-WISE REPORT**

In the following pages, a brief summary of the main activities and achievements of different departments of the campus is highlighted.

**B2.11.1 Department: Biological Sciences**

**Number of faculty members (as on 31 December 2013): 15**

<b>Senior Professors, Professors</b>	00
<b>Associate Professors</b>	05
<b>Assistant Professors</b>	11
<b>Lecturers</b>	00
<b>Visiting Faculty</b>	01

**Head of the Department: Meenal Kowshik**

**Contact details: meenal@goa.bits-bits-pilani.ac.in**

**Number of PhD Scholars: 33**

**Ph.D. Thesis Defended during the year: 02**

Mr. Vilas Desai defended his Ph.D thesis "Synthesis of Sol-gel Based Titanium dioxide Photocatalyst: Investigations on their Modification, Interaction with Metal ions, and Antimicrobial Activity". He carried out his work under Dr Meenal Kowshik

Mr. Mr. Mohd. Raeesh Shekh defended his Ph.D thesis "Studies on Biochemical and Genetic Aspects of the Anti Mycotic Principle Produced by a Selected Wild Type *Enterococcus faecalis*". He carried out his work under Dr Utpal Roy

**Ph.D. Thesis Submitted during the year: 01**

Ms. Vidhya Prabhudessai submitted her Ph.D thesis titled "Anaerobic digestion of food waste in a horizontal plug flow reactor. She carried out her work under Dr. Srikanth Mutnuri

**A. SPONSORED RESEARCH ACTIVITIES:**

Total number of Sponsored Projects in the department:

**(i) Ongoing projects:**

1. **Dr. Angshuman Sarkar**, BRNS (BARC), Study the effect of nanoparticles on protein synthesis and smallGTPases. 21.84 Lakhs (2011/37B/25/BRNS).
2. **Vijayashree Nayak**, BRNS, A novel biodegradable scaffold for cartilage tissue engineering, 23 Lacs (Ref No: 37B/4/BRNS).
3. **Veeky Baths**, DST FAST TRACK PROJECT FOR YOUNG SCIENTISTS, Protein-Ranking and Novel Intervention Strategies against Mycobacterium tuberculosis using Graph Theory and Bioinformatics Resources, 8.6L.
4. **Meenal Kowshik**, Ministry of Earth Sciences, Biological Synthesis of Metal Sulfide and Metallic Nanoparticles Using Halophilic Archaeobacteria, 17 lakhs.
5. **M.Srikanth**, Dept of Science, Technology and Environment, Goa, Biocatalytic production of a commercial textile dye Indigo, Rs. 5,83,200.
6. **M.Srikanth**, CSIR, Analysis of metabolically active bacterial species in anaerobic digesters, Rs. 20,00,000 (No.37(1555)12?EMR-II).
7. **Sumit Biswas**, BRNS, DAE, Structure elucidation of VC0395\_300 protein from *Vibrio cholerae* (leading to an alternate method of checking Cholera epidemics), INR 22 lakhs (approx), 2010/37B/51/BRNS/2493.
8. **Sumit Biswas**, DBT-NER, Physicochemical characterization of the Primary Sigma Factor of *Vibrio cholerae*, INR 32 lakhs, BT/210/NE/TBP/2010.

9. **Sumit Biswas**, DST, Studies on putative GGEEF/sensory box domain protein of *Vibrio cholerae*, INR 22 lakhs, SR/FT-LS/122/2010.
- (ii) **Projects sanctioned during the year**
1. **M.Srikanth**, DBT, Biotransformation of phosphogypsum by sulphate reducing bacteria, Rs. 5,21,000 (No.BT/PR7470/BCE/8/952/2013).
  2. **Judith M. Braganca**, BITS Seed Grant Project "Screening and Characterization of Hydrolytic enzymes from Halophilic archaea having biotechnological potential" (2013-2015).
  3. **Arnab Banerjee** SERB Young Scientist, Regulation of hypothalamic gonadotropin releasing hormone expression by putrescine in female rats; INR. 24 lakhs.
  4. **Dr. Malabika Biswas**, board of research in nuclear sciences (brns, dae), cloning and characterization of the promoters of staphylococcus.aureus temperate bacteriophage,  $\phi$  11 , (sanction no. 2013/37b/19/brns), 23,99,719 inr.
  5. **Raviprasad Aduri**, BITS Research Initiation Grant, INR. 2 Lakhs.
  6. Indrani Talukdar, DST-SERB, Alternative splicing in signal transduction and diseases; a genome wide approach 20 Lakhs, (Ref No): SERB/LS- 269/2013
  7. **Arnab Banerjee** BITS Research Initiation Grant, Effect of polyamines on the release of gonadotropin releasing hormone from the hypothalamus in female mice; INR. 2 Lakhs
- (iii) **Projects completed this year**
1. **Dr. Angshuman Sarkar**, BITS Seed Grant, Study the effect of cadmium toxicity on human neural cell line. (2011/AS/BITS SEED GRANT). 11.04Lakhs.
  2. **Vijayashree Nayak**, ABSTC, Association of salmonella typhi chronic infection and gall bladder carcinoma, 10 Lacs.
  3. A DST pilot project completed.

## B. PUBLICATIONS:

1. Chandrasekhar Chanda, **Angshuman Sarkar**, Srinivas Sistla, and Dibakar Chakrabarty; Anti-platelet activity of a three-finger toxin (3FTx) from Indian monocled cobra (*Naja kaouthia*) venom. *Biochem Biophys Res Commun.* 2013 Nov 22;441 (3):550-4. doi: 10.1016/j.bbrc.2013.10.125. Epub 2013 Oct 30.
2. Geethanjali Ravindran, Dibakar Chakrabarty and **Angshuman Sarkar**; Cadmium toxicity alters mRNA expression of Rho-like genes in A549 cell line. Accepted in *Journal of Cell and Molecular Biology* (2013).
3. Santimano M.C., Martin A., Kowshik M. and **Sarkar A.** (2013) Zinc Oxide Nanoparticles Cause Morphological Changes in Human A549 Cell Line Through Alteration in the Expression Pattern of Small GTPases at mRNA Level. *J. Bionanosci.* 7, 300-306.
4. **Sarkar A.**, Ravindran G. and Krishnamurthy V., A brief review on the effect of Cadmium toxicity: from cellular to organ level. *International Journal of Bio-Technology and Research* (IJBTR)ISSN 2249-6858 Vol. 3, Issue 1, 2013, 17-36.
5. Yogesh D. Walwalkar<sup>1</sup>, Rajni Gaiind<sup>2</sup> and **Vijayashree Nayak**<sup>1</sup> (2013) Study on Salmonella typhi occurrence in gall bladder of patients suffering from chronic cholelithiasis- a predisposing factor for carcinoma of gall bladder; *Diagnostic Microbiology and Infectious Disease*, 77, 1, 69-73.
6. Archana Sharma, Sumrita Bhat, Tanusree Vishnoi, **Vijayashree Nayak** and Ashok Kumar(2013)Three dimensional supermacroporous carrageenan-gelatin cryogel matrix for tissue engineering applications; *Biomed Research International*, Article ID 478279, 15 pages.
7. Kshipra Naik, **Meenal Kowshik**, (2013) Anti-biofilm efficacy of low temperature processed AgCl-TiO<sub>2</sub> nanocomposite coating, *Mater. Sci. Eng., C*, <http://dx.doi.org/10.1016/j.msec.2013.10.008>
8. Sushma Jadalannagari, Ketaki Deshmukh, Anita Kamra Verma, Richa Vohra, **Meenal Kowshik**, and Sutapa Roy Ramanan, (2013) Lanthanum-Doped Hydroxyapatite Nanoparticles as Biocompatible Fluorescent Probes for Cellular Internalization and Biolabeling, *Science of Advanced Materials*, doi:10.1166/sam.2014.1717.

9. Khipra Naik, Amrita Chatterjee, Halan Prakash and **Meenal Kowshik**, (2013) Mesoporous TiO<sub>2</sub> nanoparticles containing Ag ion with excellent antimicrobial activity at remarkable low silver concentrations, *Journal of Biomedical Nanotechnology*, doi:10.1166/jbn.2012.1567
10. Pallavee Srivastava & **Meenal Kowshik**, (2013) Mechanisms of Metal Resistance and Homeostasis in Haloarchaea, *Archaea*. doi.org/10.1155/2013/732864.
11. Pallavee Srivastava, Judith Braganca, Sutapa Roy Ramanan, **Meenal Kowshik**, (2013) Synthesis of silver nanoparticles using haloarchaeal isolate *Halococcus salifodinae* BK<sub>3</sub> *Extremophiles* doi: 10.1007/s00792-013-0563-3.
12. Maria Celisa Santimano & **Meenal Kowshik**, (2013) Altered growth and enzyme expression profile of ZnO nanoparticle exposed non-target environmentally beneficial bacteria, *Environmental Monitoring and Assessment*. Doi 10.1007/s10661-013-3094-6, 2013.
13. Maria Celisa Santimano, Ansie Martin, **Meenal Kowshik**, and Angshuman Sarkar, Zinc Oxide Nanoparticles Cause Morphological Changes in Human A549 Cell Line Through Alteration in the Expression Pattern of Small GTPases at mRNA Level, *Journal of Bionanoscience* Vol. 7, 300–306, 2013.
14. Vilas Desai, Bhanudas Naik, Narendra Nath Ghosh and **Meenal Kowshik**, (2013) Functionalization of AgCl/titania nanocomposite with folic acid - a promising strategy for enhancement of antimicrobial activity, *Science of Advanced Materials* Doi:10.1166/sam.2013.1472.
15. Vilas Desai and **Meenal Kowshik**, (2013) Synthesis and characterization of fumaric acid functionalized AgCl/titania nanocomposite with enhanced antibacterial activity, *Journal of Nanoscience and Nanotechnology*, 13, doi:10.1166/jnn.2013.7370.
16. Sushma Jadalannagari, Ketaki Deshmukh, Sutapa Roy Ramanan, **Meenal Kowshik**, (2013) Antimicrobial activity of hemocompatible silver doped hydroxyapatite nanoparticles by modified sol-gel technique, *Applied Nanoscience*, DOI 10.1007/s13204-013-0197-x.
17. Study of a Marine Microbial Fuel Cell on a Pilot Scale. G. Chithralekha and **Srikanth Mutnuri**, "Chemical Sciences Transactions", 2013.
18. Biochemical Methane Potential of Agro Wastes," Vidhya Prabhudesai, and **Srikanth Mutnuri** *Journal of Energy*, vol. 2013, Article ID 350731, 7 pages, 2013.
19. Role of additional carbon substrate on biodegradation of 1,4 dioxane using bacterial consortium enriched from industrial sludge P.Arulazhagan, I.T. Yeom, Sivaraman C, **Srikanth Mutnuri** and Rajesh Banu, accepted in *Advances in Environmental Biology* (2013).
20. Biodegradation of crude oil by *Pseudomonas aeruginosa* and *Escherichia fergusonii* isolated from Goan coast. Rajesh Pasumarthi, Sivaraman Chandrasekharan, **Srikanth Mutnuri**. Accepted in *Marine Pollution Bulletin* (2013).
21. *Terra Preta* as an Alternative for the Management of Sludge from Waste Water Treatment Plant (2013) accepted and to be published in "The Handbook on *Terra Preta* sanitation".
22. B. B. Salgaonkar, K. Mani and **Judith M. Braganca**. (2013) Accumulation of polyhydroxyalkanoates by halophilic archaea isolated from traditional solar salterns of India. 17:787-795 *Extremophiles* DOI 10.1007/s00792-013-0561-5.
23. **Judith M. Braganca** and I. Furtado (2013). Resistance of Halobacterium strain R1 to cadmium during growth in mineral salts medium devoid of growth factors. *Asian Jr of Microbiol. Biotech. Env. Sc.* 15(2): 299-302.
24. B. B. Salgaonkar, K. Mani and **Judith M. Braganca**. (2013) Characterization of polyhydroxyalkanoates accumulated by a moderately halophilic salt pan isolate *Bacillus megaterium* strain H16. *Journal of Applied Microbiology* 114, 1347–1356 doi:10.1111/jam.12135.
25. Purnima Singh, Masaharu Tsuji, Shiv Mohan Singh, **Utpal Roy**, (2013) Taxonomic characterization, adaptation strategies and biotechnological potential of cryophilic yeasts from ice cores of Midre Lovénbreen glacier, Svalbard, Arctic. *cryobiology*, 66, 167-175.
26. Ramya R, RamLal Thakur and **Utpal Roy** (2013). Antimicrobial prowess of a soil isolate *Bacillus subtilis*. *Worldwide Research Efforts in the Fighting Against Microbial Pathogens: From Basic Research to Technological Developments*. 72-77, BrownWalker Press Boca Raton, Florida • USA.

27. Baths, V. & **Roy U.** (accepted in 2013). Sequence analysis of Mycobacterial PE/PPE Proteins. Tuberculosis – A Comprehensive Clinical Reference. iConcept Press.
28. Ram K, **Biswas S\***. Search for Signatures in miRNAs Associated with Cancer. *Bioinformation*. 2013; 9(10): 524-527.
29. Bandekar Divya R, Singh D and **Biswas S\***. GGD(/E)EF Domain: A Ubiquitous Eubacterial Domain Confers Cell Toxicity. *Int J Biotech Res*. 2013 March; 3(1): 73-80.

### C. CONFERENCES ATTENDED/PAPERS PRESENTED:

1. Thrombolytic and Anti-platelet activities of semi-purified moon jellyfish tentacle extract. **Akriti Rastogi and Dibakar Chakrabarty**, at TSICON 2013 in BITS Pilani, K K Birla Goa Campus.
2. Anti-platelet activity of a 3FTx from Indian Monocled cobra venom. **Chanda Chandrasekhar, Sarkar Angshuman, Sistla Srinivas, Chakrabarty Dibakar**, at TSICON 2013 in BITS Pilani, K K Birla Goa Campus.
3. Russell's viper venom causes alteration in cellular morphology through regulation of small GTPase in a time and dose dependent manner. **Jigni Sayeda Pathan, Dibakar Chakrabarty and Angshuman Sarkar**, at TSICON 2013 in BITS Pilani, K K Birla Goa Campus.
4. Purification and characterization of an anticoagulant metalloprotease toxin from Russell's viper venom. **Mansi Baveja and Dibakar Chakrabarty**, at TSICON 2013 in BITS Pilani, K K Birla Goa Campus.
5. A spectrophotometric real-time method for assessment of fibrinolytic activity. **Mansi Baveja, Clarice Genevive Pereira and Dibakar Chakrabarty**, at TSICON 2013 in BITS Pilani, K K Birla Goa Campus.
6. Anti-platelet activity of a 3FTx from Indian Monocled cobra venom. **Chanda Chandrasekhar, Sarkar Angshuman, Sistla Srinivas, Chakrabarty Dibakar**, at TSICON 2013 in BITS Pilani, K K Birla Goa Campus.
7. Russell's viper venom causes alteration in cellular morphology through regulation of small GTPase in a time and dose dependent manner. **Jigni Sayeda Pathan, Dibakar Chakrabarty and Angshuman Sarkar**, at TSICON 2013 in BITS Pilani, K K Birla Goa Campus.
8. Synergistic effect of methylcobalamin on cadmium induced stress in human lung cell carcinoma (A549) cell line. **Geethanjali Ravindran, Snehal Nirgude, Dibakar Chakrabarty and Angshuman Sarkar**, at TSICON 2013 in BITS Pilani, K K Birla Goa Campus.
9. ZnO and TiO<sub>2</sub> nanoparticle induces cytotoxicity and morphological changes in A549 cells. **Ansie Martin and Angshuman Sarkar\***, at International NanoScience conference in 2013.
10. **Dr. Veeky Baths** Attended International workshop on Data Analysis at BITS PILANI KK BIRLA GOA Campus.
11. **Vijayashree Nayak** Yogesh Walwalkar; Study on molecular approach and signaling mechanism in gall bladder carcinoma. Hoffkings Institute Parel, Mumbai. Oct 19-21, 2013.
12. Archana Sharma, Tanusree Vishnoi, Ashok Kumar and **Vijayashree Nayak**, 2013, synthesis and characterization of three dimensional supermacroporous PEG Gelatin and Carrageena-gelatin cryogel matrix for tissue engineering applications, 4<sup>th</sup> International conference on recent advances in composite materials (ICRAM-2013).
13. Dr. Vijayashree Nayak DST-Lockheed Martin India innovation growth Programme, Goa, 2013.
14. **Kshipra Naik** and Meenal Kowshik (2013) Silver embedded titanium dioxide nanoparticle films as efficient inhibitors of biofilm formation. (Poster presented at Nanomedicine 2013, Barcelona, Spain, 11<sup>th</sup>-12<sup>th</sup> April 2013, organized by Select Biosciences.)
15. **Mohammed Monsoor Shaik** and Meenal Kowshik (2013) Preparation and characterization of Chitosan Nano-Silver biocomposites for wound healing applications. (Paper presented at International Conference on Nano Materials: Science, Technology and Applications, ICNM'13, Chennai, Tamil Nadu, 5<sup>th</sup>-7<sup>th</sup> Dec 2013) organized by B.S. Abdur Rahman University (India), Deakin University (Australia), and Universiti Teknologi Mara (Malaysia).
16. **Pallavee Srivastava**, Judith Braganca, Sutapa Roy Ramanan and Meenal Kowshik (2013) Green synthesis of silver nanoparticles by haloarchaeon *Halococcus salifodinae* BK6. (Paper presented at International Conference on Nano Materials: Science, Technology and Applications, ICNM'13, Chennai, Tamil Nadu, 5<sup>th</sup>-7<sup>th</sup> December, 2013) organized by B.S. Abdur

Rahman University, India, Deakin University, Australia and Universiti Teknologi MARA, Malaysia.

17. **Srikanth Mutnuri** - Key note lecture titled "**Terra Preta as an Alternative for the Management of Sludge from Waste Water Treatment Plant**" at 1st International Terra Preta Conference at Hamburg University of Technology, 29 – 30 August 2013. Also chaired two sessions.
18. **Srikanth Mutnuri** - Poster presentation titled "Microbial diversity in a pilot scale horizontal plug flow reactor set up for anaerobic digestion of food waste" at Elsevier's Water Research conference held during 20<sup>th</sup> January 2013 – 23<sup>rd</sup> January 2013 at Singapore Expo, Singapore.
19. B.B. Salgaonkar, Kabilan M. and **J.M. Braganca** (2013) Resistance of extremely halophilic archaea to metals. International Conference "Halophiles 2013' at University of Connecticut, Storrs, USA in June 2013. [Poster].
20. IshaKalra, Deepthi Das and **J. M. Braganca** (2013) Isolation and characterization of hydrolytic enzyme producing *Halogeometricum* sp. E3. International Conference "Halophiles 2013' at University of Connecticut, Storrs, USA in June 2013. [Poster].
21. Computational identification of functionally important sites in conotoxins. Sukanta Mondal. Oral presentation at 3rd Annual conference of the Toxinological Society of India and 1st International conference on "Biology of Natural Toxins" (TSICON 2013), 19 - 21 December 2013, Department of Biological Sciences, BITS-Pilani K K Birla Goa campus, Goa, India.
22. Purnima Singh and **Utpal Roy** (2013) Biotechnological potentials of yeasts and filamentous fungi from Austre and Vestre Broggerbreen glaciers of Svalbard, Arctic. The 54th Annual Conference of Association of Microbiologists of India (AMI-2013), the Platinum Jubilee Celebrations for Association of Microbiologists of India (AMI) (Estd: 1938) and International Symposium on 'Frontier Discoveries and innovations in Microbiology and its Interdisciplinary relevance' (FDMIR-2013) Date: November 17-20, 2013.
23. Ajay Chalasni and **Utpal Roy** (2013) Antimicrobial activity of a wild-type soil *Bacillus* isolate against gram-positive bacteria. The 54th Annual Conference of Association of Microbiologists of India (AMI-2013), the Platinum Jubilee Celebrations for Association of Microbiologists of India (AMI) (Estd: 1938) and International Symposium on 'Frontier Discoveries and innovations in Microbiology and its Interdisciplinary relevance' (FDMIR-2013) Date: November 17-20, 2013.p.134.
24. Ramya Ramachandran and **Utpal Roy** (2013) Antifungal substance produced by a soil isolate *Bacillus* sp. proved highly toxic against *Candida spp.* and *Aspergillus* sp. 3rd Annual Conference of the Toxinological Society of India & 1st International Conference on "Biology of Natural Toxins", at BITS Pilani KK Birla Goa Campus, Goa, 19 -21<sup>st</sup> November 2013. P.117.
25. **Dr. Malabika Biswas** Presented a poster in First International and Third National Conference on Biotechnology, Bioinformatics and Bioengineering ;28-29 June, 2013.

#### D. BOOKS PUBLISHED/EDITED DURING THE YEAR:

Baths, V. & Roy, U. (2013). Sequence analysis of Mycobacterial PE/PPE Proteins. Tuberculosis – A Comprehensive Clinical Reference. ISBN: iConcept Press (Book Chapter).

#### E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED

1. Dr. Dibakar Chakrabarty organized the **3rd Annual Conference of the Toxinological Society of India (TSI)** along with **1st International Conference on Biology of Natural Toxins (TSICON2013)** from 19th to 21st December, 2013. The conference was attended by around 100 toxinologists including participants from eight countries. The conference was inaugurated by Prof. Alan Harvey, Editor-in chief, Toxicon and President, International Society on Toxinology. Prof. Anthony T. Tu, Professor Emeritus, University of Colorado, USA, decorated with the Order of the Rising Sun by the Emperor of Japan was awarded the Lifetime Achievement Award by TSI. Ms. Mansi Baveja, Research scholar, Dept. of Biological sciences of our campus won the Best Poster Award jointly with Ms. Poulomi Dutta, of the University of Calcutta.
2. Organised "7<sup>th</sup> DST - PAC BBMM Meeting at BITS Goa Campus, 21<sup>st</sup> -22<sup>nd</sup>", 2013 at BITS Goa Campus.
3. DST-Young Scientist Expert Committee meeting for Life Sciences, conducted on 13-14 September, 2013.

**F. INVITED TALKS GIVEN BY BITS FACULTY:**

1. 'Venom: Death or Life?' Invited talk by **Dr. Dibakar Chakrabarty** on 29<sup>th</sup> October, 2013 at the Central Institute of Fisheries Education, Versova, Mumbai.
2. **Dr. Meenal Kowshik** on Silver Nanocomposites for Biomedical Applications, at the Select Nanomedicine 2013 conference, at Barcelona, Spain during April 11-12, 2013
3. **Dr. Meenal Kowshik** on Naturally Occurring Nanoparticles, at the Monsoon International Workshop on Green Nanotechnology organized by Sam Higginbottom Institute of Agriculture, Technology & Science and University of Missouri, at Bogmallo Beach Resort Goa, from August 6-7 2013.
4. **Dr. Meenal Kowshik** on Biocompatible silver doped hydroxyapatite and titanium dioxide nanomaterials with excellent anti-biofilm efficacy: potential candidates for bone tissue engineering, at the DST-JSPS symposium on Nanotechnology based innovation for Environmental, Energy & Biomedical Applications, at IISC, Bangalore, from December, 16-21, 2013.
5. **Dr. Sumit Biswas**, Invited talk at Dept. of Biotechnology, IIT Kharagpur on 10th-11th June, 2013, on "Signatures in microRNAs associated with cancer".
6. **Dr. Sumit Biswas**, Invited talk at the Certificate Course in Global Health, organized by Albert Einstein College of Medicine and BITS, Hyderabad, on "The Cholera Enigma", 2nd July, 2013
7. **Dr. Sumit Biswas**, Invited session talk at the First International and Third National Conference on Biotechnology, Bioinformatics and Bioengineering, organised by Society of Applied Biotechnology on 28th June, 2013 at Tirupati.

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT:**

1. **Prof. Katti Kateesh**, Professor, University of Missouri, delivered a lecture on: Green Nanotechnology Connects Western Medicine with Traditional Herbal Medicine and Oncological Implications of Tea-Based Gold Nanoparticles for Treating Prostate and other Cancers on August 5<sup>th</sup> 2013.
2. **Dr. Arun Kumar, Department of Health Sciences University of Delaware**, Targeted Drug Delivery to the Lungs, (17/08/2013)
3. **Prof. J R Bandekar, Secretary (BSC), BRNS, BARC and Head**, Radiation Biology Division, Microbiological Aspects of Radiation Processing of Foods, (23/08/2013)
4. **Prof. Rajan Sankaranarayanan**, CCMB, Bhatnagar awardee, on 13<sup>th</sup> September, 2013
5. **Prof. Paturu Kondaiah**, IISc, on 14<sup>th</sup> September, 2013
6. JC Bose Fellow **Dr. Samit Chattopadhyay**, Scientist F, NCCS, Pune, delivered a talk on "Orchestration of gene regulation: Implications in cancer metastasis, on 19<sup>th</sup> September 2013.
7. **Dr. Michel Torrijos**, Head - Technology Transfer, INRA, France delivered a lecture on 25/09/2013 The topic was on Anaerobic digestion
8. **Dr. A C Banerjea, HIV-1 Biology, Replication**, Pathogenesis and Stem cell Based Gene therapy, (7th December)
9. **Prof. Bikramjit Basu, Laboratory for Biomaterials**, Materials Research Center, Indian Institute of Science, Development of Multifunctional Bioceramics and External Field Stimulated Cell Functionality Modulation: A New Paradigm, (10/12/2013)

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. Ms. **Mansi Baveja**, Research Scholar, Dept. of Biological sciences won the Best Poster Award in TSICON2013.
2. Awarded an EMBL Partnership Travel Grant to present paper in EMBL Conference on Cancer Genomics.
3. **Ms. Kshipra Naik**, Research Scholar, Dept. of Biological sciences won the best poster award at efficient inhibitors of biofilm formation. (Poster presented at Nanomedicine 2013, Barcelona, Spain, 11<sup>th</sup>-12<sup>th</sup> April 2013, organized by Select Biosciences.) This poster was given the **Best Poster Award sponsored by ePosters.net – The Online Journal of Scientific Posters.**
4. **Mohammed Monsoor Shaik** and Meenal Kowshik (2013) Preparation and characterization of Chitosan Nano-Silver biocomposites for wound healing applications. (Paper presented at International Conference on Nano Materials: Science, Technology and Applications, ICNM'13, Chennai, Tamil Nadu, 5<sup>th</sup>-7<sup>th</sup> Dec 2013) organized by B.S. Abdur Rahman University (India), Deakin University (Australia), and Universiti Teknologi Mara (Malaysia). This paper was given the **Best Paper Award.**

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION**

BITS Pilani – University Immersion Scheme: Visited Goethe-University Frankfurt, Germany during June – July 2013 and worked with Prof. Dr. Volker Muller, Dept. of Molecular Microbiology & Bioenergetics, Biozentrum. Here she explored the cellular pools of compatible solutes in *Halobacillus halophilus*

**J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

1. IBM Server, Minitab Software, Genomics workbench, Mathematical
2. Atomic Absorption Spectrophotometer
3. PCR machine (BIORAD)
4. Shaking Incubator (Multi temperature)
5. Bacterial Cell Electroporator

**K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES: NIL**



**B2.11.2 Department: Chemistry**

Number of faculty members: 16

<b>Senior Professors, Professors</b>	02
<b>Associate Professors</b>	03
<b>Assistant Professors</b>	11
<b>Lecturers</b>	-
<b>Visiting Faculty</b>	-

**Head of the Department: Dr. Raghu Nath Behera, Assistant Professor****Contact details (email):** rbehera@goa.bits-pilani.ac.in**Number of PhD Scholars:** 21**Number of Project Fellows :** 03**No. of Post Doctoral Scientists :** 01**Ph.D. Thesis awarded during the year: 02**

1. Rupesh Kumar Mishra (Supervisor Prof. Sunil Bhand )
2. Amit Rajput (Supervisor Prof. N. N. Ghosh)

**Ph.D. Thesis Submitted during the year: 01**

1. Lizy Kanungo (Supervisor Prof. Sunil Bhand)

**A. SPONSORED RESEARCH ACTIVITIES:**

Total number of Sponsored Projects in the department: (Details are given below.)

**(i) Ongoing projects: 16**

<b>Name of the Investigator</b>	<b>Title of the project and duration</b>	<b>Amount sanctioned</b>	<b>Funding Agency</b>
Prof. Sunil Bhand (Consortium Principal Investigator) Prof AP Koley & Dr NN Ghosh as Co-investigator from the department Partners: i) BITS, Pilani-KK Birla Goa campus (Consortium Leader) ii) IIT Delhi (CARE and Dept of Physics), iii) NDRI Karnal, iv) Punjabi Univ. Patiala	Development of Biosensors and Micro-techniques for analysis of pesticide residues, aflatoxin, heavy metals and bacterial contamination in milk NAIP/C4/C10125  Duration: Jan 2008-March 2012 (4 years) ongoing *(extension up to March 2014 APPROVED with additional budget)	Revised approved cost from Rs. 7.298 crores to <b>26.26 crore</b> (Department share Rs. 4.44 crores). * 2013-14 budget of Rs. 1.12 Crores approved	National Agricultural Innovation Project NAIP funded by ICAR New Delhi and the World Bank.
Dr Sunil Bhand Consortium Co-Investigator	Detection and mitigation of dairy pathogens and detection of adulterants using chemical Biology	Department share 91.00 lakhs (total 6.2 crores for	National Agricultural Innovation Project NAIP

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
BITS, Pilani-KK Birla Goa Campus IIT Roorkee (Consortium Leader) NDRI Karnal	NAIP/Comp-4/C30032 Feb 2009-March 2012 (3 yrs) ongoing Duration: Jan 2008-March 2012 *(extension for up to March 2014 approved with additional budget)	the whole project)  *Additional budget of Rs. 21 lakh approved for BITS for 2013-14	funded by ICAR and the World Bank
Dr. NN Ghosh (P.I.)	Development of Nanostructured High Surface Area Alumina and Silica based adsorbent with Tailored Pore structure for Removal of Fluoride ions from Ground Water (Sanc no: 2010/37C/2/ BRNS/ 827) July 2010, Duration 3 yrs (ongoing)	Rs 29.0715 lakhs	Board of Research in Nuclear Science (BRNS), India
Dr.Halan Prakash(PI)	Design of peptides, peptide conjugates and investigations on their antimicrobial activity. (October-2011, 2, years).	10.00 lakhs	BITS, Pilani, ABG funding
Dr. Anjan Chattopadhyay (PI), Dr. Mainak Banerjee (co PI)	Spectroscopic investigation of the properties of low-lying electronic states of some chemopreventive retinyl nitrones and comparison of their light-induced properties with retinyl iminium ions (01(2681)/12/EMR-II)	Rs. 14 lakhs	CSIR N Delhi
Dr Amrita Chatterjee	Development of turn-on type Chemodosimeter for Selective Recognition of Sulfhydryl-Containing Amino Acids and Peptides in aqueous media. (SR/FT/CS 092/2009), 3 years	Rs. 19.86 lakhs	DST, N Delhi
Dr Mainak Banerjee	Redox-sensitive Vesicles of Cucurbit[7]urils as an Efficient Targeted Intracellular Drug Delivery Vehicle" (SR/FT/CS 023/2010), 3 yrs	Rs. 24.15 lakh	DST, New Delhi
Dr. Mainak Banerjee	Synthesis of Metal-Organic-Porous-Material Based Efficient Chiral Heterogeneous Catalysts by Post-Synthetic Modification and Their Applications in Asymmetric Reactions " (02(0075)/12/EMR-II).	23 lakhs	CSIR project
Dr. Ranjan Dey	Prediction of thermodynamic, thermophysical, transport, thermoacoustical and excess properties for binary, multicomponent liquid mixtures and ionic liquids	Rs.12 lakhs	CSIR N Delhi

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Dr. Arunashree Panda (PI) Research Associate & mentored by the department under Women in Science scheme	Novel Schiff base macro cycles containing Se–Se bonds and their reduced analogues: synthesis, characterization, comparative coordination chemistry and theoretical studies. (SR/WOS-A/CS-32/2010)	Rs.22.96 lakhs	DST New Delhi
Dr. Rabi Narayan Panda	Magnetic Properties of Metallic Nano-particles, 3 years	20.00 lakhs 01(2457)/11/EMR-II Date: 16-05-2011	CSIR, N Delhi
Dr. Rabi Narayan Panda	Synthesis and Characterization of binary and ternary transition metal nitrides , 3 years	18.95 lakhs SR/S1/PC/0063/2010 Date: 22-09-2011	DST, N Delhi
Dr Raghu Nath Behera	Study of Effective Interactions in Charged Colloidal Suspensions Duration 3 years.	10 lakhss (4.5 lakhs + one staff) 01(2513)/11/EMR-II of dated. 12/12/2011	CSIR N Delhi
Dr Narendra Nath Ghosh (and Prof. Paul Anthony Millner, University of Leeds)	Development and characterisation of nanomaterials for biosensors and biocatalysts	Rs 91 lakh	UKIERI (DST and British Council)
Dr. P. Bhavana	An investigation on derivatives of meso tetrathienylporphyrin as dye sensitized solar cells (3 years)	17,11,080	CSIR
Prof. Sunil Bhand (PI), Prof. NN Ghosh (co-PI), NDRI Karnal: Dr. Y.S.Rajput (Cooperating Centre PI, CCPI) IIT Delhi: Prof Sudhir Chandra (Cooperating Centre PI, CCPI)	Imprinted polymer for sensing and removal of selected antibiotic and pesticide residue, Project no. NFBSFARA/PHT-4007/2013-14 (October 2013 to March, 2015)	Rs. 125.25511 Lakh (BITS, Pilani-Goa Campus funding share Rs. 54.39110 lakh)	National Funds for Basic and Strategic Research in Frontier Areas of Agricultural Science, ICAR, New Delhi

**(ii) Projects sanctioned during the year: 03**

Name of the Investigator	Title of the project and duration	Amount sanctioned (Rs.)	Funding Agency
Dr. Narendra Nath Ghosh	“Preparation of Magnetically Separable, Mesoporous TiO <sub>2</sub> Catalysts and Study of their Catalytic Properties”	Rs. 16,30,000/-	CSIR, New Delhi
Dr. Subhadeep Banerjee	Development of Novel Polycyclic Heteroaromatic Push-Pull Type Chromophores Possessing Near-IR Optical Spectra	Rs. 2 lakhs	BITS-PILANI (Initiation Grant)

Name of the Investigator	Title of the project and duration	Amount sanctioned (Rs.)	Funding Agency
Dr. Venkatesan S. Thimmakondur	Non-adiabatic dynamics of molecules in ground and excited electronic states	Rs. 2 lakhs	BITS-PILANI (Initiation Grant)

**(iii) Projects approved during the year: 01**

Name of the Investigator	Title of the project and duration	Amount sanctioned (Rs.)	Funding Agency
Dr. Subhadeep Banerjee	Development of b,b'-Edge Fused pi-Elongated Donor-Acceptor Porphyrins Possessing Near-IR Optical Spectra	25 Lakhs(asked)	DST-Young scientist project

**(iv) Projects completed this year: 03**

Name of the Investigator	Title of the project and duration	Amount sanctioned (Rs.)	Funding Agency
Dr.Halan Prakash (PI)	Chemical modification of some metal ion binding peptides with photoactive molecules, and investigations on their photochemical DNA damage, and photo enhanced antimicrobial activity BT/PR13316/GBD/27/251/2009 ongoing 3yrs	Rs. 21.24 lakhs	Department of Biotechnology DBT, N Delhi
Dr. NN Ghosh (P.I.)	Development of a novel aqueous solution based "one pot" synthesis route for hard-soft-ferrite nano-composites and their properties." (ERIP/ER/0904500/M/01/1204) : May 2010, Duration 3 yrs	Rs 14.98lakhs	Defence Research and Development Organization (DRDO), New Delhi India
Dr. Anjan Chattopadhyay (PI)	Spectroscopic properties of some low-lying electronic states of alkali metal-rare gas and alkaline earth metal-rare gas molecules SR/FT/CS-52/2009 (3 yrs)	Rs. 5.46 lakhs	DST, N Delhi

**B. PUBLICATIONS: 31**

Authors	Title of the Publication	Journal	Vol	Pages
Amit Baising Rajput, Seikh Jiyaur Rahaman, M K. Patra, S R. Vadera, Gautam Sarkhel, and Narendra Nath Ghosh	Preparation, characterization and properties of flexible magnetic nanocomposites of NiFe <sub>2</sub> O <sub>4</sub> -polybenzoxazine-LLDPE	<i>Polymer-Plastics Technology and Engineering</i> 2013	52	1097-1105
A.B. Rajput., M. Sharifi , H V. Pol, M K. Patra, S R. Vadera, P M. Singru, N N. Ghosh	Preparation of flexible magnetic nanocomposites of linear low-density polyethylene-polybenzoxazine-magnetic nanoparticles and their mechanical and magnetic properties	<i>Journal of Nanoscience Letters</i> 2013	3	26
Amit Baising Rajput, Seikh Jiyaur Rahaman, Gautam Sarkhel, M K Patra, S Vadera, P M Singru, Yusuf Yagci and Narendra Nath Ghosh	Synthesis, characterization and properties of flexible magnetic nanocomposites of CoFe <sub>2</sub> O <sub>4</sub> -polybenzoxazine- LLDPE	<i>Journal of Applied Polymer Science</i> 2013, DOI:10.1002/APP.38426	128	3726-3733
Vilas Desai, Bhanudas Naik, Narendra Nath Ghosh and Meenal Kowshik	Functionalization of AgCl/titania nanocomposite with folic acid - a promising strategy for enhancement of antimicrobial activity	<i>Science of Advanced Materials, (Publisher: American Scientific Publishers) 2013</i>	5	431-439
M Mascioni, NN Ghosh, J M Sands and G R Palmese (2013)	“UV and electron beam induced cationic polymerization of glycidyl ethers: PART II – reaction of diglycidyl ether of bisphenol A”	<i>Journal of Applied Polymer Science (2013)</i> DOI: 10.1002/APP.39189	130	487-495
M Mascioni, NN Ghosh, J M Sands and G R Palmese (2013)	“UV and electron beam induced cationic polymerization of glycidyl ethers: PART I – reaction of monofunctional phenyl glycidyl ether”	<i>Journal of Applied Polymer Science (2013)</i> DOI: 10.1002/APP.39184	130	479-486
A B Rajput, S J Rahaman, G Sarkhel, and N N. Ghosh* 2013	2013 “Preparation and characterization of flexible Polybenzoxazine- LLDPE composites”	<i>Designed Monomers and Polymers</i>	16 [2]	177-184
B Naik, C H Manoratne, A Chandrashekhar, A Iyer, V S Prasad and N N Ghosh* 2013	“Preparation of TiO <sub>2</sub> , Ag doped TiO <sub>2</sub> nanoparticle and TiO <sub>2</sub> -SBA-15 nano composites using simple aqueous solution based chemical method and study of their photocatalytic activity”	<i>The Journal of Experimental Nanoscience</i>	8 [4]	462–479
A Rajput, S Hazra and N N Ghosh 2013	“Synthesis and characterization of pure single-phase CoFe <sub>2</sub> O <sub>4</sub> nanopowder via a simple aqueous solution based EDTA-precursor route”	<i>The Journal of Experimental Nanoscience</i>	8 [4]	629–639

Authors	Title of the Publication	Journal	Vol	Pages
Priyadarshini Parekh, Gokulakrishnan Subramanian, <u>Halan Prakash</u>	Visible light water disinfection using [Ru(bpy) <sub>2</sub> (phendione)](PF <sub>6</sub> ) <sub>2</sub> .2H <sub>2</sub> O and [Ru(phendione) <sub>3</sub> ]Cl <sub>2</sub> .2H <sub>2</sub> O complexes and their effective adsorption onto activated carbon	<i>Separation and Purification Technology (2013)</i>	109	9-17
Gokulakrishnan Subramanian, Priyadarshini Parekh, Halan Prakash	Photodegradation of Methyl orange and photoinactivation of bacteria by visible light activation of persulphate using a tris(2,2'bipyridyl)Ru(II) complex	<i>Photochemical and Photobiological Sciences (2013)</i>	12	456-466
Kshipra Naik, Amrita Chatterjee, <u>Halan Prakash</u> and Meenal Kowshik	Mesoporous TiO <sub>2</sub> nanoparticles containing Ag ion with excellent antimicrobial activity at remarkable low silver concentrations	<i>Journal of Biomedical Nanotechnology (2013)</i>	9	1-9
Rupesh K. Mishra, Geetesh K. Mishra, Dharma Teja V, Bengt Danielsson, Sunil Bhand	"A visual colorimetric dual readout bioassay for determination of pesticide residues in drinking water"	Chemical Sensors 2013	3	12
Diprati G. Khandare, Vikas Kumar, Anjan Chattopadhyay, Maninak Banerjee, Amrita Chatterjee	An aggregation-induced emission based "turn-on" fluorescent chemodosimeter for the selective detection of ascorbate ions	<i>RSC Advances</i>	3	16981
J. Theerthagiri, Shankar B. Dalavi, M. Manivel Raja and R.N. Panda	Magnetic Properties of Nanocrystalline ε-Fe <sub>3</sub> N and Co <sub>4</sub> N phases synthesized by Newer precursor route	Mater. Res. Bull. (2013)	48	4444-4448
Shankar B. Dalavi, J. Theerthagiri, M. Manivel Raja, R. N. Panda, Synthesis,	characterization and magnetic properties of nanocrystalline Fe <sub>x</sub> Ni <sub>80-x</sub> Co <sub>20</sub> ternary alloys,	J. Magn. Mag. Mater. (2013)	344	30-34
R. Prasath, P. Bhavana, Seik Weng Ng and Edward R. T. Tiekink	(2E)-1-(2-Methyl-4-phenylquinolin-3-yl)-3-(3-methylthiophen-2-yl)prop-2-en-1-One	Acta Crystallographica	E69	426
R. Prasath, P. Bhavana, Seik Weng Ng and Edward R. T. Tiekink	(2E)-1-(2,4-Dimethylquinolin-3-yl)-3-phenylprop-2-en-1-one	Acta Crystallographica	E69	428
Rangaraj Prasath, Purushothaman Bhavana, Seik Weng Ng, Edward R.T. Tiekink	Novel nitrothien-2-ylporphyrins: spectroscopic and electrochemical investigation on the role of conformation of porphyrins in their reactions	Inorganica Chimica Acta	405	339

Authors	Title of the Publication	Journal	Vol	Pages
R. Prasath, P. Bhavana, Seik Weng Ng and Edward R. T. Tiekink	3-Acetyl-2,4-dimethylquinolin-1-ium chloride	Acta Crystallographica	E69	1142
R. Prasath, P. Bhavana, Seik Weng Ng and Edward R. T. Tiekink	(2E)-1-(4-Bromophenyl)-3-[3-(4-methoxyphenyl)-1-phenyl-1H-pyrazol-4-yl]prop-2-en-1-one	Acta Crystallographica	E69	1143
R. Prasath, P. Bhavana, Sushil K. Gupta and Ray J. Butcher	[meso-5,10,15,20-Tetrakis(3-methylthiophen-2-yl)porphyrinato-k <sup>4</sup> N,N',N'',N''']-nickel(II) benzene hemisolvate	Acta Crystallographica	E69	652
Dipratn G. Khandare, Vikash Kumar, Anjan Chattopadhyay, Mainak Banerjee* and Amrita Chatterjee*	An aggregation-induced emission based "turn-on" fluorescent chemodosimeter for the selective detection of ascorbate ions"	RSC Adv. (2013)	3	16981 - 16985
Vikash Kumar, Dipratn G. Khandare, Amrita Chatterjee* and Mainak Banerjee*	DBSA Mediated Chemoselective Synthesis of 2-Substituted Benzimidazoles in Aqueous Media	<i>Tetrahedron Lett</i> (2013)	54	5505 - 5509
Souvik Pal, Manoj K. Sharma, Bengt Danielsson, Magnus Willander, Ratnamala Chatterjee, Sunil Bhand,	A miniaturized nanobiosensor for choline analysis	Biosensors and Bioelectronics (2013) <a href="http://dx.doi.org/10.1016/j.bios.2013.11.057">http://dx.doi.org/10.1016/j.bios.2013.11.057</a>		
Lizy Kanungo and Sunil Bhand	A survey of Aflatoxin M1 in some commercial milk samples and infant formula milk samples in Goa, India	Food and Agricultural Immunology (2013) <a href="http://dx.doi.org/10.1080/09540105.2013.837031">http://dx.doi.org/10.1080/09540105.2013.837031</a>		
Lizy Kanungo and Sunil Bhand	Fluorimetric Immunoassay for Multianalysis of Aflatoxins	Journal of Analytical Methods in Chemistry (2013) <a href="http://dx.doi.org/10.1155/2013/584964">http://dx.doi.org/10.1155/2013/584964</a>	2013	8
Rupesh K. Mishra, Geetesh K. Mishra, Dharma Teja V, Bengt Danielsson, Sunil Bhand	A visual colorimetric dual readout bioassay for determination of pesticide residues in drinking water	Chemical Sensors 2013	3	12
Maria Yakovleva, Sunil Bhand and Bengt Danielsson	The Enzyme Thermistor - a Realistic Biosensor Concept (review article)	<i>Analytica Chimica Acta</i> 2013	766	1-12
P.Udaykumar, T. Khanna and R. N. Behera	Equilibrium structure and properties of model colloidal suspensions	<i>Research Journal of Recent Sciences</i> (2013)	2 (ISC-2012)	61-66

Authors	Title of the Publication	Journal	Vol	Pages
A. Panda and R. N. Behera	Comparative study of E...N (E = Se/Te) intramolecular interactions in organochalcogen compounds using density functional theory	<i>Journal of Hazardous Materials</i> (2013, Accepted) (DOI: 10.1016/j.jhazmat.2013.12.041)		

➤ **Patents:**

1. Bhand sunil, pal souvik. **A biosensor kit for detection and analysis of chemical pollutants**, provisional indian patent application no. **3456/mum/2013** date of filing: 31 october 2013.
2. Bhand sunil, chandra sudhir, pandya hardik, bacher gautam & kanungo lizy. Provisional indian patent application no.1203/mum/2013 date of filing: 28 march 2013. "device for analysis of mycotoxins"

**C. CONFERENCES ATTENDED/PAPERS PRESENTED: 22**

Presenter	Title of Paper	Conference Name	Location	Date
Ranjan Dey	Thermodynamic and Viscometric Investigation of Binary and multicomponent Liquid Mixtures	International Conference on Emerging Trends in Chemical Sciences(ICETCS)	Schoo of Chemical Sciences, Central University of Gujarat, Gandhinagar	14-15 March, 2013
Subramanian Gokulakrishnan, Priyadarshini Parakh, Halan Prakash	Visible light Photoinactivation of bacteria by activation of persulphate with [Ru(bpy) <sub>3</sub> ] <sup>2+</sup> complex using light emitting diode array	Indo-UK Perspective on Water Quality: Threats, Technologies and Options organized by Royal Society of Chemistry, UK	IISc, Bangalore.	August 13-14, 2013
Priyadarshini Parakh, Subramanian Gokulakrishnan, Halan Prakash	Visible Light Inactivation of Bacteria by Ruthenium(II) Polypyridyl Complexes and Effective Removal of Complexes by Environment Friendly Adsorbents	Indo-UK Perspective on Water Quality: Threats, Technologies and Options organized by Royal Society of Chemistry, UK	IISc, Bangalore.	August 13-14, 2013
A. Panda, and R. N. Behera	Comparative study of E...N (E = Se/Te) Intramolecular interactions in Organochalcogen compounds using Density Functional Theory	3rd International Conference on Research Frontiers in Chalcogen Cycle Science & Technology	Delft, The Netherlands	May 27 – 28, 2013
C. Deoghare, R. N. Behera and R. Chauhan	Controlled Radical Polymerization of <i>N</i> -phenylitaconimide with Methyl Methacrylate: Experimental and Theoretical Study	3 <sup>rd</sup> FAPS Polymer Congress MACRO 2013	IISc, Bangalore, India	May 15-18, 2013
Tomy Cherian and R. N. Behera	Graphene Nanoribbons:An	International Conference on	Mahatma Gandhi University,	October 11-13,



Presenter	Title of Paper	Conference Name	Location	Date
	Extended Huckel Theory based study	Advanced Polymeric Materials	Kottayam, Kerala	2013
Anjan Chattopadhyay	Properties of the low-lying electronic states of 2,4-pentadien-1-iminium ion and its N-substituted analogues	19 <sup>th</sup> ISCB International Conference (ISCBC-2013) Recent Advances And Current Trends In Chemical And Biological Sciences	Department of Chemistry, University College of Science, Mohanlal Sukhadia University, Udaipur, Rajasthan	2nd - 5th March 2013
Desagani Dayananda, Venkateswara Rao Sarva, Sivankutty Vadakkethonippurathu Prasad, Jayaraman Arunachalam, Narendra Nath Ghosh	A simple aqueous solution based chemical methodology for preparation of mesoporous alumina: efficient adsorbent for defluoridation of water”	International Conference on Powder, Granule and Bulk Solids: Innovations and Applications	Thapar University, Patiala, India.	November 28-30, 2013
Subhenjit Hazra, Manoj K. Patra, Sampat R. Vadera and Narendra N. Ghosh	“A Novel Aqueous Solution Based ‘One-Pot’ Synthetic Route for Preparation of Soft-Hard Ferrite Nanocomposites Having High Saturation Magnetization and High Coercivity Value”	International Union of Materials Research Societies – International Conference in Asia	Indian Institute of Science in Bangalore, India.	December 16-20, 2013
Narendra N. Ghosh, Amit B. Rajput, Subhenjit Hazra, Sampat R. Vadera, Manoj K. Patra, Harshawardhan V. Pol	“Preparation of Flexible Magnetic Nanocomposite Sheets Composed of Magnetic Nanoparticles- Polybenzoxazine – LLDPE”	International Union of Materials Research Societies – International Conference in Asia-2013	Indian Institute of Science in Bangalore, India	December 16-20, 2013
Shankar B. Dalavi and Rabi N. Panda,	Magnetic Properties of nano-structured Co and Ni Synthesized by Modified NaBH <sub>4</sub> Reduction Route	International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA)	Thapar University, Patiala	2013
Shankar B. Dalavi, M. Manivel Raja and R. N. Panda	Chemical Synthesis, Characterizations and Magnetic Properties of Nanocrystalline Fe <sub>50</sub> Co <sub>50</sub> Alloy	58 <sup>th</sup> DAE Solid State Physics Symposium (DAE-SSPS-2013)	Thapar University, Patiala	2013
Prasath. R, Bhavana. P	Spectroscopic and electrochemical investigation on the role of conformation of nitrothien-2-ylporphyrins in their reactions	International conference on biological inorganic chemistry (ICBIC-2013)	Department of Chemistry, Periyar University,	20-22 February 2013
Prasath. R, Bhavana. P	Electronic and structural properties of new meso (5-aminothien-2-	International conference on emerging trends in	VIT University, Vellore	5-7 December 2013

Presenter	Title of Paper	Conference Name	Location	Date
	yl)porphyrin - ferrocene dyad and triads linked through azomethine bridge	chemical sciences (IETC-2013)		
Vikash Kumar, Deepratan Khandere, Amrita Chatterjee and Mainak Banerjee	DBSA catalized "Green" Synthesis of Benzimidazole Derivatives in Aqueous Media	New Emerging Trends in Chemistry	Jaipur	March 2013
Sunil Bhand	Ultrasensitive micro-biosensor devices for analysis of pesticide residues and aflatoxins	Workshop on bio-molecular electronics and organic nanotechnology for environment preservation	DTU, N Delhi India	December 13-15, 2013
Sunil Bhand	Miniaturized ultrasensitive micro biosensor devices	X-ray Lithography and Microfabrication	RRCAT DAE Indore	December. 5 & 6, 2013
Sunil Bhand	Ultrasensitive Biosensors for Environmental Analysis	Emerging Trends and Techniques in Chemistry	Department of Chemistry, YC Institute of Science Satara (Maharashtra)	Oct. 10-12 (2013).
Sunil Bhand	Novel Biochip technology for high throughput screening of pesticide residues in milk		NAIP, ICRISAT & ICAR at N. Delhi	July (2013).
Sunil Bhand	'Biosensors -practical applications at Symposium	Trends in Biochemistry, biotechnology and Agriculture - societal aspects	BARC Mumbai	April 29 (2013).
Geetesh Kumar Mishra & Sunil Bhand	Flow Injection Analysis biosensor for urea analysis in urine using Enzyme Thermistor	India-Japan workshop on biomolecular electronics & organic nanotechnology for environmental preservation	Delhi Technological University	13-15 December 2013
Dipratan G. Khandere, Vikash Kumar, Mainak Banerjee and Amrita Chatterjee*	Fuorescence turn-on Detection of ascorbate ions with aggregation induced emission active tetraphenylethylene	New Emerging Trends in Chemistry	Jaipur	March 2013

#### D. Books Published/Edited during the year:

##### (i) Chapters in books:

A. Panda and H.B. Singh (2013) 'NMR of organoselenium and organotellurium compounds', in The Chemistry of Organic Selenium and Tellurium Compounds, Volume 4, edited by Z. Rappoport. John Wiley & Sons, Ltd: Chichester, UK, pp. 277-445.

#### E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED: 01

Organized International Conference on "Emerging Technologies: Micro to Nano 2013" (ETMN-2013) Organized jointly by BITS, Pilani and CEERI, Pilani at KK Birla Goa Campus India Feb 23 and 24, 2013 (Program Co-Chair : Prof Sunil Bhand BITS Goa, Prof NN Sharma BITS Pilani and Dr Jamil

**Akhtar, CEERI Pilani, Prof NN Ghosh Technical Chair BITS Goa).** Received sponsorship from CSIR N Delhi. Published book of abstracts and CD.

#### F. INVITED TALKS GIVEN BY BITS FACULTY: 07

Authors	Host	Collaborators	Title	Date
Halan Prakash	National Seminar on Recent advances in Photochemistry(NSPC 2013)	St. Michael's College, in association with Inter university instrumentation centre, (IUI), Mahatma Gandhi University, Kottayam, Kerala	Visible Light Inactivation of Bacteria by Ruthenium(II) Polypyridyl Complexes: Effective Removal of Complexes using Environment Friendly Adsorbents	5,6 December 2013.
Dr. Venkatesan S. Thimmakondur	Dr. Ramadevi, AlagappaChettiar College of Engineering and Technology (ACCET), Karaikudi		Exploring Molecular Spectroscopy via Quantum Chemistry	18-20 November 2013
Sunil Bhand	INDIA-JAPAN Workshop on bio-molecular electronics and organic nanotechnology for environment preservation	Delhi Technology University & Kyushu Institute of Technology Japan, at DTU, N Delhi India	Ultrasensitive micro-biosensor devices for analysis of pesticide residues and aflatoxins	December 13-15, 2013
Sunil Bhand	Two day Interaction Meeting on X-ray Lithography and Microfabrication	Indus Synchrotron Utilization Division, RRCAT DAE Indore	Miniaturized ultrasensitive micro biosensor devices	December. 5 & 6, 2013
Sunil Bhand	UGC sponsored National Conference on "Emerging Trends and Techniques in Chemistry	Department of Chemistry, YC Institute of Science Satara (Maharashtra)	Ultrasensitive Biosensors for Environmental Analysis	Oct. 10-12 (2013)
Sunil Bhand	Agri Tech Investors Meet	NAIP, ICRISAT & ICAR at N. Delhi	Novel Biochip technology for high throughput screening of pesticide residues in milk	July (2013)
Sunil Bhand	Trends in Biochemistry, biotechnology and Agriculture -societal aspects	Biomedical Group, BARC Mumbai	'Biosensors - practical applications	April 29 (2013)

#### G. INVITED TALKS ARRANGED IN THE DEPARTMENT: - 02

1. Prof. Shyalava Majumdar, Dept. of Chemical Physics, TIFR, Mumbai, Nov. 4-7, 2013.
2. Prof. P. V. Bharatam, FRSC, Dept. of Medicinal Chemistry, NIPER, Mohali, Nov. 18, 2013.

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. Dr. Halan Prakash, Priyadarshini Parakh and Subramanian Gokulakrishnan won the Best poster award in the meeting, Indo-UK Perspective on Water Quality: Threats, Technologies and Options organized by Royal Society of Chemistry, UK, and held at Indian Institute of Science (IISc), Bangalore, August 13-14, 2013.
2. Dr. Rashmi Chauhan completed her one year sabbatical from (Prof. Kenneth J Shea Lab) Dept. of Chemistry, University of California USA and joined back to Institute.
3. Prof Bhand was nominated as member of the National Advisory Committee of 5<sup>th</sup> DST-SERC School at RRCAT Indore.
4. Dr. Narendra Nath Ghosh has been invited as committee member in CSIR SRF/RA Selection Committee in the area of "Material Sciences (CHEM/24)".
5. Dr. Narendra Nath Ghosh has become associate editor in the Journal of Nanoscience Letters Science jet.
6. Prof. Sunil Bhand has been appointed associate Editor for The Journal Chemical Sensors.
7. Prof Bhand was invited to join as member for American Association for Advancement of r of AAAS USA.
8. Dr. Anjan Chattopadhyay's name has been proposed as the Co-supervisor for the Ph.D thesis of Mr. Himank Kumar, (registered for Ph.D in VNIT, Nagpur), by Dept. of Chemistry, VNIT, Nagpur.
9. Dr. R. N. panda become a Guest editor for a special issue in Journal of Nanomaterials.
10. Mr. Gokulakrishnan Subramanian, a Ph.D student, received CSIR fellowship, April, 2013
11. Dr. Venkatesan S. Thimmakondur has been invited as a resource person for the "Research and Consultancy Activities under Technical Education Quality Improvement Program II (TEQIP II)" organized at Department of Chemistry, ACCET, Karaikudi, India.
12. Dr. Venkatesan S. Thimmakondur has been invited to review an article in "Journal of Physical Chemistry A", ACS Publications and to review an article in "Redox report", Maney Publishing.
13. Dr. Ranjan Dey chaired sixth session for Oral Paper Presentations in International Conference on Emerging Trends in Chemical Sciences (ICETCS-2013) at CUG, Gandhinagar, March 12-13, 2013.
14. Dr Rupesh Mishra, has been awarded Post-doctoral Fellowship at Aix Marseille Université, France (June 2013).

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION**

Name of Investigator	Title	Collaborators	Funding Agency
Dr. NN Ghosh (P.I.) Prof Sunil Bhand (Partner)	Development and characterization of nanomaterial for biosensors and biocatalysts	Prof. Paul A Milner, University of Leeds	DST- UKIERI

1. Prof Sunil Bhand visited (as Co-PI) to Prof Paul Millner's group (UK PI), at the University of Leeds UK during June-July 2013 to develop novel nanobiosensor and hold technical discussions under the Indo-UK project sponsored by UKIERI –DST (Indian PI Prof NN Ghosh).
2. Mr Souvik Pal (Ph.D. student of the Department of Chemistry under supervision of Prof. Sunil Bhand) visited Professor Paul lab. to work in the School of Biomedical Sciences at University of Leeds, UK on advanced materials and their applications in nanobiotechnology during September - October, 2013. This visit was part of the activities of DST and British Council sponsored project entitled "Development and characterization of nanomaterials for biosensors and biocatalysts (DST UKIERI Thematic Partnership Project)".

**J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

1. FT-IR with ATR
2. CHNS/O Analyzer
3. Fume Hood
4. Conductivity Meter (High End and Low End)
5. Digital Polarimeter (2014)

**K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES: DEPARTMENT SEMINARS DELIVERED BY STUDENTS AND FACULTY**

1. Dr. Ranjan Dey, Property Prediction of binary and higher order Liquid Mixtures, on 07.10.2013.
2. Dr. Narendra Nath Ghosh, Novel Synthetic Strategies for Preparation of Magnetic Nanoparticles, Polymer-Ferrite Nanocomposites And Mesoporous Advanced Catalysts on 29.10.2013
3. Dr. Halan Prakash, "Novel strategies for activation of persulphate and degradation of persistent pollutants" on 26.11.2013.
4. Dr. S. Banarjee, Chemistry of pyroll modified porphyrine, 15<sup>th</sup> oct 2013.

**B2.11.3 Department: Chemical Engineering**

Number of faculty members (as on 17 January 2014):12

<b>Senior Professors, Professors</b>	2
<b>Associate Professors</b>	2
<b>Assistant Professors</b>	4
<b>Lecturers</b>	4
<b>Visiting Faculty / Consultant R &amp; D</b>	0

**Head of the Department: Prof. Srinivas Krishnaswamy**

**Contact details (email):** srinivas@goa.bits-pilani.ac.in

**Number of PhD Scholars: 2**

**Ph.D. Thesis Submitted during the year: 1**

**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department: 4

Details are given below:

**(i) Ongoing projects:****1. High - efficiency energy conversion in steam boilers using unmixed combustion**

PI: Dr. Srinivas Krishnaswamy

Budget: Rs. 31,05,000 (from DST)

Collaborators: Thermax Limited, Pune (funding Rs. 4,00,000/-)

**2. Sea water desalination using Liquefied Natural Gas (LNG) refrigeration**

PI: Dr. Srinivas Krishnaswamy

Budget: Rs. 3,82,21,000/-

Funding agency: GAIL India Ltd

**3. Coke reduction and Selectivity increase in allyl chloride process**

PI: Dr. Srinivas Krishnaswamy  
 Amount Sanctioned: Rs. 10,00,000/-  
 Funding agency: ABG Group

**4. Studies on separation and purification of rare earth metals from red mud / used catalyst**

PI: Dr. S. S. Baral  
 Budget: Rs.2.00,000/-  
 Funding agency: BITS Pilani K K Birla Goa campus

**(ii) Projects sanctioned during the year: 4****1. Investigating the effect of co-digestion and advanced sludge pre-treatment methods on the anaerobic conversion potential of the organic wastes**

PI: Dr.S.S.Baral  
 Total grant Rs 27,48,800/-  
 Funding Agency: DBT, New Delhi

**2. Development of efficient bioleaching process for the metal recovery from spent catalysts"**

PI: Dr.S.S.Baral  
 Amount sanctioned : Rs. 26,56,600/  
 Funding Agency : DBT

**3. Transport processes in gas-liquid slug-annular and annular flow regimes in microchannels**

PI: Dr. Raghavendra Gupta  
 Budget: Rs.2.00,000/-  
 Funding agency: BITS Pilani K K Birla Goa campus

**4. Transport processes in slug-annular and annular flow regimes in microchannels**

PI : Dr.Raghavendra Gupta  
 Budget : 23,00,000  
 Funding agency : DST-SERB

**(iii) Projects completed this year:****1. Studies on an enhanced efficiency contactor and once-through aqueous ammonia process based flue gas CO<sub>2</sub> capture process for reuse in fertilizer production**

PI: Dr. Srinivas Krishnaswamy  
 Amount Sanctioned: Rs. 10,00,000/-  
 Funding agency: ABG Group

**B. PUBLICATIONS:**

The faculty of the department published 6 papers in international/national refereed journals during the year

Authors	Title of the Publication	Journal	Vol.	Pages
Sutapa Roy Ramanan	Synthesis of silver nanoparticles using haloarchaeal isolate <i>Halococcus salifodinae</i> BK	<i>Extremophiles</i>	17 (5)	821-831
S. S. Baral and G. Surendran	Statistical design of experiments for the Cr(VI) adsorption on weed <i>Salvinia cucullatall</i>	Environmental Engineering and Management journal	12	1535-1544

**C. CONFERENCES ATTENDED/PAPERS PRESENTED: TOTAL: 5**

Presenter	Title of paper	Conference Name	Location	Date
Krishnaswamy Srinivas & K.N.Ponnani	Redefining Approaches to Waste water characterization and treatment processes by sectorial differentiation	International Exhibition and Conference on Water Technologies, Environmental Technologies and Renewable Energy	Mumbai	Feb 2013
Krishnaswamy Srinivas & K.N.Ponnani	An Alternative Energy Efficient and Zero Emission Process Scheme For Process Condensate Treatment in Ammonia Fertilizer Plants	9 <sup>th</sup> World Congress of Chemical Engineering (WCCE) and 11th International Conference on Gas-Liquid & Gas-Liquid-Solid Reactor Engineering	Seoul, South Korea	August 18 – 23, 2013
S. D. Manjare	Distillation of a Multicomponent Mixture: Performance Analysis using Equilibrium Based Method	International Conference on Frontiers in Chemical Engineering,	NIT Rourkela,	December 9-12, 2013
S. D. Manjare	Fuel cell	2nd International Hydrogen and Fuel Cell Conference by Hydrogen Association of India,	Cidade de Goa in Panji, Goa	1-3 December 2013.
S.S. Baral and P.V. Rao	Pre-treatment of organic composite waste mixtures for enhanced biomethanation	3rd International Engineering Symposium,	Kumamoto University	March 4-6, 2013

**D. BOOKS PUBLISHED/EDITED DURING THE YEAR: TOTAL: NIL****E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

1. Dr.S.D.Manjare has conducted workshop on “Environmental Management and Audit” at Dept of Chemical Engg at Padmashri Dr. Vitthalrao Vikhe Patil Institute of Technology and Engineering (Polytechnic) Pravaranagar during 25th Feb 2013 to 1st March 2013.

**F. INVITED TALKS GIVEN BY BITS FACULTY:**

Authors	Host	Title	Date
Dr.Raghavendra Gupta	SVERI's College of Engineering, Pandharpur	CFD Modelling of Flow in Microchannels	Nov, 2013
Dr.Raghavendra Gupta	Graphics Era University, Dehradun	Mathematical Techniques in Engineering Applications (ICMTEA) 2013, Title of Talk: Modelling Flow of Bubbles	Oct, 2013

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT:**

Name of the visiting faculty	Topic	Date
Prof. Ananth, IISc, Bangaluru	Statistical and solution Thermodynamics	14-16 <sup>th</sup> Nov, 2013
Prof. C. Ganguly, IAEA	Nuclear Engineering	16-18 <sup>th</sup> Dec, 2013

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

**Name of the Award:** Outstanding Potential for Excellence in Research and Academics (OPERA) Award

Faculty Name: Jegatha Nambi Krishnan

Total Amount : 15,00,000/

Duration : 5 years

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION**

**J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

- a. HEAT-Int
- b. ProDyn Software
- c. Gas Chromotography
- d. Seven Multi-ion meter
- e. Bomb Calorimeter
- f. BET Surface Area analyser
- g. Refractometer
- h. BOD Incubator
- i. Orsat apparatus
- j. Rotary Vacuum Evaporator
- k. Differentila Scanning Calorimeter
- l. Gas Hydrate autoclave
- m. Atomic absorption Spectrometer
- n. Reid vapour pressure apparatus
- o. Electrochemical work station.

**K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES: NIL**

**B2.11.4 Department: Computer Science & Information Systems**

Number of faculty members (as on 31 December 2013):16

<b>Senior Professors, Professors</b>	00
<b>Associate Professors</b>	03
<b>Assistant Professors</b>	04
<b>Lecturers</b>	09
<b>Visiting Faculty</b>	00

**Head of the Department: Dr. B. M. Deshpande**

**Contact details:** *bmd@goa.bits-pilani.ac.in*

**Number of PhD Scholars: 12**

**Ph.D. Thesis Submitted during the year: 01**



**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department: 03. Details are given below.

**(i) Ongoing projects:**

- a. Dr. S.K. Sahay is Member of the Indian Gravitational Wave Observatory (IndiGO) Consortium also known as LIGO-India.
- b. Condition based monitoring of pipeline using wireless sensor network"  
GAIL sponsored project  
Faculty member(s) proposing research  
Principal Investigator: K. R. Anupama  
Co-investigator(s): (i) Lucy Gudino, (ii) Neena Goveas
- c. Design and Implementation of High Performance Energy Efficient Scheduling Algorithms for Multiprocessor / Multicore Hard Real – Time Systems  
Institute Seed Grant  
Faculty member(s) proposing research  
Principal Investigator: Biju K R  
Co-investigator(s): B.M. Deshpande

**(ii) Projects sanctioned during the year: Nil****(iii) Projects completed this year: 01**

Dr. Biju R., "A Modeling and Design Framework for Social Networking Infrastructure on Mobile Devices using P2P overlays".

ABG sponsored project  
Faculty member(s) proposing research  
Principal Investigator: Shanmugasundaram Balasubramaniam  
Co-investigator(s): (i) Biju K. Raveendran, (ii) Murali Parameswaran

**B. PUBLICATIONS:(JOURNALS).**

Ramprasad Joshi & Bharat Deshpande, Theoretical Study of Scalability; Scalability of Randomized Search Heuristics for Many objective Problems, Memetic Computing

**C. CONFERENCES ATTENDED/PAPERS PRESENTED:**

1. Ramprasad Joshi, Bharat Deshpande, Scalability of Population Based Search Heuristics for Many Objective Optimization, In: Anna Esparcia Alcàzar, (Ed.), Applications of Evolutionary Computation, 16th European Conference, EvoApplications 2013, Vienna, Austria, April 3-5, 2013, Proceedings. Springer, Heidelberg. pp. 479-488. 2013.
2. Digalwar, M, Mohan, S. ; Raveendran, B.K, "Energy aware real time scheduling algorithm for mixed task set", International Conference on Advanced Electronic Systems (ICAES), pp. 325 - 327, 2013, DOI: 10.1109/ICAES.2013.6659421.
3. Digalwar, M, Mohan, S. ; Raveendran, B.K, Dynamic Voltage and Frequency Scaling Scheduling Algorithm for Mixed Task Set, IEEE 8th International Conference on Industrial and Information Systems (ICIIS), 2013.
4. G S Raghavendra; Application of Ant Algorithm Variants to Single Track Railway Scheduling Problem, 3rd International Conference on Soft Computing for Problem Solving, December 27-30 /2013, Noida.
5. Paritosh Ramanan, Prathamesh Gaikwad, Sreejith.V - Achieving connectivity in an Unstructured Wireless Sensor Network using Optimal Assignment of Mobile Nodes-ICN-2013, January 27, 2013 to February 1, 2013 ISBN: 978-1-61208-245-5 - Seville, Spain.
6. TSRK Prasad attended Second Annual Workshop on Enhancing Research Collaborations through NKN, organized by National Knowledge Network (NKN) at IISc, Bangalore from 17.10.2013 to 19.10.2013.
7. S.K. Sahay attended Gravitational Wave Physics and Astronomy Workshop, December 17 - 20, 2013, IUCAA, Pune, 2013.
8. S.K. Sahay attended meeting on Astronomy and Physics with LIGO-India, December 2013, IUCAA, Pune.

9. Dhongdi S.C., Anupama K.R., Gudino L.J., and Sant R.H., "Deployment analysis of underwater acoustic sensor network on miniature test-bed," in proceeding of 7th International Conference on Advanced Computing and Communication Technology, ICACCT, 2013, Vol 1, pp 18-24.
10. Lucy Gudino Attended International Workshop on Data Analytics and Applications, 26<sup>th</sup> Feb. to 1<sup>st</sup> Mar. 2013, organized by Department of Computer Science and Information Systems, BITS-Pilani.
11. Lucy Gudino Chaired a session at National Conference on " Modern Trends in Advanced Computing" MTAC 2013, organized by Goa Engineering College, Goa.
12. Lucy Gudino, Biju K R, Bharat Deshpande, Geeta Patil, Shubhangi Gawali Attended two day event titled "**Intel India Academic Forum (Intel IAF) 2013**" on September 18th & September 19th, 2013 at Hotel Grand Hyatt, Goa.
13. Resource faculty at winter school on "Industrial Applications of Mechatronics" December 2013 and delivered a lecture on "**Wireless Sensor Network:from Basic Theory to Applications**".
14. Shubhangi Gawali Attended workshop on VMWorks conducted by E&I Dept.of BITS Goa.
15. Shubhangi Gawali Attended STTP on Android with Beagle Board conducted by PCCE, Goa

**D. Books Published/Edited during the year:**

**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

Computer Science Departments of K K Birla Goa Campus and Pilani campus jointly conducted International Workshop on Data Analytics & Applications (IWDAA - 2013) at K K Birla Goa campus from 26/02/2013 to 01/03/2013,

**F. INVITED TALKS GIVEN BY BITS FACULTY:**

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT:**

1. Dr. Akshara Kaginalkar, Associate Director & HoD, C-DAC, Pune gave a invited talk on Overview of C-DAC's R&D program, December 06, 2013.
2. Prof. Subhjit Roy IIT Kanpur gave a invited talk on From Concrete Examples to Heap Manipulating Programs, September 2013.
3. Dr. Raghavendra K R, IIIT Bangalore delivered a invited talk on SAT/SMT solvers, 14/11/2013.
4. Dr. Santonu Sarkar Principal Research Scientist, Infosys Research Lab delivered a invited talk on Challenges in Managing Complex Business Applications, 1/12/2013.
5. Dr. Anandan, Director at Microsoft Research India, gave a invited talk on Overview of Research at Microsoft on 20/08/2013.
6. Professor Margaret Burnett, Professor at School of Electrical Engineering and Computer Science, Oregon State University, Oregon delivered a invited talk on Information Foraging Theory in Software Navigation, 02/04/2013.
7. Prof. M.V. Pitke (Retired Professor from TIFR Mumbai) delivered a invited talk on Microwave Technology and the new Opportunities and Challenges, 19/08/2013.

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS**

1. Dr. Biju K R felicitated with Distinguished faculty award at BITSAA Global Alumni Meet 2013.
2. Two students Ms. Anwaya Aras and Ms. Apoorva Deshpande awarded the prestigious Google Anita Borg Memorial fellowship.
3. Two students Ms. Neha Nayak and Mr. Aditya Palnitkar got admission at Stanford University.

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION**

**J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

- High Performance Computing Server (Kosambi) installed

**K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES: NIL**

**B2.11.5 Department: Economics**

Number of faculty members (as on 31 December 2013): 09

<b>Senior Professors, Professors</b>	None
<b>Associate Professors</b>	<b>1</b>
<b>Assistant Professors</b>	<b>4</b>
<b>Lecturers</b>	<b>2</b>
<b>Visiting Faculty</b>	<b>2</b>

**Head of the Department: Dr. Debasis Patnaik****Contact details: 0832-2580-429**[marikesh@goa.bits-pilani.ac.in](mailto:marikesh@goa.bits-pilani.ac.in)**Number of PhD Scholars: 08****Ph.D. Thesis Submitted during the year: None****Ph.D. Thesis Submitted during the year: None****A. Sponsored Research activities:****(i) Ongoing projects:**

- **Project title:** A Study on Usage and Impact of Information and Communication Technology (ICT) in Secondary Schools
- **Principle investigator(PI):** Dr Ch V V S N V Prasad  
**Co – Investigator: Dr Debasis Patnaik**
- **Funding agency:** BITS SEED GRANT

**(ii) Projects sanctioned during the year**

- **Project Title:** A Study on Usage and Impact of Information and Communication Technology (ICT) in Secondary Schools
- **Principal Investigator:** Dr Ch V V S N V Prasad
- **Co – Investigator: Dr Debasis Patnaik**
- **Funding Agency:** BITS SEED GRANT
- **Funding amount:** Rupees 7.5 Lakhs
- **Project Duration:** 2 years

**B. PUBLICATIONS:****Debasis Patnaik**

1. "Popular Literature, Translation and Interrogating Post Colonial India. Interrogating Post-Colonial India" International Journal of Humanities and Social Sciences, Aug.2013.
2. Selection problems in Probit, Logit, Tobit Models in Economic Applications published in International Journal of Computational Engineering, Aug 2013.
3. Springer Verlag Journal on Artificial Intelligence (AI): Paper titled "Economic, Cognitive and Philosophical Implications of AI" in Jan2013. Published in AI and Society, Springer 2013.

4. Patnaik Debasis and Jahnvi Potluri-“Economics of Education: Inequality in Primary Education in Districts of Andhra Pradesh\_ A Principal Components Study- International Journal of Management, IT and Engineering, vol-3, Issue-12; ISSN 2249-0558 Dec 2013.
5. Mental health and Management Information System (CSR) a joint paper with Neha Repal published as a Chapter in a Book on Corporate Social Responsibility, Nov2013 edited by Dr Rekha Gaonkar, et.al...

#### **Mridula Goel**

1. **Capital Adequacy and its Relevance to the Indian Banking Sector: A Study of Four Indian Banks, V.K. Narasimhan and Mridula Goel, *International Research Journal of Social Sciences* ISSN 2319–3565 Vol. 2(11), 1-6, November (2013).**
2. Online publication at <http://www.indiastat.com/default.aspx> on State Level Inequalities in Economic Development. February 2013.
3. Published a paper on Role of CSR in Entrepreneurship Development, Mridula Goel, Tanmaya & Kirti in book: ***Corporate Social responsibility***, eds. R. Gaonkar & V R Chari, APH 2013.

#### **A. K. Mishra**

1. **A. K. Mishra**, K. Narendra and Bibhu Prasad Kar ‘Growth and Infrastructure Investment in India: Achievements, Challenges, and Opportunities’, *Economic Annals*, Volume LVIII, No. 196, pp.51-70(January-March 2013).
2. **A. K. Mishra**, Jigar N. Gadhia, Bibhu Prasad Kar, Biswabas Patra and Shivi Anand ‘Are Private Sector Banks More Sound and Efficient than Public Sector Banks? Assessments Based on Camel and Data Envelopment Analysis Approaches’, *Research Journal of Recent Sciences (RJRS)*, 2 (4), pp.28-35 (2013).
3. G.M Jha, A. Agrawal, A. Gupta and **A.K. Mishra** ‘Determinants of FDI in South Asia’, *International Research Journal of Social Sciences (IRJSS)*, 2 (1), pp.1-6 (2013).

#### **Chapters in Edited Book:**

**A. K. Mishra**, S. Satpathy and B. Patra ‘Is Sustainable Mining in Goa Possible? Some Issues and Empirics’, in Mishra, Padmaja and Amarendra Das (eds.) ***Mining: Economic, Environmental and Social Implications***, New Delhi: Abhijit Publications (2013)

#### **Srivastava A. Mathur**

S.K. (2013). Relative Prices, Trade, Technology and Wage Inequality – Evidence from India. *Foreign Trade Review*, Vol.48, 3, Pp.359-381.

#### **Ch V V S N V Prasad**

1. Prasad, Ch.V.V.S.N.V. (2013) ‘Supply Chain Management Practices and its Implementation: A Case Study’, *Supply Chain Pulse*, vol. 4, no. 1, pp.26-35.
2. Prasad, Ch.V.V.S.N.V. & R. Sivadas (2013): The Usage and Impact of ICT in Secondary Schools: A Case Study, *Rajagiri Management Journal*, Vol.7:2, 52-58.
3. Prasad, Ch.V.V.S.N.V. & R. Sivadas (2013): Impact of Online Marketing on Small and Medium Size Business: A Case Study, *Rajagiri Management Journal*, Vol.7:2, 90-97.

#### **Session chair in conferences**

1. Attended as session chair in national conference on society, state and market held at Dr K S Hegde Institute of Management Nitte University, Nitte.

#### **Debdulal Thakur**

1. Toll Roads or Non-Toll Roads: The debate in a nutshell’, *SAARC Journal of Transport*, Vol.XIV, No.9, September 2013.
2. Right to Education and Infrastructural Facilities in Schools of West Bengal: A brief Review’, - authored with Shrabani Mukherjee, *Communique*, Volume 7, Number 1 (Issue funded by Indian Council of Social and Scientific Research (ICSSR), New Delhi) March 2013.

3. Growing Dependence on Transfers and Rising Disparity in Municipal Finances in India: Evidence from Thirteenth Finance Commission', Co-authored with Shrabani Mukherjee, IJEF, e-ISSN: 2321-5933, p-ISSN: 2321-5925. Volume 1, Issue 1 (May.–Jun. 2013), Pp31-41.
4. Municipal Finance Matters'- Co authored with Om Prakash Mathur, S.Chowdhury & A.K.Halen, NIPFP, New Delhi.
5. Panchayats in West Bengal- Towards Developing the Pedagogy of the Common Mass- a brief note', Mulyayan, Volume 1, Number 2, Pp.36-43, Kolkata, West Bengal.

#### **Shrabani Mukherjee**

1. Coexistence of Formal and Informal Credit Markets in India —A Study of Entrepreneurial Choices for House-based Industries', Research in Applied Economics, Macrothink Institute-USA, ISSN 1948-5433, Vol. 5, No. 3, September 2013.
2. Right to Education and Infrastructural Facilities in Schools of West Bengal: A brief Review', - coauthored with Debdulal Thakur, *Communique*, Volume 7, Number 1 (Issue funded by Indian Council of Social and Scientific Research (ICSSR), New Delhi) March 2013, ISSN 0973-8584.
3. Growing Dependence on Transfers and Rising Disparity in Municipal Finances in India: Evidence from Thirteenth Finance Commission', Co-authored with Debdulal Thakur, IJEF, e-ISSN: 2321-5933, p-ISSN: 2321-5925. Volume 1, Issue 1 (May.–Jun. 2013), Pp31-41.

### **C. CONFERENCES ATTENDED / PAPERS PRESENTED:**

#### **Debasis Patnaik**

1. Paper on "Devising Bases for Indigenous Knowledge for Pro Poor Agricultural Systems' Presented in Manchester University, UK from 5<sup>th</sup>- 10 Aug 2013.
2. Chaired two sessions on 'Issues in Rural Development' in the above IUAES Conference at Manchester from Aug 5-10, 2013.
3. Presented a Paper on 'Climate change Finance" in International Conference on Business, Finance, IT held by Research Development Research Foundation, Jaipur, Rajasthan held in International Center, Goa on 29 September 2013.
4. Presented a paper on "Systems Approach to Innovation management" to Auckland, New Zealand for Conference Presentation and Publication in GIABR Conference on 24 - 25 Oct 2013.
5. Presented paper on 'Labor force as important component of Development Planning 'to National Conference in Economic organized by Goa Economic Association in collaboration with Indian Economic Association held in Administrative building Seminar Hall, Goa University on 11 Nov 2013.
6. National Conference on 'India's Political Economy in Transition: The Crisis of Governance, Democracy and Development' Department of Political Science, Goa University, India 21-22nd December 2013. Presented a paper on India's uneven development growth path: An Industrial Perspective.
7. Presented a paper on "Public Health with Gynecological case study as part of CSR" jointly with Ms Shashilata Yadav in CSR National conference at MES College, Goa on 23 March 2013.
8. Presented a Paper on 'Theorizing Clusters for Corporate Social Responsibility' in CSR National conference at MES College, Goa on 23 March 2013.
9. Presented a joint paper on 'CSR and Financial health" in CSR National conference at MES College, Goa on 23 March 2013.
10. **Edited and** Reviewed a paper on "Industrial Growth in India" sent by Manpower Planning Journal in Feb 2013. Later another paper by IAMR was reviewed

**Swagat K. Mishra**

1. Attended 9th Ruhr Graduate Summer School on 'Trade and Climate Policy: Using GAMS and MPSGE applications' at University of Duisburg-Essen, Germany from 3rd-9th August, 2013.
2. Presented a paper titled 'Economics of scope in Rice and Fish integrated cultivation in Goa' at International Seminar on 'Emerging challenges and prospects of Indian Economy' organized by Goa Economic Association together with Indian Economic Association held on 11<sup>th</sup> November, 2013.

**Mridula Goel**

**Business Ethics and Corporate Social Responsibility- Is there a dividing line?** Mridula Goel, Preeti E. Ramanathan at SIMSARC 2013, International conference organized by SIMS, Pune Dec.12-13,2013.

Chairperson for session on **Marketing Management** at SIMSARC 2013

**Shrabani Mukherjee**

Does Institutional Rural Credit Cause Economic Growth in India? - A State Wise Scrutiny", 50th Annual Golden Jubilee Conference of the Indian Econometric Society (TIES), by Indira Gandhi Institute of Development Research (IGIDR), Mumbai during December 22-24, 2013.

**A. K. Mishra**

1. **Agricultural Production and Sources of Agricultural Productivity in India- A Spatial Analysis** (with Avinash Mittal, Swapnil Prashant Joshi and Bhargav Vishwanath) at the 50th Annual Golden Jubilee Conference of the Indian Econometric Society (TIES) organized by Indira Gandhi Institute of Development Research (IGIDR), Mumbai during December 22-24, 2013.
2. **Financial Inclusion in India: Some Normatively Relevant Aspects of Inter-State Disparities** (with Shyama Prasad Mohanty and Swagat Kishore Mishra) at the International Seminar on "Emerging Challenges and Prospects of Indian Economy", organized by Goa Economic Association in association with Indian Economic Association & Department of Economics, Goa University during November 11-12, 2013.
3. A short presentation on **Financial Inclusion and Human Development across States in India** at the Silver Jubilee Conference on Human Development organised by Indira Gandhi Institute of Development Research, Mumbai during September 26-28, 2013.

**Debdulal Thakur**

1. Expenditure for School Education in West Bengal: Examining Trends & Priorities', paper selected for presentation at the CESI Annual International Conference, 2013 hosted by the Department of Economics, University of Calcutta at Indian Statistical Institute- Kolkata, December 28-30, 2013.
2. NGOs Shaping State Policies: a brief note on the Indian scenario' co-authored with Abhijith Ashok & Shrabani Mukherjee, selected for presentation At National Seminar- Cum- Panel Discussion On "Rules Of Government: Role Of Corporate", Saturday, the 16th March 2013. Organized by Gitarattan International Business School, Delhi

**D. BOOKS PUBLISHED / EDITED DURING THE YEAR:****Shrabani Mukherjee**

Fiscal Stress & Education Expenditure: A Tale of Two Indian States'- Co-authored with Debdulal Thakur, Lambert Academic Publishers, Germany, ISSN-978-3-659-42704-6.

**Debdulal Thakur**

Fiscal Stress & Education Expenditure: A Tale of Two Indian States'- Co-authored with Shrabani Mukherjee, Lambert Academic Publishers, Germany, ISSN-978-3-659-42704-6

**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED:****Debasis Patnaik**

Resource Person for Japanese Students (Study Tour to India) in Goa University on Nov 7, 2013; Took them to Zuari Industries for Industry visit arranged by Mr. Nitin Kantak, Vice President, Zuari Industries and his team of Officials on Dec22, 2013.

**F. INVITED TALKS GIVEN BY BITS FACULTY:****Debasis Patnaik**

1. Talk on 'Econometric Analysis of Foreign Direct Investment in India' in RBVRR College in association with Andhra Pradesh Chamber of Commerce and Industry, Hyderabad on March 25 2013
2. Talk on Corporate Social Responsibility and Mental Health and Management Information System in MES College Conference on March 21, 2013
3. National Budget 2013-14-Analysis; in Department of Economics, Goa University Invited talks arranged in the department by Debasis Patnaik on March 6. 201
4. Disruptive Entrepreneurship- talk on Goa management Day on February 20, 2013.
5. Technology and Economics- Administrative Staff College- Goa University on April 6. 2013
6. Resource Person for Workshop on '**Indian Economy**' for Japanese Students in scholar Exchange Programme organized by Deptt of Economics and Sociology, Goa University.

**Mridula Goel**

Invited talk to Goan Diaspora on "**Entrepreneurial Leadership**", November 27, 2013 at BITS, Pilani K.K. Birla Goa Campus

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT:****Debasis Patnaik**

Prof. Babu Aiholi, Department of Economics, Goa University spoke on '**Technical Analysis**' on 14 Nov 2013.

**A. K. Mishra**

Industrial Clusters in India: Context and Policy Perspectives-An invited talk delivered by Prof. Keshab Das (of GIDR, Ahmedabad), on 29<sup>th</sup> October, 2013.

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS:****Srivastava A. Mathur**

Completed PhD degree on 28<sup>th</sup> November 2013.

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION:****Debdulal Thakur**

1. Successfully completed the 'Intensive Teaching Learning Workshop' for young faculties conducted by BITS-Pilani, K. K. Birla Goa Campus.
2. Officially mentored two students during the last semester (July to December 2013) to help them perform better in academics and overall performance.

**J. SIGNIFICANT NEW EQUIPMENTS / EXPERIMENTAL FACILITY ADDED DURING THE YEAR:****K. DEPARTMENTAL ASSOCIATION / CLUB ACTIVITIES:****Swagat K. Mishra**

1. Faculty Coordinator for the Visiting Advisory Committee comprising of two note worthy members Dr. Nachane and Dr. Somanathan for Department of Economics, BITS Pilani, K.K.Birla Goa Campus
2. Faculty Instructor for WILP coursework on Project Appraisal

**B2.11.6 Department: EEE and E&I****Department: Electrical, Electronics and Instrumentation Engineering**

Number of faculty members (as on 31 December 2013): 25

<b>Senior Professors, Professors</b>	02
<b>Associate Professors</b>	01
<b>Assistant Professors</b>	7
<b>Lecturers</b>	14
<b>Adjunct Faculty</b>	1

**Head of the Department:** Prof M K Deshmukh**Contact details:** mkd@goa.bits-pilani.ac.in**Number of PhD Scholars:** 23 (14 Lecturers +9\* Full time students )

\* 2 students have joined recently

**Ph.D. Thesis Submitted during the year:** 01**A. SPONSORED RESEARCH ACTIVITIES:**

Total number of Sponsored Projects in the department: 04. Details are given below.

**(i) Ongoing projects:**

1. Wireless Sensor Networks for Inaccessible Terrains, UGC major project
2. Design and Development of condition based monitoring of Pipelines using Wireless sensor Networks, GAIL
3. Hardware Implementation of time frequency distribution of Mirnov oscillations in Tokamak using the Hilbert-Huang Transform, BRFST
4. Investigation of Schokkty contacts to SiC using I-V and C-V techniques, UGC Major project

**(ii) Projects sanctioned during the year**

NIL

**(iii) Projects completed this year–None**

The department has received the DST-FIST grant of Rs. 40 Lakhs for VLSI softwares

**B. PUBLICATIONS:**

The faculty of the department published 11 papers in international/national refereed journals during the year.

1. Kartikeya Bhardwaj, Pravin S. Mane, "ACMA:Accuracy-Configurable Multiplier Architecture for Error-Resilient System-on-Chip", IEEE international conference on Reconfigurable Communicationcentric Sysetm-on-Chip 2013(ReCoSoc 2013),Kartikeya Bhardwaj, Pravin S. Mane (ISBN : 978-1-4673-6180-4)
2. Pravin S. Mane, Namita Paul, Nikhilesh Behera, Madankumar Sampath and C. K. Ramesha, "Hybrid CMOS – Memristor Based Configurable Logic Block Design", 2014 International Conference on Computer Communication and Informatics (ICCCI -2014), Jan. 03 – 05, 2014, Coimbatore, INDIA (Accepted)
3. Deshmukh, M. K., Bala Krishna Moorthy, C., "A New Approach for Prediction of Growth of Onshore Wind Power Potential", Intl. Jnl. of Electrical and Electronics Engineering Research (IJEEER), Vol. 3, Issue 1, March, 2013, 107-122.



4. Deshmukh, M.K., Bala Krishna Moorthy C., "Review on Stability Analysis of Grid Connected Wind power Generating System", Intl Jnl of Electrical and Electronics Engineering Research (IJEEERD), Vol 3., No. 1, Jan-Mar, 2013, pp. 01-33.
5. Atul Kumar, Ashwath Rao, Manish Goswami, B R Singh, "Electrical characterization of MFeOS gate stacks for ferroelectric FETs" Materials Science in Semiconductor Processing (MSSP) Volume 16, Issue 6, December 2013, Pages 1603–1607
6. Prince A.A., Chithra and Pallavi S. (2013) 'RF MEMS based Biosensor for Pathogenic Bacteria Detection, Journal of BioNanoScience, vol. 3 (3), pp. 321-328.
7. Prince A.A., Mangal Giri G. M. and Femi R. (2013) 'Electronic Circuit Design and Analysis of MEMS Current Sensor', Proc. Of International Conference on Emerging Technologies - Micro to Nano 2013, p.p. 187-188, February 23-24 2013,Goa, India.
8. Prince A.A., Chithra and Pallavi S. (2013) 'RF MEMS based Biosensor for Pathogenic Bacteria Detection', Proc. Of International Conference on Emerging Technologies - Micro to Nano 2013, p.p. 173-174, February 23-24 2013,Goa, India.
9. Lizy Kanungo, Gautam Bacher Souvik Pal and Sunil Bhand\*Ultrasensitive micro-biosensors for analysis of aflatoxins". Proceedings of International Conference "Emerging Technologies: Micro to Nano" organized jointly by CSIR CEERI Pilani and BITS Pilani during Feb. 23 & 24, 2013 at BITS Pilani-KK Birla Goa Campus.
10. Shailendra kumar dhakad, "A high speed and Efficient FPGA based squaring circuit" IJAREEIE journal , Nov 2013.
11. Shailendra Kumar dhakad, Shubham Mishra , "An FPGA based fuzzy logic approach to Huffman data compression", SCEECS 2014, March 1-2, 2014 , MANIT Bhopal (accepted)

**C. CONFERENCES ATTENDED/PAPERS PRESENTED:**

1. Mr Gautham Bacher Attended Interaction meeting on "x-ray lithography and microfabrication" December 5-6, 2013. Raja Ramanna Centre for Advanced Technology (RRCAT) ,Indore.
2. Ms Meetha V Shenoy and Mrs Chhayadevi M Bhamare attended Intel India Academic Forum 18-19 Sept 2013 Goa.
3. Mr Shailendra Kumar dhakad attended International Comsol conference held at Bangalore 17 oct – 19 oct 2013.
4. Mr Shailendra Kumar dhakad attended 17th International Workshop on "The Physics of Semiconductor Devices", December 10-13, 2013, organized at Amity University, Noida, India in collaboration with Society for Semiconductor Devices.
5. Mr Shailendra Kumar dhakad attended International Conference on Emerging Technologies - Micro to Nano 2013 held at BITS Pilani, KK Birla Goa campus, Goa, India during 23-24 February 2013.
6. Prof. M. K. Deshmukh, attended 15th NTC on "Wind Energy Technologies" at Centre for Wind Energy, Chennai, Nov. 27-29, 2013.
7. Dr Ramesha CK Attended 6-days CEP Certification course on "Semiconductor Technology and Manufacturing" at IIT Bombay, Dec 10-15, 2013.

**D. BOOKS PUBLISHED/EDITED DURING THE YEAR: NIL**

**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

NIL

**F. INVITED TALKS GIVEN BY BITS FACULTY:**

1. Mr Gautham Bacher Delivered a lecture on "Programmable Logic Controller" in AICTE sponsored National Winter School on Industrial Applications of Mechatronics, December 16-29, 2013, organised by Agnel polytechnic, Verna, Goa .
2. Dr Sreeraj E S Delivered a lecture for the faculty members of Government Engineering College Thrissur, Kerala on 9/10/ 2013 as part of the Faculty Development Programme, Applications
3. Dr K R Anupama Delivered a lecture on "Wireless Sensor Networks " in AICTE sponsored National Winter School on Industrial Applications of Mechatronics, December 16-9, 2013, organised by Agnel polytechnic, Verna, Goa.

**G. INVITED TALKS ARRANGED IN THE DEPARTMENT: NIL****H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS:**

1. BHAND SUNIL, CHANDRA SUDHIR, PANDYA HARDIK, BACHER GAUTAM & KANUNGO LIZY. Provisional Indian Patent Application No. 1203/MUM/2013 Date of filing: 28 March 2013.
2. Prof. M. K. Deshmukh, felicitated as a "Distinguished Teacher" in a public function organized by Lions Club of Chicalim, Vasco Da Gama, October, 10<sup>th</sup>, 2013.

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION: NIL****J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

Following new and modern equipments were added in the year 2012 under various laboratories

1. Mixed Domain Oscilloscope-Tektronics MDO 4014 -3
2. Tektronix signalvu analyser software
3. Upgraded LABVIEW software to LABVIEW 2012 , Added new sensor
4. PLC added to Instrumentation Lab
5. Mini process Control
6. Universal DAC card from NI
7. Keithley Make System Source meter Dual Channel-40V Model NO-2602B

**K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES:**

- (i) EEE and E & I Association -NIL

**B2.11.7 Department: Humanities and Social Sciences**

Number of faculty members (as on 31 December 2013): 17

<b>Senior Professors, Professors</b>	1
<b>Associate Professors</b>	0
<b>Assistant Professors</b>	9
<b>Lecturers</b>	3
<b>Visiting Faculty</b>	4

**Head of the Department: Meenakshi Raman**

**Contact details(email):** mraman@goa.bits-pilani.ac.in

**Number of PhD Scholars:** 7 (including 5 lecturers)

**Ph.D. Thesis Submitted during the year:** NIL

**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department: 02 Details are given below.

**(i) Ongoing projects: 2**

ICSSR ( 6.58 Lacs)

Topic: Exploring Spiritual Quotient and Analyzing its Impact on the Research Performance of University Teachers

Principal Investigator: Dr. Shalini Upadhyay

Firebird Foundation for Anthropological Studies, USA : 5 Lakhs

Topic : Fieldwork for creating a dictionary of Mudugar language (Sanctioned in 2012)

Principal Investigator : Rayson K. Alex.

**(ii) Projects sanctioned during the year:****UGC Major Project : 6.5 Lakhs**

Topic : Cross Cultural Communication :An Empirical Analysis of Cross Cultural Communication Variables in Indian Industries and Academia. (Sanctioned 2013)

Principal Investigator : Dr. Basavadatta Mitra

**Research Initiation Grant : BITS Pilani (1.85Lacs)**

Topic : Frontier as Tourist Construct in the Postmodern Novels of Ishmael Reed, E.L. Doctorow, Cormac McCarthy, and Thomas Pynchon." ( 2013)

Principal Investigator : Dr. Nilak Datta

**(iii) Projects completed this year: NIL****B. PUBLICATIONS:****International Journals**

**Cherualath Reena** . Is the Right of Children to Free and Compulsory Education Act really beneficial to the poorer children in India? An analysis with special reference to the admission of poorer children in Public unaided schools, Education 3-13: International Journal of Primary, Elementary and Early Years Education, Routledge Publication, UK, September 2013 (Accepted) (Author- Reena Cherualath) DOI:10.1080/03004279.2013.847970

**Dixit Manisha and Meenakshi Raman.** "Enhancing the Impact of TV Reality Shows by Understanding the Viewers Interest." *International Journal of Communication* (A Bahri

Publication) Vol. 1-2, September 2013. Print.

**Gupta, M.** 2013. Health Deficits and (the) Absence of Popular Mobilization in Brazil. *Brasiliana: Journal of Brazilian Studies* 2 (1): 169-201.

Pushkar, "Nation or State? Where should we look to Measure Democracy's effects on Health?" *Forum for Development Studies* 40 (2): 2013, 217-33. Print.

**Raman Meenakshi.** Teaching Expressions of Cause, Effect, Purpose and Function in English for Students of Science and Technology , *International Journal of English and Literature* Vol. 4(3), pp. 69-73, May, 2013, DOI: 10.5897/IJEL11.124, ISSN 1996-0816 © 2013 Academic Journals, <http://www.academicjournals.org/IJEL> Impact Factor : 3.8526 ISSN 2249-6912 ( Print) ISSN 2249-8028 (online)

### C. BOOKS PUBLISHED/EDITED DURING THE YEAR: NIL

#### Chapters in Books

**Alex, Rayson K.** "A Critical Call for the Second Wave in Indian Ecocriticism." Ed. Suresh Frederick. *Contemporary Contemplations of Ecoliterature*. New Delhi: Authorpress, 2012. (ISBN: 978-81-7273-642-2)

**Alex, Rayson K.** "Ecological Representation in Video-documentaries on Tribal Communities in South India." *Problematics on Ethnicity, Identity & Literature*. Eds. Barua, Anooradha Chakrabarty & Nath, Hemanta Kr. Assam: The Sibsagar College, 2012. (98-104). (ISBN 81-924140-5-1)

**Gyan Prakash,** "Eastern and Western Philosophy", in *Felicitations Volume in Honour of Prof. Sohan Raj Tater*, Co-operation Publications, 2013, Pp. 157-160.

**Pragyan Paramita Barik,** "Commitment of Corporations Towards Corporate Social Responsibility Agenda: A Case Study of a Public Sector Company in Orissa" in the book 'Corporate Social Responsibility' by Dr.(Mrs.) Rekha Gaonkar and Shri Vishal Rama Chari, APH Publishing Corporation, New Delhi (2014).

### D. CONFERENCES ATTENDED/PAPERS PRESENTED:

1. **Basavadatta Mitra** Presented a paper entitled :*The Political Shakespeare* ,at the VI International Seminar on 'Republic in Shakespeare',16-18 October 2013,organised by the Department of English , Jammu University in collaboration with Shakespeare Association of India.
2. **Kafle Hemraj and Meenakshi Raman.** 2013. *Rhetoric for Tertiary Level Presenters: Redefining Canons and Modes of Appeal*. Lata Pushp, Devika and G.S.Chauhan,eds., Intergrating Web 2.0 Technology and Culture in ELT,International Conference Proceedings Second vol., 3<sup>rd</sup> Rajasthan ELT@I International Conference (8-9 October 2012), BITS, Pilani. New Delhi: Jain Brothers, 2013. Pp 53-64
3. **Pradhan RP,** "Terror Management & Political Economy of India's Red Corridor", Society for Terrorism Research 7th Annual Conference, University of East London, UK, June 27-28th, 2013.
4. **Pragyan Paramita Barik.** "Commitment of Corporations Towards Corporate Social Responsibility Agenda: A Case Study of a Public Sector Company in Orissa." National Seminar on Corporate Social Responsibility and Sustainability organized by The Department of Economics, MES College of Arts & Commerce, Goa, March 2013.
5. **Pragyan Paramita Barik** Presented Paper (Empowerment of Rural Women through CSR Initiatives: A Case Study of Ultratech Cement, Khor, India) at International Symposium on Corporate Social Responsibility (IS-CSR): Sustainability, Governance and Effective Outcomes, organised by the Amrita School of Business, Amrita Vishwas Vidyapeetham and Centre for Sustainable and Responsible Organisations (CSaRO), Deakin University, Australia, Bengaluru, 12th and 13th December, 2013.

6. **Pragyan Paramita Barik** . National Conference on Corporate Social Responsibility: Emerging Issues, Challenges and Strategies, organised by the Institute for Integrated Rural Development, Shimla in New Delhi. 27th November, 2013.
7. **Raman Meenakshi** and Sangeeta Sharma. Communication for Engineers. South Africa : OUP. 2013. ( adaptation of Technical Communication—with four authors from South Africa: Gary Collins, Roashaine Pather, Thobs Luthuli, Jenni Middleton Horn)—IN PRINT

#### Conferences Abroad (3)

8. **Gyan Prakash** . *The Nature of Thinking Thoughts*, in 1<sup>st</sup> International Avant-Conference 2013 on Thinking with Hands, Eyes and Things organized by the Centre For Philosophical Research, Nicolaus Copernicus University (Torun, Poland), and The Philosophy Department at Villanova University (USA) at Torun, Poland, 8<sup>th</sup> November-10<sup>th</sup> November 2013
9. **Pradhan RP**, "Terror Management & Political Economy of India's Red Corridor", Society for Terrorism Research 7th Annual Conference, University of East London, UK, June 27-28th, 2013.
10. **Raman Meenakshi**. Enterprise Resource Planning (ERP) in Indian Universities : Opportunities and Challenges, ICTBM-2013 ( International Conference on Technology in Business Management) organized by INFOMS and AUE held in American University in Emirates, Dubai 18-20 March 2013.

#### E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED : 3

The department organized two workshops and one Advisory Committee Meeting:

Two –day workshop on "Negotiations and Negotiating" 8-9 March 2013

Conducted by D J Sarkar, Project PSCM Manager at BP, UK ,on 8th March,the workshop witnessed the participation of about 25 managers from 11 organizations in Goa: On 9<sup>th</sup> March, 46 students from BITS Pilani Goa campus, Goa University and GITIC ( Goa IT Innovation Centre at Goa Chamber of Commerce and Industries) participated in various activities based on negotiation case studies and enjoyed learning the process of negotiation.

National Workshop on Innovative Pedagogies for Enhancing the Employability Skills of Students 4-6 September 2013 ; 30 participants and training officers from universities across India.

Visiting Advisory Committee Meet for the Department of Languages and Humanities of all four campuses through telepresence. ( 19-20 September 2013). Prof.Pramod Pandey , JNU and Prof.Bijoy H Boruah, IIT Delhi were the experts.

#### F. INVITED TALKS GIVEN BY BITS FACULTY:

1. **Basavadatta Mitra** conducted a workshop :*Multi-word verbs: Learner problems*, at 3rd National Conference on ELT:Making the Teaching and Learner of Grammar a Pleasure:Challenges and Solutions organised by English Language Teaching Institute of Symbiosis(ELTIS),Pune in collaboration with English Language Teachers Association of India(ELTAI),8-9 February 2013.
2. **Basavadatta Mitra** co-ordinated a Workshop on Negotiations and Negotiating :*Do we always get what we want?:* 8-9 March,2013 organised by the Department of Humanities and Management .
3. **Basavadatta Mitra** conducted a workshop on 29 -30 April,2013 :*Building Employability Skills amongst students of Technology*: as part of a series of Workshops under the Centre of Excellence for Development of Employ-ability Skills among students of Technology for the Global Workplace set up as part of the Technical Education Quality Improvement Programme(TEQIP), Ministry of Education,Government of West Bengal.
4. **Basavadatta Mitra** was appointed as Consultant by Ministry of Education,Government of West Bengal for Technical Education Quality Improvement Programme(TEQIP), an initiative of the World Bank and Ministry of Human Resource Development, Government of India.

5. **Basavadatta Mitra** conducted a workshop ,5-8 August,2013 :*Building Employability Skills amongst students of Technology*,organised by the Bankura Unnayani Institute of Engineering,Bankura,West Bengal, as part of a series of Workshops under the Centre of Excellence for Development of Employ-ability Skills among students of Technology for the Global Workplace set up as part of the Technical Education Quality Improvement Programme(TEQIP), Ministry of Education,Government of West Bengal.
6. **Basavadatta Mitra** conducted one session on Job Interviews as Resource person and Co-ordinator ,Hospitality Committee for the National Workshop on Innovative Pedagogies for Enhancing the Employability Skills of Students , 4th to 6th September,2013, organised by the Department of Humanities and Social Sciences,BITS Pilani KK Birla Goa Campus,Goa.
7. **Meenakshi Raman** conducted a one day workshop on Professional Communication at SHIATS ( Sam Higginbottom Institute of Agriculture, technology and Sciences) Allahabad on 29 January 2013.
8. **Meenakshi Raman** delivered a talk on “Life and Education at BITS Pilani” in Nagpur on 24.3.2013 organized by Integra Eduventure ( attended by over 400 people consisting of 10<sup>th</sup> and 12<sup>th</sup> students and their parents)
9. **Meenakshi Raman** was a resource person for the short term course on Literature Survey and Academic Writing (20-30 August 2013) by Academic Staff College, Goa University for faculty members, research scholars and librarians from various universities in India. Conducted a session on Academic Writing on 30 August 2013
10. **Meenakshi Raman** was a resource person for a Short term Course on Academic Writing organized by UGC-Academic Staff College, Goa University23 Sept-21 Oct 2013. Conducted two sessions on 9<sup>th</sup> October 2013 Verbal and Non verbal Communication. 52 participants from various colleges.
11. **Meenakshi Raman** delivered a Special Lecture at TSICON 2013, an International Conference on Biology of Natural Toxins , BITS Pilani, Goa Campus during 19 - 21 December 2013 (talk on 21<sup>st</sup> Dec); Topic : Five Cs of Writing Effective Scientific Papers.
12. **Shalini Upadhyay and Nilak Datta** conducted a session on Small Talk at the workshop on Employment Skills organized by the department during 4-6 September 2013.
13. **R P Pradhan.** Invited Panel Speaker: “India’s Maritime Economics: Growth Options & Challenges” National Maritime Day Celebration, Mercantile Maritime Department, Goa, 2<sup>nd</sup> April, 2013.
14. **Geetha KA and Rayson Alex conducted a session on Verbal and Nonverbal communication** at the workshop on Employment Skills organized by the department during 4-6 September 2013
15. **Invited Talks Abroad**
16. **Gyan Prakash** “*The Enigma of Mind and Body Relation: A Buddhist Approach to Rylean Problem*” University of Warsaw, Poland, November 2013.
17. **Gyan Prakash.** “*The Early Buddhist Thoughts and Metaphysics*”, Institute of Philosophy and Sociology, Polish Academy of Sciences, Warsaw, Poland, November 2013.

#### **G. INVITED TALKS ARRANGED IN THE DEPARTMENT:**

Alien in your own land : crisis of identity, development and democracy. Talk by Sudeep Chakravarthi, eminent author and columnist. (30 October 2013)

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS:**

1. **Gyan Prakash** was appointed as a peer reviewer for the journal *Philosophy: East and West*
2. **Reena Cheruvalath** Reviewed paper "Guiding Pre-service Teachers to Lead Student Organizations in Education: The Faculty Advisor's Perspective" for *The International Journal of Teacher Educator*, Routledge Publication, September 2013
3. **Meenakshi Raman** : Winner of the Research paper Competition organized by ELT weekly. ( May 2013)
4. **Meenakshi Raman** : Guest Editor for *International Journal of Communication*, Volume 24, No.1, Jan-June 2014 ( Team Communication) New Delhi : Bahri Publications.
5. **Meenakshi Raman** was the Chief Guest for "I Care" Seminar organized by Mount Litera Zee School, Goa on 17 Feb. 2013 and for the Annual Day Function of Airway Public School, Dabolim, Goa on 23 Feb. 2013; Little Flower KidZee Funfare event on 22 Dec. 2013.
6. **Meenakshi Raman** is appointed as the Member of Senate, NIT Goa and reviewed the Syllabus for NIT Goa (I year BTech. course Professional Communication) (August 2013)
7. **Meenakshi Raman** reviewed 4 papers for *AIMS International Journal of Management* : (i) Paper A Study of the Relationship between Emotional Intelligence and Organizational Role Stress amongst Private Sector Bank Employees (19.1.2013) (ii) Workforce Analytics Approach: An emerging trend of workforce Management (March 2013) (iii) Integration Activities and Competitiveness of a Company : Theory and Practice in Industrial Enterprises in the Czech Republic (iv) Association in Emerging Asian Stock Markets: A Test of Co-Integration
8. **Meenakshi Raman** reviewed 2 papers for *NCA-Association of Business Communication, USA*, 20 April 2013
  - (i) An Analysis of Retirement Financial Service Providers' Approach to Using Websites to Augment Consumer Financial Acumen
  - (ii) Why do employees identify with their organizations? Investigating the effects of organizational communication adequacy, and participation in decision making, on job satisfaction and organizational identification
9. **Pushkar** : **Consulted as expert on higher education in India for the Economist Intelligence Unit (EIU) for a special report on Higher Education in South Asia**
10. **Pushkar** : Columnist for *Asian Scientist*: <http://www.asianscientist.com/author/pushkar/> ; *EDU*: <http://www.edu-leaders.com/resources/magazine>; *Worldwise* section of *Chronicle of Higher Education*: <http://chronicle.com/blogs/worldwise/>
11. **Pushkar** :Assistant Book Review Editor, *Latin American Research Review*
12. **Pushkar** :Academic Referee for Indian Council of World Affairs (New Delhi) working papers; *Journal of Development Studies*&*Millennium: Journal of International Studies*

**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION: NIL****J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR: NIL****K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES:**

The department started **Departmental Seminars** on 2<sup>nd</sup> November 2013; Dr.Pushkar spoke on Democracy, Civil Society and Health in India ; Mr.Amitendu Bhattacharya spoke on 30 November 2013 on Universities at the Crossroads and the Humanities at a Dead-End: What is the Way Forward?

**B2.11.8 Department: Mathematics**

Number of faculty members (as on 31 December 2012): 15

<b>Senior Professors, Professors</b>	00
<b>Associate Professors</b>	00
<b>Assistant Professors</b>	11
<b>Lecturers</b>	03
<b>Visiting Faculty</b>	01

**Head of the Department:** Dr Prasanna Kumar N

**Number of PhD Scholars:** 03

**Ph.D. Thesis Submitted during the year:** nil

**A. SPONSORED RESEARCH ACTIVITIES:****(i) Ongoing projects:**

1. Project Title: Mathematical modeling and simulation of crack in smart materials  
Principal Investigator: Dr. Amit Setia  
Sponsor: BITS, Pilani under Research Initiation Grant, Mission budget  
Amount: Rs. 2 Lakhs
2. Project Title: Portfolio Optimization and its Implementation in Financial Markets  
Principal Investigator: Dr Mayank Goel  
Funding Agency: Research Initiation Grant, Mission Budget (2 Lakh)
3. Project Title: Studies on neighborhood magic graphs  
Principal Investigator: Dr. T. Singh  
Co-Principal Investigator: Dr Anil Kumar  
Sponsor: Department of Science & Technology, Govt. of India.  
Amount: Rs. 12.69360 Lakhs

**(ii) Projects sanctioned during the year:**

- **Tarkeshwar Singh**, *Studies on Neighborhood Magic Graphs*. (Reference No. SR/S4/MS: 734/11). **TOTAL AMOUNT: Rs.12, 69,360/- Funding Agency: Department of Science and Technology Govt. of India.**
- **P. Dhanumjaya**, Coordinator for DST-FIST Level -1 sanctioned project. The total amount is Rs. 37.5 Lakhs, /- **Funding Agency: Department of Science and Technology Govt. of India.**
- **G. C. Samanta**, UGC START-UP grant recommended on 24/12/2013  
Title: Multidimensional dark energy cosmological models in modified theories of gravitation. Amount: 6 lakhs.

**D. BOOKS PUBLISHED/EDITED DURING THE YEAR:**

NIL



**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED:**

- Research promotion workshop on "Introduction to Graph and Geometric Algorithms" jointly organized by the Department of Mathematics, BITS Pilani KK Birla Goa Campus, Goa and School of Technology and Computer Science, Mumbai during January 17-19, 2013 held at BITS Pilani – K K Birla Goa campus, Goa.

Coordinators: Dr Tarkeshwar Singh and Dr Anil Kumar

- Advanced workshop on "Mathematical Foundation of Advanced Finite Element Methods" Jointly organized with NMI Bangalore and NPDE-TCA, IIT Bombay during December 26, 2013 to January 3, 2014 held at BITS Pilani – KK Birla Goa campus, Goa.

Coordinators: Dr Dhanumjaya P and Dr Anil Kumar

- Introductory Workshop on "MATHEMATICA" at BITS, Pilani-K K Birla Goa Campus during 24-25 July 2013.

Coordinator: Dr Dhanumjaya P

**F. INVITED TALKS GIVEN BY BITS FACULTY: NIL****G. INVITED TALKS ARRANGED IN THE DEPARTMENT:**

- December 6, 2013, Dr. Goutam Paul, Assistant Professor, R.C. Bose Centre for Cryptology and Security, Indian Statistical Institute, Kolkata delivered a talk on "No Cloning Theorem and Quantum Key Distribution".
- October 11, 2013, Prof. A. S. Vasudeva Murthy, TIFR Centre for Applicable Mathematics, Bangalore, delivered talks on "Searching and Sorting Million Needles in Zillion Haystacks" and "On the string equation of Narasimha".
- October 10, 2013. Prof. A. S. Vasudeva Murthy, TIFR Centre for Applicable Mathematics, Bangalore, delivered a talk on "Far field boundary conditions and their numerical approximation".
- October 3, 2013. Prof. Mridul Nandi, Applied Statistics Unit, ISI Kolkata delivered a lecture on "Analysis of Modes of Hash Functions".
- September 14, 2013. Prof. Sudhir Ghorpade, Professor & Head, Department of Mathematics, Indian Institute of Technology Bombay delivered a talk on "Matrices and Linear Recurrences over Finite Fields".
- September 14, 2013. Prof. M. K. Kadalbajoo, Professor, Department of Mathematics, Indian Institute of Technology Kanpur delivered a talk on "Computational Mathematics-Some Challenges".
- April 16, 2013. Prof. D. S. Nagaraj, Department of Mathematics, Institute of Mathematical Sciences, Chennai delivered lectures on "Algebraic varieties-A Conceptual Approach".
- April 17, 2013. Prof. D. S. Nagaraj, Department of Mathematics, Institute of Mathematical Sciences, Chennai delivered lectures on "Groups and Symmetries of Structures".

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS : NIL****I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION:**

- (1) **Prabal Paul**, Visited Department of Mathematics, Indian Institute of Science Education and Research, Pune and delivered a talk (January,2013).
- (2) **Prabal Paul**, Visited Harish Chandra Research Institute, Allahabad (20th-25<sup>th</sup> May 2013).
- (3) **Prabal Paul**, Visited Applied Statistics Unit, Indian Statistical Institute, Kolkata for a month during `June-July 2013'.
- (4) **Tarkeshwar Singh**, visited to the Department of Mathematics, Indian Institute of Technology, Delhi, during October 25-31, 2013 for finalizing the research paper.
- (5) **Tarkeshwar Singh**, Evaluation of 3 Ph.D. Theses as an external examiner.

**J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

To enhance the computational facility within the department and institute, 40 licenses of MATHEMATICA installed in CC lab.

Faculty Coordinators: Dr Anil Kumar and Dr Dhanumjaya P

**K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES:**

- *Mathletes*- Student association of MSc Mathematics students organized various math events during annual QUARK-2013 technical fest.
- Weekly seminars were given by our faculty members.

**B2.11.09 Department: Mechanical Engineering**

Number of faculty members (as on 31 December 2013) : 18

<b>Senior Professors, Professors</b>	00
<b>Associate Professors</b>	02
<b>Assistant Professors</b>	08
<b>Lecturers</b>	08
<b>Visiting Faculty</b>	01

**Head of the Department:** Dr. Shibu Clement

**Contact details:** [shibu@goa.bits-pilani.ac.in](mailto:shibu@goa.bits-pilani.ac.in)

**Number of PhD Scholars:** 04

**Ph.D. Thesis Submitted during the year:** 05

**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department: 06. Details are given below.

**(i) Ongoing projects:**

1. Dr. P.M. Singru "NATIONAL MEMS DESIGN CENTER" from NPMASS, Rs. 30 lacs.
2. Dr. Sachin Waigaonkar "Experimental Investigations of Rotational Moulding Process Using Nano-Scale Fumed Silica Composites" from Department of Science and Technology (DST), Govt. of India, Rs. 16 lacs.
3. Dr. Sachin Waigaonkar "Rotational Moulding of LLDPE using Nano scale Fumed Silica Composites" from UGC, Rs. 6 lacs.
4. Mr. A.C.Kulkarni and Prof. D.M.Kulkarni "Experimental Investigation of Friction and Wear Mechanism for Hip Prosthesis Material using Multi-Station Tribometer" from DUCOM Instruments Bangalore, Rs. 15 lacs.
5. Mr. A.C.Kulkarni and Prof. D.M.Kulkarni "Experimental Wear Analysis of an Artificial Hip Implant Materials using Advanced Tribometer Customized for Bio- Tribological Studies" from Aditya Birla Sci & Technology Center (ABSTC), Mumbai, DUCOM Instruments Bangalore, Department of Sci & Technology (DST), Rs. 55.50 lacs.

**(ii) Projects sanctioned during the year: 1**

Dr. G Karthikeyan, received grant under DST for "Flow investigation through  $\mu$ ED-milled metallic micro channels". Amount Rs. 15 lacs

(iii) Projects completed this year: NIL

**B. PUBLICATIONS: 13**

S. No.	Authors	Title of the Publication	Journal	Vol	Pages
1	Rajaram Lakkaraju, Federico Toschi, and Detlef Lohse	Bubbling reduces intermittency in turbulent thermal convection	Journal of Fluid Mechanics (Cambridge University Press)	Accepted for publication on 7th January 2014	26
2	Kiran D. Mali, Pravin M. Singru "	An Analytical Model to Determine Fundamental Frequency of Free Vibration of Perforated Plate by Using Greatest Integer Functions to Express Non Homogeneity"	Advanced Materials Research	Vols. 622-623	600-604
3	Rajput A., Ghosh N.N. and Singru P.M	Preparation of flexible magnetic nanocomposites of 3 linear low-density polyethylene-polybenzoxazine-magnetic nanoparticles 4 and their mechanical and magnetic properties"	Journal of Journal of Nanoscience Letters	3:26	
4	Kiran D. Mali, Pravin M. Singru	An Analytical Model to Determine Fundamental Frequency of Rectangular Plate Having Rectangular Array of Circular Perforations	Journal of Vibro-Engineering	Vol 2	588-596
5	Kiran Mali and Pravin Singru	Determination of the fundamental frequency of perforated rectangular plates: concentrated negative mass approach for the perforation	Advances in Acoustics and Vibration	Volume 2013, Article ID 972409, 6 pages	
6	Kiran D. Mali, Pravin M. Singru	On The Use of Greatest Integer Function to Express Material Property Variation in Free Vibration Problem of Simply Supported Square Plates with Square Array of Circular Perforations	Procedia Materials Science-Elsevier Journal	Accepted for publication	
7	Trushar B. Gohil, Arun K. Saha, and K. Muralidhar	Direct numerical simulation of forced circular jets: Effect of varicose perturbation	International Journal of Heat and Fluid Flow	Vol. 44	524-541
8	Kiran C.P. and Shibu Clement	Surface quality investigation of turbine blade steels for turning process	Measurement	Vol. 46, No. 6	1875-1895
9	Kiran C.P., Shibu Clement and Agrawal V.P.	Mechatronic system reliability modeling and analysis	International Journal of Reliability and Safety	Vol. 7, No. 2	128-155

S. No.	Authors	Title of the Publication	Journal	Vol	Pages
10	PL. Ramkumar, D.M. Kulkarni and Sachin D. Waigonkar	Effect of Cycle Time on Mechanical Properties of LLDPE during rotational moulding process	Journal of Polymer Research	Accepted for publication	
11	PL. Ramkumar, D.M. Kulkarni and V.V.Chaudhari	Parametric and Mechanical Characterization of Linear Low Density Polyethylene (LLDPE) Using Rotational Moulding Technology	Sadhana - Academy Proceedings in Engineering Science	Accepted for publication	
12	Karthikeyan; Ramkumar; Dhamodaran	Block EDG: Issues and Applicability in Multiple Pass $\mu$ ED-Milling	Machining Science and Technology	Accepted for publication	
13	A.C.Kulkarni & D.M.Kulkarni	A comparative study for oval wear track using MATLAB Software and Eulerian mathematical model.	International Journal of Scientific & Industrial Research	Vol: 4	

### C. CONFERENCES ATTENDED/PAPERS PRESENTED: 16

S. No.	Presenter	Title of Paper	Conference Name	Location	Date
1	S. Habbu, P. Mulaye, Kiran D. Mali* , P. M. Singru	Free vibration of rectangular plate with bidirectional parabolic thickness variation	International conference on advances in Mechanical engineering	COEP, Pune, Maharashtra, India	May 29-31, 2013
2	Anish D. Shah, Nishant R. Chokhani, Rohit S. Lad, Kiran D. Mali* and Pravin M. Singru	Effect of thermal gradient on free vibration of rectangular plate with thickness varying exponentially in one direction.	The 5th Asia and Pacific Young Researchers and Graduates Symposium on, Current Challenges in Structural Engineering	Malaviya National Institute of Technology Jaipur, India	October 15-16, 2013
3	M. Sreedhar Babu, S. Clement and N.K.S.Rajan	Attribute Based Selection of Green Fuel for An IC Engine	Proceedings of International Conference on Advances in Mechanical Engineering	COEP, Pune, Maharashtra, India	May 29-31, 2013
4	Kiran C.P. and Shibu Clement	Turbine Blade Material Selection for CNC Turning Using MADM Approach	Proceedings of International Conference on Advances in Mechanical Engineering	COEP, Pune, Maharashtra, India	May 29-31, 2013
5	G. Karthikeyan, Shibu Clement and J. Ramkumar	Globules and molten metal behaviors in $\mu$ ED-milling process	A National Conference on Manufacturing	Department of Mechanical Engineering, IIT Guwahati, India	October 12-13, 2013
6	Kumar, A., Clement, S. And Agrawal, V. P.	Concurrent Design of Electroplating Effluent Treatment System Using MADM Approach	International Conference on Industrial Engineering (ICIE-2013)	Sardar Vallabhbai National Institute of Technology (SV NIT), Surat, Gujrat, India	November 20-22, 2013

S. No.	Presenter	Title of Paper	Conference Name	Location	Date
7	Chaudhari V. V., Kulkarni D. M.	Effect of Strain Rate on Fracture Toughness of Extra Deep Drawn Steel Sheets: Experimental and Finite Element Approach	International Conference on Advances in Mechanical Engineering (ICAME)	College of Engineering Pune, Maharashtra, India	May 29-31, 2013
8	M. Sreedhar Babu, S. Clement and N.K.S.Rajan	Attribute Based Selection of Green Fuel for an IC Engines	International Conference on Advances in Mechanical Engineering (ICAME)	College of Engineering Pune, Maharashtra, India	May 29-31, 2013
9	Utkarsh Gupta, Sukrant Tulsii, G. Karthikeyan	$\mu$ ED-milling process: Simulation of linear $\mu$ -channels	International Conference on PRECISION, MESO, MICRO, AND NANO ENGINEERING (COPEN-8: 2013)	Department of Mechanical Engineering, NIT Calicut, India	Dec 13 - 15, 2013
10	Girish Chandran V, Sachin Waigaonkar, Vishal Ahuja	Rheological Characteristics of Linear Low Density Polyethylene – Fumed Silica Nanocomposites	International conference on Advanced Polymeric Materials 2013, (ICAPM-2013)	International and Interuniversity Centre for Nanoscience and Nanotechnology Mahatma Gandhi University, Kottayam, Kerala, India	Oct 11-13, 2013
11	D K Mohanty & P M Singru	Effect of Fouling on the Heat Transfer Performances of a Shell and Tube Heat Exchanger	International Conference on Energy Resources and Technologies for Sustainable Development (ICERTSD 2013)	Bengal Engineering and Science University, Kolkata	Feb 7 -9, 2013
12	D K Mohanty & P M Singru	Fouling Analysis of a Shell and Tube Heat Exchanger using C-factor Method,	International Conference on Frontiers in Chemical Engineering (ICFCE 2013)	NIT Rourkela, Odisha	
13	PL.Ramkumar, D M Kulkarni, Sachin D Waigoankar	Effect of Speed Ratio and Cycle Time on Thickness of LLDPE Products in Rotational Moulding Process	International Conference on Advanced Polymeric Materials	Mahatma Gandhi University, Kottayam	Oct 11-13, 2013
14	D M Kulkarni & Vikas Chaudhari	An Elastic Plastic 3-D Finite Element Analysis of Crack Tip Stress Field in General Yielding Fracture Mechanics.	International Conference on Computer Aided Engineering	Indian Institute of Technology (IIT), Madras.	Dec 19-21, 2013

S. No.	Presenter	Title of Paper	Conference Name	Location	Date
15	Rakesh G. Mote and Zhou Wei	Polarization Independent High-index-contrast Grating Reflectors: Role of Design Parameters and Fabrication Errors	International Conference on Materials for Advanced Technologies (ICMAT 2013)	MRS Singapore	30 June - 5 July, 2013
16	Rakesh G. Mote, Zhou Wei and S.F. Yu	Application of Focused Ion Beam (FIB) to micro optics/photonics research	A National Conference on Manufacturing: Vision for Future (MVF 2013)	Indian Institute of Technology (IIT), Guwahati	October 12-13, 2013

#### D. BOOKS PUBLISHED/EDITED DURING THE YEAR: 8

- Dr. Ranjit S. Patil:** *Reviewer of Thermal Engineering Book will be Published by Mc Graw Hill Publication.*
- Dr. Ranjit S Patil:** *reviewer for the research paper in Experimtnal Thermal Fluid Science Journal Elsevier Publication*
- Mr. Kiran D. Mali:** *Reviewed one research paper for each the following journals*
  - International journal of acoustics and vibrations*
  - Low Frequency Noise, Vibration and Active Control*
- Dr. Shibu Clement:** *Reviewed Three chapters of forthcoming Heat Transfer text book by Oxford University Press.*
- Dr. Sachin Waigaonkar:** *Reviewed one paper in ' Computaional Material Scinece' Elsevier publications.*
- Prof. D M Kulkarni:** *Reviewed one paper in International Journal of Materials Engineering Innovation*
- Dr. Rakesh G Mote:** *(i) Reviewd 1 paper in IEEE Journal of Lightwave Technology, 3 papers in International Journal of Manufacturing Technology Management.*
  - Served on Editorial board of - The Sixteenth Biennial IEEE Conference on Electromagnetic Field Computation (CEFC 2013), France.*
  - Served on Editorial board of COMPUMAG 2013: Conference on the Computation of Electromagnetic Fields, Hungary.*
- Prof. P.M. Singru** *was reviewer for NaCOOM 2013, HELD AT IIT Roorkee in December 2013 and reviewd 4 papers.*

#### E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED: 5

Sl. No.	Title	Date	Description
1	International Conference on Emerging Miniaturized Technology Micro to Nano ETMN 2013	Feb 22-23, 2013 at BITS Pilani, K.K. Birla, Goa	Prof Singru was finance chair and Dr Rakesh Mote was Purchase chair. Dr Sachin Waigaonkar managed technical program well and all faculty participated. 60 oral presentation and 200 posters were

Sl. No.	Title	Date	Description
			presented.
2	AICTE sponsored Winter School on "Industrial Applications of Mechatronics"	Mechanical Department in collaboration with Agnel Polytechnic, Verna, Goa has organized Two weeks Winter School . AICTE sponsored the winter school and was conducted in our campus.	Prof.P.M.Singru spoke on evolution and design of robots. Dr Raghavendra Naik spoke extensively on how MEMS evolved, advantages, challenges in design and fabrication of MEMS devices on silicon. Dr Sachin Waigoankar spoke on Pneumatic and Electropneumatic circuits their design and hands on implementation by the participants in the lab. Dr Rakesh Mote delivered talks on Automation, Computerized Numerical Control (CNC) in manufacturing / measurements, and Rapid Prototyping and Tooling (RP/RT). The participants were given hands on practical exposure to CNC and CMM machines in the workshop.
3	Four Days workshop on Computational Fluid Dynamics (CFD)	2nd to 5th January 2013, BITS Pilani, K.K. Birla Goa Campus	The workshop was coordinated by Dr. Shibu Clement and Mr. Sreedhar Babu, BITS Pilani – KK Birla Goa Campus. Prof. Atul Sharma, Department of Mechanical Engineering, IIT Bombay was the resource person. Ms. Akhila Mallavarapu and Mr. Narashimayan were the ASME student coordinators who managed the logistics.
4	Two Days faculty development program on " ACAD based Engineering drawing course"	24- 25 October 2013, GMR Institute of Technology, Rajam, Andhra Pradesh	Dr. Vikas Chaudhari was invited as a resource person for faculty development program. He conducted complete program. In two days programe he introduced ACAD software to the participants. He delivered lectures on Engineering Graphics and conducted hands on practical sessions using ACAD.
5	3-Days Handson Training industrial & academic professionals at Salem, Chennai	24-25-26-June-2013. ASME for industrial professionals at Chennai	Prof. D M Kulkarni was invited by ASME to conduct 3 days training programme for the industrial professionals at Chennai.

#### F. INVITED TALKS GIVEN BY BITS FACULTY: 8

Sl. No.	Authors	Host	Title	Date
1	Dr. Ranjit S Patil and Prof. P. Mahanta	CSIR - CMERI Durgapur, International workshop conducted on "Advanced Biomass Thermal Conversion Processes" organized by CSIR -CMERI in collaboration with Cranfield University UK, UCL Belgium, IIT Guwahati under FP-7 European Union Marie Curie	Fluidization Technology and Recent Trend in Fluidization Research	Dec 18-19, 2013

Sl. No.	Authors	Host	Title	Date
		Programme		
2	Dr. Rajaram Lakkaraju	Invited talk at Department of Mechanical Engineering, Indian Institute of Science, Bangalore, India	Multiphase convection	Sep 27, 2013
3	Dr. Rajaram Lakkaraju	Invited talk at Department of Mechanical and Aerospace Engineering, Indian Institute of Technology, Hyderabad, India	Role of vapor bubbles on heat transport in boiling convection	Nov 21, 2013
4	Dr. Sachin Waigaonkar	SGGS College of Engineering and Technology (Govt. Aided) Nanded (MS)	Rotational Moulding of Plastics: Process Improvement using nanoscale Reinforcements	Dec 29, 2013
5	Anant Kulkarni	S.I.T Tumkur in an Industrial Tribology workshop organized by Tribology Society of India	Major role of Tribological aspects on longevity of hip prosthesis	Aug 20, 2013
6	Dr. D M Kulkarni	American Soc of Mech Engineering (ASME), at Chennai	Advanced Finite Element Analysis	June 25, 2013

#### G. INVITED TALKS ARRANGED IN THE DEPARTMENT: 2

Sl. No.	Speaker	Topic	Date
1	Prof. Rajiv Tiwari, Professor, Department of Mechanical Engineering, IIT Guwahati	Identification of multiple fault parameters in rotor-bearing-coupling systems based on forced response measurements	19/10/2013
2	Mr. Gary Lategan, Owner of Roto Solutions, Cape Town, South Africa	Importance and Ways of effective Process Control in Rotational Moulding	28/11/2013

#### H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS: 7

Sl. No.	Name	Association/Society member
1	Dr. Ranjit S Patil	SAE India
2	Kiran Mali	IDES (Invited member)
3	Dr. Shibu Clement	SAE India
4	Dr. Sachin Waigaonkar	Association of Rotational Moulders
5	Dr. Ranjit S Patil	IAENG UK
6	Anant Kulkarni	Tribology Society of India
7	Dr Rakesh Mote	Optical Society of America (OSA), Optics and Photonics Society of Singapore (OPSS), Materials Research Society (MRS) Singapore, Optical Society of India (OSI), SPIE



**I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION: 1**

Prof. P.M. singru has visited Tata Technologies, Pune for Industry Immersion Program for one month in June 2013 and gained knowledge in the area of NVH, CAD using FEM on real life problems.

**J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR:13**

Significant equipment added during this year is as follows:

Sr. No.	Particulars
1	Comsol V 4.3a Licence towards additional RF Module for Licence No: 16073426
2	Welding Machine 200ARC, Single Phase
3	1) Class 1 acoustic calibrator with user selectable output of 94 or 114 dB at 1 kHz. 1/2" opening. (Model No. CAL200) 2) Model 831 sound level meter with Class-1 free-field pre-polarized precision condenser microphone (50mV/pa), preamplifier (PRM831), accessory kit (831-ACC). (Model No. 831-FF), 3) Option for Model 831 sound level meter. Logging with interval from 20 msec to 24hrs. (Apply only when ordered together with 831 in same order). (Model No. 831-LOG-BNDL), 4) ICP® impedance head, force/accel (Model No. 288D01) and 5) General purpose coaxial cable, white Teflon jacket, 20-ft, 10-32 plug to BNC plug (Model No. 002C20)
4	Software - 1) Ncyclo CNC technology Multimedia Software - 1 seat, 2) CNC Milling and Turning Simulation Software (See NC) - 10 seats AND 3) CNC Milling and Turning Simulation Software (DoNC) - 5 seats.
5	Ultrasonic Cleaner (Model: MX 200SH-6LQ with heater, 200 watts, 60 ltr Tank, frequency 40KHZ)
6	Autodesk AutoCAD 2014 Education Upgrade from Current & Previous Version
7	Dynisco Melt Flow Indexer Model D4003 with accessories
8	Tensile, Elongation & Modulus of Elasticity Testing Machine. Model: DTRX-10KN with accessories.
9	IZOD-CHARPY Impact Testing Machine With accessory.
10	Melt Extruder test Unit Reho Gram 100d Model along with Mixer Sensor and Accessories
11	1) NVH ANALYSIS SYSTEM, 2) SENSORS & CABLES and 3) ELECTRODYNAMIC SHAKER
12	Dynamic Mechanical Analyser (DMA) - Q800 with accessories. AND Gas Cooling Accessory (GCA)
13	1) Temperature Logger Ultra, 2) Temperature Logger Full software package, 3) Armo Dry Flow Density Kit, 4) Rotocalculator Analysis full software package AND Accessories.

**K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES:**

The following students association has arranged different activities under following categories

**(i) MESA**

Organized department orientation and freshers' meet

**(ii) ASME**

1. Orientation and Freshers in co-ordination with MESA.
2. Doubt session and orientation about Human Powered Vehicle Challenge.(HPVC)

**(iii) SAE**

3. Formation of a 25 member team to participate in Formula Student 2014 organized by SAE India
4. Organized Lecture Series on vehicle system ( like Engine and Transmission, Suspension, Chassis, Braking, Steering etc)
5. Organized lectures on CATIA.
6. Our Formula Student team known as Grease Monkeys qualified the virtual round held at KIIT Bhubaneshwar and came within the top 5 first timers from over 180 teams
7. We are currently manufacturing the car and our chassis is ready
8. We have procured a Suzuki GSXR 600cc engine specifically for this event from U.S.A.
9. We also took part in regional science congress organized by Jawahar Navodaya Vidyalaya to inspire the young students of the government school about automobiles.

**(iv) Aerodynamics Club**

1. Successfully conducted two aero events at Quark 2013
2. Construction of the war bird, the Spitfire mkII
3. LOP on Canard aircraft and paper publication for the same
4. Completely built and designed a 3m glider
5. Construction and successful flight of an ornithopter (the freebird)
6. Construction and design of an extremely stable swept back biplane.
7. Induction of first years into the club at the beginning of the academic year 2013- 2014
8. Delivery of the Aero Club lecture series which was open to all
9. Complete design and analysis of a Solar UAV for which we are actively looking for funding
10. (IGNIS)
11. Complete design and construction of a Fully autonomous quadrotor capable of GPS
12. navigation
13. Construction and engine testing of an IC engine (petrol) aircraft
14. SOP on non-planar closed wing structures
15. Developed a 4-axis CNC Foam Cutting Machine under the supervision of Dr Rakesh Mote.

**B2.11.10 Department: Physics**Number of faculty members (as on 31 December 2013): **18**

<b>Senior Professors, Professors</b>	01
<b>Associate Professors</b>	03
<b>Assistant Professors</b>	13
<b>Lecturers</b>	00
<b>Visiting Faculty</b>	01

**Head of the Department:** Gaurav Dar**Contact details:** [gdar@goa.bits-pilani.ac.in](mailto:gdar@goa.bits-pilani.ac.in)**Number of PhD Scholars:** 09**Ph.D. Thesis Submitted during the year:** 0**A. SPONSORED RESEARCH ACTIVITIES:****Total number of Sponsored Projects in the department: 07.** Details are given below.**(i) Ongoing projects:**

1. **Project title:** Improving the energy conversion efficiency of Solar Cells using Spin Caloritronics  
**Principle Investigator (PI):** E.S.Kannan  
**Co-PI:** None  
**Funding agency:** Development of Science and Technology  
**Funding amount:** 22 Lakhs  
**Project Duration** - 2012 December to 2015 December (3 Years)
2. **Project Title:** Magneto transport in magnetic tunnel junctions  
**Principal Investigator:** Dr. Ram Shanker Patel  
**Co-investigator:** None  
**Funding Agency:** Department of Science and Technology, Govt. of India, under Nanomission program  
**Funding amount:** Rs. 52.65 Lakh  
**Project Duration:** 36 months
3. **Project Title:** Development of low temperature magnetization measurement set-up  
**Principal Investigator:** Dr. Ram Shanker Patel  
**Co-investigator:** Dr. Teny John, Dr. Halan Prakash  
**Funding Agency:** Council of Scientific and Industrial Research, Govt. of India  
**Funding amount:** Rs. 13.55 Lakh  
**Project Duration:** 2012 – 14 (24 months)
4. **Project Title:** Photoluminescence Studies on Undoped and transition Metal Doped ZnO Nanoparticles  
**Principal Investigator:** Teny Theresa John

**Co-investigator:** None

**Funding Agency:** Department of Science & Technology, Govt. of India

**Funding amount:** Rs. 22.34 lakhs

**Project Duration:** 3 years

5. **Project title:** Searching for new physics beyond the standard model

**Principle investigator (PI):** 1. Chandradew Sharma 2. Prasanta Kumar Das

**Co-investigator:** 1.NA, 2. Chandradew Sharma

**Funding agency:** BITS and BRNS

6. **Project title:** Aspects of some astrophysical systems like supernovae and neutron stars in the light of new physics

**Principle investigator (PI):** 1. Chandradew Sharma 2. Prasanta Kumar Das

**Co-investigator:** 1.NA, 2. Chandradew Sharma

**Funding agency:** BITS and BRNS

7. **Project title:** Aspects of some astrophysical systems like supernovae and neutron stars in the light of new physics

**Principle investigator (PI):**Dr. Prasanta Kumar Das

**Funding agency:** DAE, BRNS, Govt. of India

8. **Project title :** Dynamics of neurons under periodic forcing by external currents

**Principal investigator :** Gaurav Dar

**Funding agency :** BITS Pilani Goa campus (see grant project)

(ii) **Projects sanctioned during the year**

1. **Project Title:** Neutron stars as a source of potential continuous gravitational wave emitter

**Principal Investigator Co-investigator:** T K JHA & S K SAHAY

**Funding Agency:** BRNS

**Funding amount:** 17 Lakhs

**Project Duration:** 3 years

2. **Project Title:** Probing new physics at high energy colliders

**Principal Investigator:** Prasanta Kumar Das

**Co-PI:** Nil

**Funding Agency:** CSIR, Govt. of India

**Funding amount:** Rs. 13.5 Lakhs

**Project Duration:** 2013-2016

3. **Project title :** Dynamics of neurons under periodic forcing by external currents

**Principal investigator :** Gaurav Dar

**Funding amount :** Rs 4.0 Lakhs

**Funding agency :** BITS Pilani Goa campus (see grant project)

(iii) **Projects completed this year:** Nil

**B. PUBLICATIONS:**

The faculty of the department published 8 papers in international/national refereed journals during the year

- (i) Connection dynamics of a gauge theory of gravity coupled with matter class. Jian Yang, Kinjal Banerjee, Yongge Ma, Quantum Grav. 30 205015 (2013)
- (ii) Einsteins Recoiling Slit Experiment, Complementarity and Uncertainty”, T. Qureshi and Radhika Vathsan, arxiv: 1210:4248v1, Quanta, Vol2, Issue 1, April 2013.
- (iii) Impact of a light stabilized radion in supernova cooling Prasanta Kumar Das, J R Selvaganapathy, **Chandradew Sharma**, Tarun Kumar Jha, V. Sunil Kumar, Published in IJMPA Vol. 28, No. 29 (2013) 1350152.
- (iv) Bose Symmetry Enables Measurement of Extra Observables Using dalitz Plots Rahul Sinha, N G Deshpande, Sandip Pakvasa, **Chandradew Sharma** Published in Asia Pacific Physics Newsletter March 2012 Vol. 1 No. 1
- (v) Radiative neutralino production in low energy supersymmetric models II. The Case of beam polarization P N Pandita, **Chandradew Sharma** Published in Phys. Rev. D 85 015021 (2012)
- (vi) TSALLIS STATISTICS AND THE ROLE OF A STABILIZED RADION IN THE SUPERNOVAE SN1987A COOLING, IJMPA **28, (2013) 1350152, AUTHORS: PRASANTA KUMAR DAS, J. SELVAGANAPATHY, CHANDRADEW SHARMA, TARUN KUMAR JHA and V. SUNIL KUMAR**
- (vii) “Tsallis statistics and the role of a light stabilized radion in supernovae cooling”  
**Prasanta Kumar Das**, J Selvaganapathy, Chandradew Sharma, TarunKumar Jha and V Sunilkumar (BITS-Pilani, Goa Campus), Journal Ref.: **IJMPA 28:1350152, 2013.** Impact factor: **1.127**
- (viii) “126 GeV Higgs boson pair production at the Linear Collider in thenoncommutative Space-time”, **Prasanta Kumar Das**(BITS-Pilani, Goa), **Abhishodh Prakash** (SUNY, Stonybrook, USA), Journal Ref.: **IJMPA 28:1350004, 2013.**

**C. CONFERENCES ATTENDED / PAPERS PRESENTED:****Dr. Radhika Vathsan:**

Quantum Information Processing and Applications, Harish-Chandra Research Institute, Allahabad, 2-8 Dec 2013.

**Dr. Chandradew Sharma**

- (i) PCPV 2013 Workshop, Fountain Hotel Mahabaleshwar, India February 19-23, 2013
- (ii) Top-Higgs Meeting at CHEP, IISc Bangalore, August 24-26 2012
- (iii) Workshop on B Physics at the LHC, Kolkata (Hotel the Sojourn), March 2-4, 2012

**(PHD Students)**

- (i) Permeability studies on nuclear membranes using confocal laser scanning microscopy, Arunkarthick S., Bijeesh M. M., Varier G.K., Kowshik M. and Nandakumar P., DAE-BRNS National Laser Symposium (NLS-22) Department of Atomic and Molecular Physics MIT, Manipal University, Manipal, Karnataka, INDIA January 8-11, 2014.
- (ii) Nonlinear refractive index measurements of BaTiO<sub>3</sub> by the Z - scan technique, Bijeesh M. M., Arunkarthick S., Varier G.K. and Nandakumar P., DAE-BRNS National Laser Symposium (NLS-22) Department of Atomic and Molecular Physics, MIT, Manipal University, Manipal, Karnataka, INDIA January 8-11, 2014.
- (iii) Optical microscopic studies on biomolecular transport through nuclear membranes  
Arunkarthick. S., Bijeesh. M. M., Geetha K. Varier, Meenal Kowshik and Nandakumar. P. Oral presentation in 37th AICBC conference. Venue - IISc and Instem, NCBS, Bangalore. From December 22 to 24.
- (iv) Studies on Nuclear Transport of FITC Labelled Dextran Using Confocal Laser Scanning Microscopy, Arunkarthick S., Bijeesh M. M., Varier G.K., Kowshik M. and Nandakumar P.

International Conference on Biotechnology and Human Welfare, December 6-8, 2013, SASTRA University and M S Swaminathan Research Foundation, Tamilnadu, India

- (v) Photothermal Laser Scanning Microscopy, S. Arunkarthick, M. M. Bijeesh, Geetha K. Varier, Meenal Kowshik and P. Nandakumar, International conference: "Focus on Microscopy – 2013", Maastricht, The Netherlands, March 24 - 27, 2013.

**D. BOOKS PUBLISHED / EDITED DURING THE YEAR:**

**E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED**

**Dr. Chandradew Sharma**

The HIGGSTOP-2013 workshop was organized in association with RECAPP (Regional Centre for Accelerator based Particle Physics), Harish-Chandra Research Institute, Allahabad. [NOC member, February 25 – 27, 2013]

**Prasanta Kumar Das**

The physics department of BITS-Pilani, K K Birla Goa campus recently has organised the workshop HIGGSTOP-2013. The workshop was held from 25th February to 27th February, 2013. Dr. Prasanta Kumar Das was the **Convenor** of that workshop and a member of the National Organizing Committee.

**F. INVITED TALKS GIVEN BY BITS FACULTY:**

**Dr. Radhika Vathsan**

- (i) "Complementarity and Uncertainty", invited talk at the KSTA-BUB lecture series in Frontier Areas of Research, Bangalore University, 27 Sept 2013
- (ii) Aspects of Complementarity and Uncertainty, invited talk at Quantum In-formation Processing and Applications, HRI Allahabad, 4 Dec 2013

**Dr. Chandradew Sharma**

- (i) Expert Speaker, The Indian Association of Physics Teachers Workshop on Statistical Mechanics, for physics teachers, held at BITS Pilani K K Birla Goa Campus, March 22-23, 2013
- (ii) Expert Speaker, The Indian Association of Physics Teachers Workshop on Electromagnetic Theory for College Teachers held at BITS Pilani K K Birla Goa Campus, March 10-11, 2012

**Dr. Swarup Kumar Majee**

- (i) Delivered a 'Colloquium on The Nobel Prize in Physics 2013' on 15-Oct-2013 at the campus.

**E. INVITED TALKS ARRANGED IN THE DEPARTMENT:**

**Dr. Ram Shanker Patel**

- (ii) Prof. A. K. Majumdar, Professor of Physics (retired), Indian Institute of Technology Kanpur visited the institute from November 20th to 25th, 2013. He delivered lectures on "Magnetism: fundamentals, measurement techniques, and current applications".

**H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS:**

**I. Faculty Development, International Collaboration & Industry Immersion:**

- (i) **Dr. Ram Shanker Patel:** established international research collaboration with the group of Dr. S. P. Dash, Quantum Device Physics Laboratory, and Chalmers University of Technology, Sweden. Dr. Patel visited the Quantum Device Physics Laboratory from June 1st to July 3rd, 2013 for collaborative research experiments.
- (ii) **Radhika Vathsan:** Sabbatical from June 17 to Dec 18 2013 spent at Raman Research Institute, Bangalore.
- (iii) **Dr. Swarup Kumar Majee** performed PS-I duties this year at the Bokaro and Tata PS Center.

**J. SIGNIFICANT NEW EQUIPMENTS / EXPERIMENTAL FACILITY ADDED DURING THE YEAR:**

(i) **Photoluminescence set up** (He-Cd laser, USB 4000 extended range spectrometer and related optics)

(ii) **Institute liquid nitrogen facility**

BITS Pilani - K K Birla Goa Campus got its own nitrogen liquefier this semester to strengthen its research and teaching infrastructure. The facility became operational from November 18th, 2013. The salient features of the facility are:

1. Liquid nitrogen production rate: > 20 liter/day (0.8 liters/hr)
2. Storage Dewar capacity: 100 liters.
3. It has a 3.5 kW helium compressor for liquefying the atmospheric nitrogen after drying and filtering it.
4. Model: Cryomech LNP 20 (A Quantum Design Company)

(iii) **KOSAMBI**: IBM Cluster of 6 processors ES-2680 48 cores 2.7 GHz 1000 GFlops/s, centrally placed and networked to all individual faculty computers

**K. DEPARTMENTAL ASSOCIATION / CLUB ACTIVITIES:**

**E.S Kannan**: Department Seminar Co-ordinator for the academic year 2013-14 **Tarun Kumar Jha**: (Astroclub) Work on Astronomical Observatory initiated, ordered the accessories and the telescope.

**Dr. Swarup Kumar Majee** organizing and conveying the departmental faculty meeting for the 2013-14 Semester - I and Semester - II

**B2.12 DIVISION / UNIT/ CENTRE-WISE ACTIVITY.****ALUMNI AFFAIRS DIVISION****Distinguished Alumnus Award 2013**

"BITS Pilani Distinguished Alumnus Award" in 2013 to the following alumni:

- Mr. Ramesh Ramanathan, Founder, Janaagraha Centre for Citizenship and Democracy, Bangalore, India.
- Dr. Vijay Chandru, Founder and Chairman, Strand Life Sciences, Bangalore, India.
- Mr. Pankaj Patel, Executive Vice President and Chief Development Officer, Cisco Systems Inc., San Jose, CA, USA
- Prof. S P Kothari, Deputy Dean and Gordon Y Billard Professor of Management, MIT Sloan School of Management, Massachusetts, USA and
- Mr. Rajesh Hukku, Former Chairman and CEO, i-Flex Solutions, CA, USA.

This is in recognition of their significant and outstanding contributions to Professional management of businesses, entrepreneurship or academic teaching and/or research.

**Embryo Lectures**

Alumni Affairs Division of BITS Pilani K K Birla Goa Campus has organized 7 Embryo talks during the year 2013. Details are as follows:

Name of the Alumn(us)i	Topic	Date
Dr. Traun Khanna	Essence of Entrepreneurship in Emerging Markets	8 <sup>th</sup> April, 2013
Dr. Kiran Bedi	Importance of Leadership in Today's India	20 <sup>th</sup> August, 2013

1. Srivarsha Rajshekhar 2. Adwait Gandhe	BITS2MSPHD	31 <sup>st</sup> August, 2013
Mr. Gaurav Tekriwal	Vedic Maths	6 <sup>th</sup> September, 2013
1. Shivakumar Ganeshan, 2. Siddharth Ramesh Karthikeyan Krishnamurthy	What lies ahead? – MS, MBA or Entrepreneurship	12 <sup>th</sup> September, 2013
Anupama T V	Ever wondered about getting into IAS	1 <sup>st</sup> October, 2013
Rajroshan Sawhney	MBA at the Indian School of Business	7 <sup>th</sup> October, 2013

**On-campus lectures:**

Name of the Speaker(s)	Topic	Date	Held at
1. Lakshmanan Krishnamoorthy 2. Rakesh Komuravelli 3. Chinmay Kulkarni 4. Rizwan 5. Arpit 6. Vishwa 7. Rajat Tibrewal	Alumni Research Talks on 1. Hardware and Parallel Computing 2. Human – Computer Interaction 3. Planar Graph Algorithms (Basic and Advanced) 4. Tele – Immersive Systems 5. Integration of Computer Science and Medicine 6. DSA Lab Assignments at Google Scale	12 <sup>th</sup> - 14 <sup>th</sup> January, 2013	Telepresence room
EEE & ENI Faculties across Pilani, Goa & Hyderabad Campuses	Future Avenues in EEE & ENI	9 <sup>th</sup> February, 2013	Telepresence room
Dr. John C Mather	The History of Universe (a Pre- Apogy Talk)	13 <sup>th</sup> February, 2013	LC-101
J.Hareesh	BITSAA International – Introduction and Tips and Insights for Campus Placements	August 24, 2013	LT-4
Vishal Goel	Finance and Equities Markets	1 <sup>st</sup> September, 2013	LT-2
Dr. Kanna Rajan	Artificial Intelligence Planning Execution and Cognitive Architectures	30 <sup>th</sup> October, 2013	LT-4

**Regular Activities**

Other regular activities like the bi-annual 'Director's Tea Party', batch snap sessions, Alumni Affairs Division registrations, souvenir distributions, bringing out the yearbook 'Melange' for out-going students, hosting visiting alumni on campus, etc.

**COMMUNITY WELFARE**

During the calendar year 2013, the following activities have been facilitated for community welfare:

As always, the Medical Centre has been providing OPD services as well as 24 x 7 emergency medical services to all the campus residents. An in-house pharmacy is available at the medical centre and a lab collection point to provide diagnostic facilities has been functional with a tie-up with a local diagnostic laboratory, Ranbaxy and Thyrocare. The Medical Centre has state-of-the-art equipment such as Dental Chair, Digital X-ray machines, Tread mill (TMT), ECG machine, Lung function test, X-ray, Multiparameter monitors, Defibrillator, Syringe pumps.etc



A Cashless Medical Reimbursement Scheme has been operational to provide easily accessible medical care to the residents of the campus. The Scheme can be accessed through a health card, which can also be used to receive treatment for various medical and surgical ailments from the Specialists from Goa. Following are the specialties available for routine and on call basis for out-patient care – Gen. Medicine / Gen Surgery / Orthopaedics / Dermatology.

Periodic testing of water is carried out for all the water coolers installed in food outlets, hostels and administrative buildings to ensure that they are maintaining good hygienic standards. Water testing from a few crucial points for the campus supply is also being implemented.

The Child Care Centre on campus is operating as a playschool for infant children in the morning and a Day Care in the afternoon for providing invaluable support and care to the children of BITS faculty and staff. The center is provided with all necessary facilities (toys, activities, educational material, infrastructure etc.). Drawing, dance, karate, music and mental arithmetic classes by professionals are being conducted for the children of campus residents.

The student activity center has a designated as Music/Yoga/prayer hall. It is being used by all the campus community for various activities such as yoga and meditation, chanting of Vishnu Sahasranama, Sunderkand Path, Conducting of Holy Mass and choir practice. Classes for Hindustani music, Carnatic music, Western classical music, Veena, Harmonium and Violin are also being conducted, both for the students as well as other campus residents.

National and religious festivals like Republic day, Independence day, Lohri, Basant Panchami (which is also BITS Pilani Founder's Day), Ram Navami, Janmashtami, Ganesh Chaturthi, Durga Pooja, and Christmas were celebrated with active participation of all the campus residents and students. During these festivals cultural performances of campus children and students were organized.

Quark 2013 Quantum Leaps, a National level technical festival of BITS Pilani Goa Campus was held from 1<sup>st</sup> February to 3<sup>rd</sup> February. It was inaugurated by Mr. Ravi Gomatam, the Director of Bhaktivedanta Institute (Berkeley and Mumbai) and the newly formed Institute for Semantic Information Sciences and Technology (Berkeley and Mumbai). He is also a BITS Alumnus. This year the aim was to keep it a purely technical festival. Talks by Dr. Chris Phillips, better known as the Invisible Man, a professor at the prestigious Imperial College, various other renowned guests and a great line-up of technical events, workshops and exhibitions surely set the momentum going in taking the Quantum Leap forward.

Waves 2013, the three day annual cultural festival held in November from 7<sup>nd</sup> to 10<sup>th</sup>, was inaugurated by performances of the BITS Music Club, the Mime club, and French street performer Ms Gusteau. With events ranging from literary to music, dance and drama, the fest had something for everyone. There was participation of over 3000 students from nearly 80 colleges. Christ University, HR College and NIFT were some of the biggest contingents. Music nights with Nikhil D'Souza, Blackstratblues, Albatross and Karsh Kale, Comedy Night with East India Comedy Company and a finale performance by Vishal - Shekhar, were some of the highlights of the festival.

This year also saw campus wide cleaning initiatives, placement of dustbins for segregation and collection of garbage, organized parking in the main building precincts.

## **INTERNATIONAL PROGRAMMES AND COLLABORATION DIVISION**

### **National University of Singapore**

Professor B.V.R. Chowdari who is the executive Director for NUS-India Research Initiatives had visited us on 2<sup>nd</sup> and 3<sup>rd</sup> April 2013 and addressed both students and faculty.

He offered two student summer internships for our campus

### **University of Missouri**

Prof. Katti Kateesh delivered a lecture on: Green Nanotechnology Connects Western Medicine with Traditional Herbal Medicine and Oncological Implications of Tea-Based Gold Nanoparticles for Treating Prostate and other Cancers on August 5<sup>th</sup> 2013.

A team of 13 different faculty members from University of Missouri led by Prof. Katti Kateesh visited Goa campus under their Global Scholars programme on 6<sup>th</sup> January 2014 to discuss about possible collaborations between the two universities.

**INRIA – inventors for the digital world is a French internship programme.** Each year, Inria welcomes students from all over the world for a research training experience through the Internships programme. The aim of the Internships programme is to strengthen Inria's scientific partnerships by welcoming excellent students from partner institutions abroad and training them through research. BITS Pilani has become a partner institution with INRIA in December 2013.

Dr. Michel Torrijos, Head - Technology Transfer, INRA, France delivered a lecture on 25/09/2013 The topic was on Anaerobic digestion

#### **PRACTICE SCHOOL:**

During SEM II, 2012-13 and SEM I, 2013-14 669 first degree students and 43 higher degree students went for PS-II from Goa campus. The faculty members who were involved as PSII Instructor for stations in Goa were Dr. Geetha Varier, Dr. Anita B Agarwal, Dr. Sumit Biswas, and Dr. Saroj S. Baral.

During summer term 2013, total of 605 students went to 142 PS-1 stations from the Goa campus. A total number of 18 faculty members & 16 students' co-instructor accompanied the students for PS-1. Total no. of stations opened by Goa campus students are 40.

#### **PS 1-2013 Faculty members**

SR.NO	PSRN	FACULTY NAME
1	81	Raghavendra G.S
2	114	Sanjay Kumar Sahay
3	124	Sunil Kumar V
4	199	Dillip Kumar Mohanty
5	212	Naik Raghavendra Datta
6	298	Jayadevan K.P
7	323	Rajendra Kumar Roul
8	334	Pravin Sakharam Mane
9	337	K.Chandram
10	482	Ranjit S Patil
11	485	Swagat Kishore Mishra
12	488	Malabika Biswas
13	503	Siva Rama Krishna Prasad Talasila
14	506	G.Karthikeyan
15	507	Shailendra Kumar Dhakad
16	529	Rakesh Mote
17	545	Madhu Kallingalthodi
18	558	Swarup Kumar Majee

#### **PS-1-2013 Student Co-instructors**

Sr. No	ID	NAME
1	2010A4PS173G	Kousik Parakollu
2	2010A7PS127G	Pulkit Saraf
3	2010A7PS158G	Saurabh K Agarwal
4	2010A8PS322G	Ninad Dike
5	2010B1A8199G	Santosh T
6	2010B2A1587G	Dhanekula Abhimanyu Chowdary
7	2010B2A3623G	Hriday Mehta
8	2010B2A7583G	Savya Sanchi Mittal
9	2010B3A1229G	Akshay Sohal

Sr. No	ID	NAME
10	2010B3A7530G	Annie Pillai
11	2010B2A7440G	Abhishek Nair
12	2010C6PS539G	Shaik Mohammed Faizaan
13	2012H101015G	P.Hanumanth Reddy
14	2012H101018G	D.Satish Kumar
15	2012H101023G	Pragya Singh
16	2012H141033G	Khemraj Sawantmorye

#### **PUBLICATIONS DIVISION:**

The Publications Division published the BITScan Semester Newsletter Issue 6 and 7 and the Convocation Proceedings 2013 in this year. The division also regularly sent Press Releases to National and International media after every Campus event. The website Banner News and Latest News was also updated regularly with current events.

#### **PUBLIC RELATIONS:**

Public Relations office coordinated following events :

S.No.	Guest Name/Event Name	Topic	Date	Requested by
1	H. E. The Governor Shri Bharat Vir Wanchoo.	BITS Connect 2.0	09 <sup>th</sup> January 2013	Director
2	Research Promotion workshop	Research Promotion workshop	16 <sup>th</sup> 20 <sup>th</sup> Jan 13	Dr. T Singh
3	Oroflame Conference	Oroflame Conference at Auditorium	21st - 23rd Jan 2013	PR Office
4	Dr. Ravi Gomantak, Chief Guest Quark 2013	Quark 2013	31 <sup>st</sup> Jan2013	
5	BITS Alumni (70-75 batch)	Gurudakshina 2013 Function	14 <sup>th</sup> Feb 2013	Director
6	Zee Learn Ltd (Kidzee)	I Care Seminar at Auditorium	17th Feb 2013	PR Office
7	Dr. GP Srivastav, VC Of ICFAI University, Jaipur	Campus Visit	19th - 20th Feb2013	Director
8	Dr. Chandra Shekhar, Director, CSIR, Chief Guest of ETMN2013	Emerging Technologies Micro to Nano 2013 "ETMN 2013"	23rd -24th Feb 2013	Dr. Sunil Bhand & Prof. PM Singru
9	Speakers and Performers	Tedx 2013	24th Feb 2013	
10	HIGGSTOP-2013	HIGGSTOP-2013	25th-27th Feb 2013	Dr. Prasanta kumar Das
11	Data Analytics & Application Workshop	Data Analytics & Application Workshop	25th-04March 2013	Dr. Bharat Deshpandey
12	Ashok Pandey, BITS Alumni & Saare Jahan se	Spree 2013	2nd March 2013	Dr. DM Kulkarni

S.No.	Guest Name/Event Name	Topic	Date	Requested by
	Achha Movie Screening			
13	Dr. RT Durai Prabhakaran, Prof. Bent Sorrensen & Prof. Lars from Denmark	to discuss proposals of wind mill reserch in cell	5th-7th March2013	Prof. BJC Babu
14	Mr. Margaret Burnett	The Association fo Computing Machinery (ACM) Goa chapter, Deliver lecture on IT	02nd April 2013	Dr. BM Deshpandey
15	Dr. Gautam Chatterjee +4 prsn	Aditya Birla Science & Technology Company Ltd. (ABSTC)	3rd-5th April 2013	Prof. SD Manjare
16	Sri Sri Ravishankar Ji	Art Of Living	18th June 2013	
17	SIGH-2013 Conference	SIGH-2013 Conference	22nd June to 5th July 2013	Dr. Suman Kapoor, BITS Hyd.
18	Mr. Rahul Dravid, Chief Guest &Dr. KM Birla, Chancellor	Convocation 2013	11th August 2013	
19	Dr. P. Anandan, Managing Director, Microsoft Research	Guest Talk on "Opportunities at MSR"	20th -21st Sept 2013	Director's Office
20	Health Information System (HISP workshop)	Health Information System (HISP workshop)	26-28 Sept 2013	Dr. Suman Kapoor, BITS Hyd.
21	EWB-2013		5th 6th Oct-2013	
22	BITS Alumni (69batch)	Meeting	21st Oct 2013	BITSAA Division
23		Waves 2013	8-10th Nov 2013	Director's Office
24	VC Visit	VC Visit	17-22nd Nov 2013	Director's Office
25	DST-PAC Conference	DST-PAC Conference	20-23 Nove 2013	Dr. Vijayashree Nayak
26	14 Goan Diaspora youth	6th Know Goa Programme	27th Nov 2013	Director's Office
27	Toxinological Society of India 2013 Conference	Toxinological Society of India 2013	18-22 Dec 2013	Dr. Dibakar Chakrabarty
28	Conference by Mathematic Dept.	Mathematical Foundation of Advanced Finite Element Methods (MFAFEM-2013)	26 Dec 2013- 03 Jan 2014	Dr. P Dhanjaya

**RESERCH CONSULTANCY EDUCATION DEVELOPMENT DIVISION**

**FINANCE AND FUND SUPPORT**

**ONGOING SPONSORED RESEARCH PROJECTS**

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
1.	Development of biosensors and micro-techniques for analysis of pesticide residues, aflatoxin, heavy metals and bacterial contamination in milk	<b>Dr. Sunil Bhand</b>	ICAR (Under NAIP)	<b>[444,47989 revised]</b> (Total Rs. 2943.736 lakhs for consortium project)	4.16 years
2.	Detection and mitigation of dairy pathogens and detection of adulterants using chemical biology	<b>Dr. Sunil Bhand</b>	ICAR (under NAIP)	<b>[91.34975 revised]</b> (BITS-Goa share out of 695.7363 lakhs)	3 years
3.	Development of turn-on type chemodosimeter for selective recognition of sulfhydryl-containing amino acids and peptides in aqueous media	<b>Dr. Amrita Chatterjee</b>	DST	<b>[19,86,600]</b>	3 Years
4.	Redox sensitive vesicles of Cucurbit[7]urils as an efficient targeted intracellular drug delivery vehicle	<b>Dr. Mainak Banerjee</b>	DST	<b>[24,15,000]</b>	3 years
5.	Development of Nanostructured High Surface Area Alumina and Silica based adsorbent with Tailored Pore structure for Removal of Fluoride ions from Ground Water	<b>Dr. N N Ghosh</b>	BRNS	<b>[29,07,150]</b>	3 years
6.	Novel Schiff base acrocyclic containing Se-Se bonds and their reduced analogues: Synthesis, characterization, comparative coordination chemistry and theoretical studies	<b>Dr. Arunashree Panda</b>	DST (WOS)	<b>[21,96,000]</b>	3 years
7.	Photoluminescence Studies on Undoped and Transition Metal Doped ZnO Nanoparticles	<b>Dr. Teny Theresa John</b>	DST-FT	<b>[23,34,000]</b>	3 Years
8.	Investigation of Schottky contacts to Silicon Carbide (SiC) using I-V and C-V techniques	<b>Dr. C. K. Ramesha</b> 39-453/2010(SR)	UGC	<b>[10,77,800]</b>	3 years
9.	Wireless Sensor Network Design for inaccessible	<b>Dr. K. R. Anupama</b> 39-893/2010(SR)	UGC	<b>[5,38,000]</b>	3 years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
	terrains				
10.	Synthesis and characterization of binary and ternary transition metal nitrides	<b>Dr. R. N. Panda</b> <b>SR/S1/PC/0063/2010</b>	DST	<b>[18,95,000]</b>	3 years
11.	Structure elucidation of VC0395_300 protein from Vibrio cholera (leading to an alternate methodolerae epidemics)	<b>Dr. Sumit Biswas</b> <b>2010/37B/51/BRNS</b>	BRNS, DAE	<b>[21,97,850]</b>	3 years
12.	Biochemical and genetic Characterization of Antimicrobial (Candidacidal) peptides produced by the anatarctic strain Enterococcus faecalis APR 210	<b>Dr. Utpal Roy</b> Dr. Angshuman Sarkar Dr. Sumit Biswas <b>39-205/2010(SR)</b>	UGC	<b>[7,33,800]</b>	3 years
13.	A new novel biodegradable polymer scaffold for cartilage tissue engineering	<b>Dr. Vijayashree Nayak</b> <b>2011/37B/04/BRNS</b>	BRNS, DAE	<b>[21,02,500]</b>	3 years
14.	Aspects of some astrophysical systems like supernovae and neutrontars in the light of new physics	<b>Dr. Prasanta Das</b> <b>2011/37P/08/BRNS</b>	BRNS, DAE	<b>[17,51,000]</b>	3 years
15.	Magnetic properties of metallic nano particles	<b>Dr. R N Panda</b> <b>01(2457)/11/EMR-II</b>	CSIR	<b>[10,81,080]</b>	3 years
16.	Study the effect on nanoparticles on protein synthesis and expression of small GTPases	<b>Dr. Angshuman Sarkar</b> <b>2011/37B/25/BRNS</b>	BRNS	<b>[19,07,000]</b>	3 years
17.	Physicochemical characterization of the primary sigma factor of Vibrio cholera	<b>Dr. Sumit Biswas</b> <b>BT/210/NE/TBP/2011</b>	DBT (under Twinning Program for the NE)	<b>[7,97,000]</b>	3 years
18.	Study of effective interactions in charged colloidal suspensions	<b>Dr. Raghunath Behera</b> <b>01(2513)/11/EMR-II</b>	CSIR	<b>[12,00,000]</b>	3 years
19.	Development of low temperature magnetization	<b>Dr. Ram Shankar Patel</b>	CSIR	<b>[13,85,000]</b>	3 years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
	measurement set-up	<b>03(1204)/12/EMR-II</b>			
20.	Studies on Putative GGEEF/Sensory Box Domain Protein of Vibrio Cholerae	<b>Dr. Sumit Biswas SR/FT/LS-122/2010</b>	DST	<b>[21,80,000]</b>	3 years
21.	Magnetotactic bacteria: Bioresource of nanomagnets (Magnetosomes)	<b>Dr. Nimali N Prabhu SR/FT/LS-120/2011</b>	DST	<b>[25,00,000]</b>	3 years
22.	Tissue engineering of human placental stem cells into a functional pancreas	<b>Dr. Anasuya Ganguly SR/FT/LS-137/2011</b>	DST	<b>[22,14,000]</b>	3 years
23.	Hardware implementation of time frequency distribution of Mirnov oscillation in Tokamak using the Hilbert Huangtransform	<b>Dr. Amalin Prince</b>  Prof. K.R.Anupama Mrs. Femi. R.  <b>BRFST/NFP/2012/AU G/N/03</b>	Board of research in fusion science and technology (BRFST)	<b>[22,58,000]</b>	2 years
24.	Magnetotransport in magnetic tunnel junctions	<b>Dr. Ram Shankar Patel SR/NM/NS-1002/2010(G)</b>	DST	<b>[52,65,000]</b>	3 years
25.	Design and development of condition based monitoring of pipelines using wireless sensor networks	<b>Dr. K.R. Anupama</b>  Dr. Arun Kumar Jalan Dr. Lucy J Gudino Dr. K. N. Ponnani Dr. Sharad Srivastava Dr. Neena Goveas  <b>GAIL/NOIDA/R&amp;D/BITS/WSN/2012/01</b>	GAIL	<b>[71,36,000]</b>	2 years
26.	Seawater desalination using liquefied natural gas (LNG) refrigeration	<b>Prof. K. Srinivas GAIL/NOIDA/R&amp;D/BITS-GOA-LNG/2012/01</b>	GAIL	<b>[3,82,21,000]</b>	3 years
27.	Bio-Catalytic Production of a Commercial Textile Dye Indigo	<b>Dr. M. Srikanth 8-136-2009/STE-DIR/Acct/Part/738</b>	DSTE, Goa.	<b>[5,11,200]</b>	1 year
28.	Exploring spiritual quotient and analyzing its impact on the research performance of university teachers in India	<b>Dr. Shalini Upadhyay 02-167/2011-RP</b>	ICSSR	<b>[6,57,900]</b>	2 years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
29.	Prediction of thermodynamic, thermophysical, transport, thermoacoustical and excess properties of binary, multicomponent liquid mixtures and ionic liquids (RTIL's)	<b>Dr. Ranjan Dey</b> <b>01(2682)/12/EMR-II</b>	CSIR	<b>[10,12,830]</b>	3 years
30.	High-efficiency energy conversion in Steam boilers using unmixed combustion	<b>Prof. K. Srinivas</b> <b>SR/S3/CE/031/2011</b>	DST	<b>[31,05,000]</b>	3 years
31.	Experimental wear analysis of an artificial hip implant materials using an advanced tribometer customized for bio-tribological studies	<b>Prof. D. M. Kulkarni</b> Mr. A. C. Kukarni Dr. Hemant Kumar Mrs. Jyotsna Kulkarni <b>SR/S3/MERC/0077/2011</b>	DST	<b>[20,50,000]</b>	2 years
32.	An Investigation on Derivatives of meso Tetrathienylporphyrin as dye sensitized Solar cells	<b>Dr. P. Bhavana</b> <b>02(0076)/12/EMR-II</b>	CSIR	<b>[17,11,080]</b>	3 years
33.	Protein-ranking and novel Intervention strategies against mycobacterium tuberculosis using graph theory and bioinformatics resources	<b>Dr Veeky Baths</b> Dr. Utpal Roy <b>SR/FT/LS-83/2012</b>	DST-FT	<b>[8,60,000]</b>	3 years
34.	Experimental investigations of rotational moulding process using nano-scale fumed silica composites	<b>Dr.Sachin D Waigaonkar</b> <b>SR/FTP/ETA-61/2012</b>	DST-FT	<b>[15,84,000]</b>	3 years
35.	Spectroscopic investigation of the properties of low lying electronic states of some chemopreventive retinyl nitrones and comparison of their light-induced properties with retinyl iminium ions	<b>Dr. Anjan Chatopadhyay</b> Dr. Mainak Banerjee <b>01(2681)/12/EMR-II</b>	CSIR	<b>[12,64,830]</b>	3 years
36.	Synthesis of metal-organic-porous material based efficient chiral heterogenous catalysts by post synthetic modification	<b>Dr. Mainak Banerjee</b> <b>02(0075)/12/EMR-II</b>	CSIR	<b>[22,25,580]</b>	3 years



S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
	and their applications in asymmetric reactions				
37.	Analysis of metabolically active bacterial species in anaerobic digesters	<b>Dr. M. Srikanth</b> <b>37(1555)/12/EMR-II</b>	CSIR	<b>[21,10,800]</b>	3 years
38.	Probing New Physics at high energy colliders	<b>Dr. Prasanta Das</b> <b>03(1244)/12/EMR-II</b>	CSIR	<b>[15,66,800]</b>	3 years
39.	Rotational moulding of LLDPE using nanoscale fumed silica composites	<b>Dr.Sachin Waigaonkar</b> <b>F.20-3(21)/2012(BSR)</b>	UGC Start up grant for newly recruited faculty	<b>[6,00,000]</b>	3 years
40.	Cloning and characterization of the promoters of Staphylococcus aureus temperate bacteriophage, $\phi$ 11	<b>Dr. Malabika Biswas</b> <b>2013/37B19/BRNS</b>	BRNS	<b>[23,99,719]</b>	3 years
41.	Studies in neighborhood magic graphs	<b>Dr. Tarkeswar Singh</b> <b>SR/S4/MS:734/11</b>	DST (Major)	<b>[12,69,360]</b>	3 years
42.	Identification and characterization of abiotic stress responsive With No Lysine (WNL) kinase in rice (Oryza sativa L.)	<b>Dr. Kundan Kumar</b> <b>SB/FT/LS-312/2012</b>	DST-FT	<b>[22,65,000]</b>	3 years
43.	Neutron stars as a source of potential continuous gravitational wave emitter	<b>Dr. Tarun Kumar Jha</b> Dr. S. K. Sahay <b>2013/37P/5/BRNS</b>	BRNS	<b>[17,00,000]</b>	3 years
44.	Role of environmental toxin in kidney related diseases in Canacona Taluk, Goa	<b>Dr. Anasuya Ganguly</b> Dr. M. Srikanth <b>27(0284)/13/EMR-II</b>	CSIR	<b>[11,99,400]</b>	3 years
45.	Alternative splicing in signal transduction and disease: A genome wide approach	<b>Dr. Indrani Talukdar</b> <b>SB/YS/LS-60/2013</b>	DST-FT	<b>[20,00,000]</b>	3 years
46.	Development and characterization of nanomaterials for biosensors and biocatalysis	<b>Dr. N. N. Ghosh</b> <b>INT/DST/INT/UK/P-41/2012</b> Prof. Sunil Bhand	UKIERI- DST	<b>[26,32,000]</b>	2 years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
		Dr. C. K. Mitra UK counterpart Prof. Paul Antony Milner, University of Leeds			
47.	One among many? Examining the efficacy of mobile money in India,s remittance corridors	<b>Dr. Mridula Goel</b>  sub contract no. 2013-2954	Funded through University of California	<b>[4600\$]</b>	1years
48.	Imprinted polymer for sensing and removal of selected antibiotic and pesticide residue	<b>Prof. Sunil Bhand</b>  <b>NFBSFARA/PHT-4007/2013-14</b>  Dr. Y S Rajput, NDRI, Karnal Prof. Sudhir Chandra, IIT, Delhi	ICAR	<b>[6060500]</b>  (BITS share out of total 139.68410 lakhs consortium project)	2 years
49.	Searching for new physics in B-meson decay	<b>Dr. Chandradew Sharma</b> Principal collaborator: Dr. Rahul Sinha <b>2013/37P/34/BRNS</b>	BRNS	<b>[18,02,500]</b>	3 years
50.	Improving the energy efficiency of solar cells by spin caloritronics	<b>Dr. Ethirajulu S. Kannan</b> <b>SR/FTP/PS-138/2012</b>	DST-FT	<b>[2208000]</b>	3 years
51.	Biotransformation of Phosphogypsum by sulphate reducing bacteria	<b>Dr. M. Srikanth</b> <b>BT/PR7470/BCE/8/95 2/2013</b>	Environmental Biotechnology Division (DBT)	<b>[5,21,000]</b>	1 years
52.	Development of efficient bioleaching process for the metal recovery from spent catalysts	<b>Dr. S. S. Baral</b>  Dr. P. Venkateswara Rao	DBT	<b>[17,62,600]</b>	3 years
53.	Preparation of Magnetically Separable, Mesoporous Tio2 Catalyst and Study of their Catalytic Properties	<b>Dr. N.N. Ghosh</b> Coinvestigator: Dr. Mainak Banerjee	CSIR	<b>[18,24,400]</b>  Sanctioned	3 years
54.	CROSS CULTURAL COMMUNICATION – An empirical analysis of cross cultural communication variables in Indian industries leading	<b>Dr. Basavadatta Mitra</b>	UGC	<b>Approved Proposed amount [1300000]</b>	3 years

S.No.	Title of the project	Name of Principal Investigator/ Co-investigator	Funding Agency	Sanctioned amount of the project (Rs)	Duration
	towards developing appropriate strategies for multi-cultural workplaces and academia				
55.	Development of $\beta, \beta'$ -edge fused $\pi$ -elongated donor-acceptor porphyrin possessing Near-IR optical spectra	<b>Dr. Subhadeep Banerjee</b>	DST-FT	<b>Approved Proposed amount [25,20,824]</b>	3 years
56.	Flow investigation through uED-milled metallic micro channels	<b>Dr. G. Karthikeyan</b>	DST-FT	<b>Approved Proposed amount [23,00,000]</b>	3 years
57.	Regulation of hypothalamic gonadotropin releasing hormone expression by putrescine in female rats	<b>Dr. Arnab Banerjee</b>	SERC, New Delhi	<b>Approved Proposed amount [24,48,000]</b>	3 years

#### Ongoing Departmental Projects

Title of the Project	Name of the Department	Funding Agency	Sanctioned Amount (Rs)	Duration
Fund for improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	Biological Sciences	DST	29,00,000	5 years
Fund for improvement of S&T Infrastructure in Higher Educational Institutions (FIST)	Physics	DST	49,25,000	5 years
Fund for improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	Mechanical Engineering	DST	40,00,000	5 years
Fund for improvement of S&T Infrastructure in Higher Educational Institutions (FIST)	Chemistry	DST	35,00,000	5 years
Fund for improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	EEE &IE	DST	20,00,000	5 years
Fund for improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	Mathematics	DST	18,75,000	5 years

#### First Degree Thesis off Campus list first Semester 2012-2013

S.No	Name of the student	ID No	Place of thesis work
1	Surbhi Khetrpal	2009B5PS566G	RRI, Bangalore

S.No	Name of the student	ID No	Place of thesis work
2	Sneha Choudhury	2009A1PS495G	TIFR, Mumbai
3	Chetan Bansal	2008B1A1690G	INRIA, Paris
4	Apoorva Deshpande	2008B4A7139G	INRIA, Nancy, London
5	Nisheeth Bandaru	2008A3B5029G	NCCCM, BARC
6	Aditya Khandekar	2008B1A4672G	IAST-FHNW, Switzerland
7	Bharath B R	2008B2A3614G	FORSCHUNGSZENTRUM JUELICH, Germany
8	Nehil Jain	2008B4A3560G	Shared Reality Lab, McGill Canada
9	Gaurav Misra	2008B3A8616G	Center Nationale Etudies Spatiale (CNES), Toulouse, France
10	Varad Gunjal	2009A3PS146G	ETH, Zurich
11	Rajat Goyal	2008B1A8701G	EPFL, Lausanne
12	Basant Sharma	2009A4PS152G	IIIT, Hyderabad
13	Ritesh Ranjan	2009A8PS336G	CAIR, DRDO, Bangalore
14	Shah Jinal Nirenbai	2009A3PS010G	University of Michigan, USA

#### First Degree Thesis on Campus list first Semester 2012-2013

S.No	Student Name	ID No	Faculty Name	Organization
1	Vivek D.P.S.V	2009A4PS082G	Dr. Shibu Clement	DRDO, Hyderabad
2	Nithin S. Poduval	2009A4PS217G	Dr. Shibu Clement	VSSC, Trivandrum
3	V. Apuroop Sai	2009A4PS203G	Dr. Sachin Waigaonkar	DRDO, Hyderabad
4	Mr. Prathamesh Dalvi	2008 B5A4549G	Dr. Tarun Kumar Zha	IUCAA Pune
5	Aman Asija	2008B2A4649G	Dr. Patnaik	On campus
6	Shasank Saurav	2008B2A8563G	Prof Meenakshi Raman	On campus
7	Mr. Mudit Raj Gupta	2008B2A8585G	Mr. Ram Prasad Joshi	On campus
8	Mr. Ankit Asati	2008B3A8600G	Dr. R.P. Pradhan	On campus
9	Kunal Bhatia	2008B3A1464G	Prof. Mridula Goel	On campus

#### First Degree Thesis on Campus list Second Semester 2012-2013

S.No	Student Name	ID No	Faculty Name
1	T. Vignesh	2009A3PS209G	Prof. Anupama
2	Pranay Agrawal	2009A1PS475G	Prof. Mridula Goel
3	Tejas Pandey	2009A3PS168G	Dr. R.P. Pradhan
4	Kapil Sachdewa	2008B4A1538G	Dr. R.P. Pradhan
5	Tumuluru Nishchel Sai Kumar	2008B4A4558G	Dr. Pravin Singru

S.No	Student Name	ID No	Faculty Name
6	Sachin Bhatt	2008B5A3599G	Dr.T.K.Jha
7	Ayush Sharan	2008B1A4696G	Prof.D.M.Kulkarni
8	Aditya Somayaji Bulusu	2008B3A1628G	Dr.P.V.Rao
9	Mudit R Gupta	2008B2A8585G	Mr.Ramprasad Joshi
10	Nisheeth Bandaru	2008A3B5029G	Dr.Radhika Vathsan
11	Subhamanyam Kuruganti	2008B3A4657G	Dr.Patnaik
12	Shallab Mittal	2007B2A4903G	Prof.M.K.Deshmukh
13	Rahul Sadashiv Shityalkar	2008B1A4676G	Dr.Ranjan Dey
14	Nisheeth Nimmagadda	2008B1A4687G	Prof.D.M.Kulkarni
15	Govindwar Rahul Pramod	2008B2A1592G	Dr.R.P.Pradhan
16	Nikam Samer Jagannath	2008B2A4429G	Dr.Rakesh Mote
17	Phani Sarma Nagavrapu	2008B3A8373G	Dr.Chandram
18	Bollu Pavan Kumar	2008B3A8652G	Mr.CBK Moorthy
19	K Sai Teja	2008B4A1401G	Dr.Patnaik
20	Isha Kalra	2008B1A8705G	Dr.Judith Braganca
21	Pinisetty Krishna Sai	2008B3A4481G	Dr.Patnaik
22	RishavRaj	2008B3A7556G	Dr.Aswini Mishra
23	Prakhar Singh	2008B3A7630G	Dr.Aswini Mishra
24	G Ashish Reddy	2008B3A8578G	Dr.K.Chandram
25	Sindam Nataraj	2008B4A7457G	Dr.Prasanna Kumar
26	Vasa Arun Kumar	2008B5A4532G	Dr.Patnaik
27	Amit Dhanda	2008B1A8046G	Dr.Sumit Biswas
28	Sahil Malhotra	2008B3A4427G	Prof.B.J.C. Babu
29	Jigar Gadhta	2008B3A4399G	Dr.Aswini Mishra
30	Dalva Prathamesh Sanjay	2008B5A4549G	Dr.Rakesh Mote
31	Ankit Asati	2008B3A8600G	Dr.R.P.Pradhan
32	Partosh Prasanna Gote	2009A7PS030G	Mr.Ramprasad Joshi

**First Degree Thesis Off Campus list Second Semester 2012-2013**

S.No	Name of the student	ID No	Place of thesis work
1	Gaurav Misra	2008B3A8616G	IMCCE, Paris
2	Rajat Goyal	2008B1A8701G	ISB, Hyderabad
3	Aditya Khandekar	2008B1A4672G	TERI, Mumbai
4	Nehil Jain	2008B4A3560G	Shared Reality Lab, McGill Canada
5	Bharath B R	2008B2A3614G	University of Alberta,Canada
6	Chetan Bansal	2008B1A1690G	Microsoft Research Lab, Bangalore

S.No	Name of the student	ID No	Place of thesis work
7	Apoorva Deshpande	2008B4A7139G	Microsoft Research Lab, Bangalore
8	Aman Asija	2008B2A4649G	Indian Institute of Management, Bangalore
9	Nishant Agarwal	2009A7PS098G	University of Calgary
10	Aman Preet Singh	2009A7PS154G	University of Calgary
11	Anantaram V	2009A3PS059G	Technical University of Dresden
12	Pritesh Gudge	2009A7PS081G	IRI/University of Frankfurt
13	Neha Nayak	2009A7PS003G	University of Stuttgart
14	Amrit Pal	2009A1PS701G	Kopo Kopo, Inc.
15	Anuva Kulkarni	2009A3PS005G	Indian Institute of Science, Bangalore
16	Dhananjay Sathe	2009A8PS260G	ETH Zurich
17	Mayank Singh	2009A7PS050G	ETH Zurich
18	Shubhanshu Tiwari	2008B4PS664G	Politecnico De Milano
19	Vishnu Prasad K	2009A4ps072G	TIFR Hydrebad
20	Abhiraj Pratap Singh Tomar	2009A7PS286G	University of North Texas
21	Dhruva T.B.	2009A8PS097G	INRIA, France
22	Vikas Goel	2008B3A7700G	IIT, Mumbai
23	Selvam P	2008B1A3679G	UCLA, Los Angels, USA
24	Kunjan Gandhi	2008B5A3579G	University of Vermont, USA
25	Anish Pandey	2007B4A8593G	JNU, NewDelhi

**First Degree Thesis On Campus list First Semester Semester 2013-2014**

S.No	Name of the student	ID No	Place of thesis work
1.	Bhala Nilesh Narendrakumar	2009B5A3534G	Dr.Anita Agarwal
2.	Deepanshu Mehndiratta	2010A1PS455G	Prof.D.M.Kulkarni
3.	Udit Dewan	2009B2A4493G	Dr.R.N.Behera
4.	Dhilbar Roshan	2010A8PS340G	Prof. Mridula Goel
5.	Kaushal Ajay Sapre(**Hostel Accommodation NOT required)	2008B5A1463G	Dr. Toby Joseph
6.	Saubodh Bhunudas Kolhe	2009B4A8570G	Dr.Reena Cheruvalath
7.	Bhuvan Mohan singh	2008A7PS078G	Ram Prasad Joshi

S.No	Name of the student	ID No	Place of thesis work
	Rawat		
8.	Akhil Singh	2010C6PS311G	Ram Prasad Joshi
9.	Mukesh Kumar	2010A4PS258G	Prof.Mridula Goel
10.	Shivam	2009C6PS680G	Mr.Sreejith
11.	Soniya Santosh Mantri	2010A8PS305G	Dr.Sheron Figardo
12.	Dipti Sengupta	2010C6PS126G	Prof.Neena Goveas
13.	Shubham	2010A7PS178G	Prof.Mridula Goel
14.	Sharang Sharma (**Hostel Accommodation NOT required)	2009A4PS220G	Ms.Pinky Pawaskar
15.	Yafis Aijaz Sahaf	2009A4PS354G	Prof.D.M.Kulkarni
16.	Vishal Ahuja	2009B2A4467G	Dr.Sachin Waigaonkar
17.	Abhishek Arun	2009B1A1637G	Dr.R.P.Pradhan
18.	Aditya Asati	2009B5A4462G	Prof.D.M.Kulkarni
19.	Tejendra Singh	2009B4A4674G	Prof.D.M.Kulkarni
20.	Himanshu Gangal	2009B4A8597G	Prof.Gaurav Dar
21.	Utkarsh Choudhary	2009B5A1447G	Dr.Tarun Kumar Jha
22.	Isha Garg	2010B3A8473G	Mr.Swagat Kishore Mishra
23.	Rohit Sant	2010A3PS002G	Sarang Dhongdi
24.	Vemaure Lakshami Narasimahavihari	2009B4A8464G	Dr. Reena Cheruwala
25.	Adarsh N. B	2008B1A8673G	Nitin Sharma
26.	Pritam Kumar Singh	2008B2A1050G	Dr.Sukanta Mondal
27.	Amanadu Shivakrishna	2008B4A3468G	Dr. Veeniti Kumar Singh
28.	Abdul Mubeen	2008B4A3230G	Dr. Debasis patnaik
29.	Narasimhan	2010A4TS151G	Dr. Shibu clement
30.	Kurcheti Neha Kiran	2009B1A3662G	Prof. Dibakar Chakraborty
31.	Saurabh Khare	2008B4A7597G	Dr. S. K. Sahy
32.	Akshay Satish Kulkarni	2009B5A3480G	Dr. E. S. Kanan
33.	Thomas Abu C	2009B4A8673G	Dr. Prasanna Kumar
34.	Souvik Dutta	2009B5A3419G	Dr. Tobey Joseph

**First Degree Thesis Off Campus list First Semester Semester 2013-2014**

S.No	Name of the student	ID No	Place of thesis work
1.	Tarun Khanna	2009B2A4573G	ICP, University of Stuttgart, Germany
2.	Shobhit Sharma	2009B5A7540G	Dept. of Physics, Queen's University, Canada
3.	Pradyumn Agarwal	2009B1A4645G	Dept. of Mech. Engg., IISc, Bangalore
4.	Ratan Parkhe Krishna Kant	2009B5A4396G	Dept. of Aerospace Engg., IISc, Bangalore
5.	Debajyoti Datta	2010C6PS592G	Telecom ParisTech, Paris
6.	Siddharth Deshpande	2010A1PS457G	NCL Pune
7.	Siddharth Gupta	2009B4A7516G	Northwestern University, USA
8.	Nisheeta Desai	2009B5A7401G	TIFR, Mumbai
9.	Gauri Mangalgiri	2009B5A8557G	Fraunhofer ENAS Germany
10.	Pallavi Lengde	2010A3PS168G	GE Energy, HTC
11.	Priyans Murarka	2010A8PS310G	IISc Bangalore
12.	Milind Shyani	2009B5A7675G	HRI Allahabad
13.	M.Preetam Shivaram	2010A8PS383G	IISc Bangalore
14.	Akshay R K	2010A3PS027G	TU Delft, the Netherlands
15.	Neil Rajesh Dhruva	2009B3A7248G	ETH, Zurich
16.	Anirudh Wodeyar	2010A7PS001G	NIAS, Bangalore
17.	K Surya Kiran	2009B5A8412G	IISc Bangalore
18.	Anwaya Aras	2010A7PS006G	INRIA Labs
19.	Divyakumar Badheka	2010A3PS119G	ISRO, Ahmedabad

**First Semester 2012-2013 M.E. (BITS G629T) 'DESSERTATION**

S.No.	ID No.	Name of Student	Topic	Supervisor	Place
1.	2010H112441G	Shailendra Pathak .	Iphone application development using -x- code web app v/s native app as library application	Dr. Venkata Ramaswamy	Soursebits, Hyderabad
2.	2010H112442G	Sudhir Kumar .	Implementation of Ad-hoc network via Wireless Technologies using Android platform to control electrical appliances	Dr. Mangesh Bedekar	BITS-Goa
3.	2010H129002G	Ganeshkumar A .	Analysis of p53 Mutation and DNA Methylation Status of hsa-miR-145 gene in A549 and HaCaT cell lines and mechanism of anticancer activity of	Dr. Anushya Ganguly	BITS- Goa



S.No.	ID No.	Name of Student	Topic	Supervisor	Place
			ethanolic extract from Vitex negundo IN A549 CELL LINE		
4.	2010H129403G	Aswathy N. Nair	Study on Diurnal Activity Patterns in Swallowtail Butterflies, Papilio polytes (Lepidoptera : Papilionidae)	Dr. Krunshnamegh Kunte	BITS – Goa
5.	2010H129405G	Mansi Baveja .	Purification and characterisation of an anticoagulant toxin from russell's viper venom and development of a novel spectrophotometric assay for quantification of fibrinolysis by venom from various sources	Dr. Dibakar Chakrabarty	BITS-Goa
6.	2010H129408G	Subhasish Sahoo .	Purification and Identification of Therapeutic Components of Leaf Extract from Moringa oleifera	Dr. Sumit Biswas	BITS-Goa
7.	2010H129410G	Patil Makarand Pradeep	Inhibitory Effect of various co receptor antagonists on in-vitro infection of Human Immune Deficiency Syndrome Virus (HIV-1)	Dr. Madhuri Thakar	NARI – Pune
8.	2010H140416G	Kamdar Nishad Naresh	Design and Development of Cross-Layered Protocol Stack for Condition Based Monitoring of Pipelines Using Wireless Sensor Networks	Dr. K.R. Anupama	BITS-Goa
9.	2010H141030G	T Krishnakumar .	Design And Fabrication Of Weather Protection Accessory For Motorcycles	Dr. David Chen	Roof for two, New Delhi
10.	2010H101014G	Swethapadmini P.B.	Coke reduction and selectivity increase in allyl chloride process reactor design and engineering studies	Prof. Krishnaswamy	BITS-Goa
11.	2010H101043G	Deepak Kumar Ojha	Commissioning of Pilot plant To Study The Aqueous Ammonia based CO2 Absorption System	Prof. Krishnaswamy	BITS-Goa

**Second Semester 2012-2013 M.E. (BITS G629T) 'DESSERTATION**

S.No.	ID No.	Name of student	Topic	Supervisor	Place
1.	2010H112440G	HEMANT RATHORE .	Data Aggregation and Network Security in Wireless Sensor Network	Dr. Neena Goveas	BITS-Goa
2.	2010H140425G	GAJRAJ SINGH RATHORE	using WSN and Network Development for Underwater Wireless Sensors	Dr.K R Anupama	BITS-Goa
3.	2010H141428G	INIYAN THIRUSELVAM N	INTEGRATION OF CLINICAL STUDY BASED WEAR-SLIDING TRACK AND LOAD CURVE FOR HUMAN GAIT CYCLE AS PER ISO 14242 FOR A BALL-ON-DISC TRIBOMETER	Dr. D. M. KULKARNI	BITS-Goa
4.	2010H141430G	RANJIT KUMAR T A	Failure Analysis of a Wipe Film Evaporator Assembly	Dr. B.J.C. Babu	ABSTC Mumbai
5.	2011H101012G	PALLVEE SINGH .	CFD of Flow Nozzles In Trickle Bed Reactor	Dr. Ashok Khanna	IIT Kanpur
6.	2011H112040G	DAVIS MATHEW KURIAKOSE .	Automated Review System"	Prof. Ganesh Ramakrishnan	IIT Bombay
7.	2011H123026G	PRATEEK BINDRA .	DARK CURRENT ANALYSIS IN CMOS IMAGE SENSORS	Dr. Mukul Sarkar	IIT Delhi
8.	2011H123028G	DEVESH CHANDRA .	Designing of Microwave Circuits to Probe Nano-mechanical Resonators	Dr. Ananth Venkatesan	IISCR, Mohali
9.	2011H129001G	AKSHAT TYAGI .	A pilot scale study of struvite precipitation and ammonium sulphate production from cow urine in batch process	Dr. Srikanth Mutnuri	BITS-Goa
10.	2011H129003G	ADITYA DESHPANDE	To understand the regulation of expression of mcl1 (DNA pol $\alpha$ associated factor) by sirtuin Hst4 in Schizosaccheromyces pombe	Dr. Devyani Haldar	Hyderabad

S.No.	ID No.	Name of student	Topic	Supervisor	Place
11.	2011H129005G	S RIAZ BASHA .	Assesment of inhibitor concentration of different malarial drug	Dr.Anjali M.	GMC, Goa
12.	2011H129009G	RAGHAVENDRAPRASAD SURYAVANSHI .	A PILOT SCALE STUDY OF STRUVITE PRECIPITATION AND AMMONIUM SULPHATE PRODUCTION FROM COW URINE: CONTINUOUS PROCESS.	Dr. Srikanth Mutnuri	BITS-Goa
13.	2011H129010G	RASHMI REKHA DASH .	To study diversity of malarial parasites in India	Dr.Anjali M.	GMC Goa
14.	2011H129011G	SUBHADRA DALWANI .	Characterization of Cells from Rat Heart Valves	Dr Gopal Pande	Hyderabad
15.	2011H140049G	VYAS DHRUV MAHESHBHAI	Design and development of Cross layered protocol stack for Condition Based Pipeline monitoring system using WSN	Prof. K.R.Anupama	BITS-Goa
16.	2011H140055G	SIDDHARTH SINDHU SAH	CROSS LAYERED PROTOCOL STACK USING WIRELESS NETWORKS	K.R. Anupama	BITS-Goa
17.	2011H140057G	PHILIP GEORGE .	Design and Implementation of an Efficient Architecture for Empirical Mode Decomposition	Dr. A.Amalin Prince	BITS-Goa
18.	2011H141021G	ANEET S. RAJ .	Comparative study of Fuel Economy Simulation for Heavy Duty Truck on AVL Cruise and Autonomie	M. Sreedhar Babu	Bangalore

**CATEGORY-WISE DISTRIBUTION OF Ph.D. STUDENTS ON ROLLS DURING THE YEAR 2013**

S.No.	CATEGORY	NO. OF STUDENTS ON ROLL	
		II Sem 2012-2013	I Sem 2013-14
1.	Staff	29	31
2.	Staff (Pre-Ph.D course work)	0	0
3.	Research Fellow Students	61	79
	<b>GRAND TOTAL</b>	<b>90</b>	<b>110</b>

**STATISTICS OF Ph.D. QUALIFYING EXAMINATION****Statistical information for Ph.D. Programme**

Sem	Permitted to appear in Qual. Exam	Appeared	Passed	Failed	Did not Appear & Dropped
II Sem 2012-13	19	19	18	01	---
I Sem 2013-14	14	14	11	03	-----
Total	33	33	29	04	-----

**Analysis of Candidates permitted to appear in Ph.D qualifying examination**

(i) BITS faculty (Total) = 07

Discipline wise Break-up.

C S &amp; IS 01

Electrical/Electronics 03

Hum &amp; Mgmt. 02

Chemical 01

(ii) Full time students = 25

Discipline wise Break-up.

Biology 11

Physics 03

Chemistry 03

CS &amp; IS 02

Mechanical 01

EEE &amp; IE 04

Mathematics 01

**B2.13 CENTRAL FACILITIES REPORT****(I) CENTRAL LIBRARY**

The Library complex comprises of a spacious building covering an area of 50000 sq ft. It is designed to provide several reading halls, an exhibition room, a digital library with 11 public access internet terminals for convenient internet reference, apart from a large area earmarked for books storage. The Library has been provided with a wireless network whereby users can access the internet using their laptops. The Central Library is equipped with modern furniture well designed taking into consideration the future growth of the Library collection and the needs of the users. Presently, it has a sitting capacity of 450 which is likely to be expanded in the coming years.

The Library remains open throughout the year (except on 5 public holidays) from 09.00 am to 11.00 pm on all working days, from 9.00 am to 8.00 pm on Saturdays and from 10.00 am to 8.00 pm on Sundays and other holidays.

The Library site has been linked with the Institute home page for external access. The home page was designed and developed by the students. The Library has been using LIBSYS Library Management Software to automate all its house keeping activities. The Library internet site has got the web OPAC (Web enabled online public access catalogue). Services of Libsys Web OPAC includes advanced search options for books and journals. Old question papers can be accessed through Library site.

The Library rendered standard services like issuing of books, attending to reference queries etc.

#### Acquisition and circulation

The Library collection has reached 32950 volumes. Acquisition activities like request for purchase of new books, status of new books requested, checking of duplication, ordering, receiving of books has been processed through LIBSYS during the reported year. The Library is fully automated and circulation activities like check-out / check-in, renewal, reservation and charging of overdue fine are done using barcode scanning

#### Reference Section

During this year many handbooks were added to the existing collection of the Library. To quote a few, CRC handbook of thermal engineering, Handbook of mathematical induction, Handbook of product graphs, Oxford handbook of Indian economy etc.

The Library subscribes to 82 Indian Journals and 22 Foreign Journals of different disciplines. Online Journals like IEL, ASME, Science Direct, AEA Journals, ProQuest, ACM Digital library, Nature Physics, Nature chemistry, Nature materials, English studies etc. are also available. Apart from this there is online access to more than 3000 journals through INFLIBNET. A list of journals subscribed by the library can be accessed from the Library home page. Useful articles, news, newspaper clippings are displayed from time to time on the notice board for the information of readers.

#### Other services

The Library has a collection of 35 educational video cassettes and 1342 CDs. The Library keeps the readers informed of all the books added to the Library through a regular display of new arrivals. A list of these additions is also made available to readers on Library web site. From time to time display of books by publishers are arranged to facilitate faculty members selecting books for the library.

## (II) COMPUTER CENTRE

### (A) Computer Hardware

No.	Make	Configuration	Number	Area of utilization
01	DELL Desktops	2 GB to 8 GB RAM, 160GB to 500GB HDD, Core 2 Duo to i5 Processor	418	Central Computing Labs, Various Department Labs, Faculty members and Staff members for carrying out their academic teaching and research work.
02	HP Desktops	1 GB RAM 80 GB HDD	111	Central Computing Labs, Various Department Labs, Faculty members and Staff members for carrying out their academic teaching and research work.
03	IBM Desktops	500 MB RAM & 40 GB HDD	143	Central Computing Labs, Various Department Labs, Faculty members and Staff members for carrying out their academic teaching and research work.
04	DELL Laptops	4 GB RAM, I3 Processor 500 GB HDD	194	Faculty members are given laptops to carry out their academic as well as research work.
05	Lenovo	4 GB RAM, I3 Processor 500 GB HDD	5	Faculty members are given laptops to carry out their academic as well as research work.

Nod-32 Antivirus software is utilized across the LAN as well as for servers and client machines.

**(B) Servers**

Sl. No.	Server	Make	Qty	Configuration	OS
<b>Network servers</b>					
1	DNS	DELL	2	[DELL Optilex 755,Core 2 Duo 2.33GHZ, 2 GB RAM,160GB HDD]	Windows 2003
2	DHCP	DELL	2	[DELL Optilex 755,Core 2 Duo 2.33GHZ, 2 GB RAM,160GB HDD]	Windows 2003
3	LDAP	DELL	1	[DELL PowerEdge T410, Quad Core 2.26 GHz 8 GB RAM, 500 GB HDD]	Cent OS
4	Cisco Works	DELL	1	[DELL Optilex 755,Core 2 Duo 2.33GHZ, 2 GB RAM,160GB HDD]	Windows 2000
<b>Communication Servers</b>					
1	Web Server	DELL	1	[DELL PowerEdge T410, Quad Core 2.26 GHz 8 GB RAM, 500 GB HDD]	Windows 2003
2	Call Manager	Cisco	2	1 GB RAM, 40 GB HDD	Windows 2000
3	SWD Server	DELL	1	[DELL Optilex 755,Core 2 Duo 2.33GHZ, 2 GB RAM,160GB HDD]	Windows 2003
<b>Academic Servers</b>					
1	Academic FTP	HP	1	[DELL PowerEdge T410, Quad Core 2.26 GHz 8 GB RAM, 500 GB HDD]	Fedora
2	Staff/ Faculty FTP	HP	1	[IBM Desktop, P4 2.8GHZ, 512 MB RAM, 40GB HDD]	Fedora
3	Mech (Ansys & Pro-E)	DELL	1	[DELL Optilex 755,Core 2 Duo 2.33GHZ, 2 GB RAM,160GB HDD]	Windows XP2
5	MATLAB	IBM	1	[IBM Desktop, P4 2.8GHZ, 512 MB RAM, 40GB HDD]	Windows XP2
6	Course Management (Moodle)	DELL	1	[DELL PowerEdge T410, Quad Core 2.0 GHz,8GB RAM, 500 GB HDD]	Windows XP2
7	BITSAT	DELL	3	[DELL Optilex 755,Core 2 Duo 2.33GHZ, 2 GB RAM,160GB HDD]	Windows 2003

**(C) COMPUTER CENTER (Central Facility)**

Central Computing Lab, Zone I	IBM Desktops Pentium® 4 CPU 2.80 GHz,248 MB RAM,40GB HDD,15" Colour Monitor	10	Windows XP2, Office 2007 AutoCAD NOD 32 Antivirus
	HP Desktops Core™ 2 CPU 6300 @1.86GHz,1GB RAM,80GB HDD,15"Colour Monitor	42	
	Dell Desktops Core i5 CPU @3.30GHz,8GB RAM,500GB HDD,17"LCD Monitor	45	

Central Computing Lab, Zone II	Dell Desktops Core i3 CPU @3.30GHz,8GB RAM,500GB HDD,17"LCD Monitor	100	Windows XP2, Office 2007 AutoCAD NOD 32 Antivirus Matlab
Central Computing Lab, Zone III	Dell Desktops Core™ 2 Duo CPU E8400 @3.00GHz,2GB RAM,180GB HDD,17"LCD Monitor	100	Windows XP2, Office 2007 AutoCAD NOD 32 Antivirus Matlab PROE ANSYS
Language Lab	Dell Desktops Core™ 2 Duo CPU E8400 @3.00GHz,2GB RAM,180GB HDD,17"LCD Monitor	22	Windows XP2, Office 2007 Language Lab Study Skills
Microelectronics Lab	Dell Desktops Core™ 2 Duo CPU E8400 @3.00GHz,2GB RAM,180GB HDD,17"LCD Monitor HP Desktops Core™ 2 CPU 6300 @1.86GHz,1GB RAM,80GB HDD,15" Colour Monitor Wipro Desktops Pentium © 4 CPU 2.40 GHz, 760 MB RAM, 40 GB HDD, 15" Colour Monitor	10 4 1	Windows XP2, Office 2007

#### (D) Network Facilities

##### Campus Local Area Network

The Campus LAN Project of BITS Pilani – Goa Campus is a state of the art, completely switched, voice enabled LAN infrastructure. LAN is able to provide 100 Mbps network connectivity to all faculty cubicles, offices, library, Labs, lecture theatres, workshop, auditorium all hostel rooms, staff quarters, visitors' guest house, shopping complex, student activity center & other public facility locations in the campus. There are 3000+ nodes across the campus.

The network is a three-layer network, namely core, distribution and access. The core & distribution layer is connected through gigabit fibre optic backbone, while the access layer is using enhanced CAT5 cabling. The network is designed to provide link level and device level redundancy.

##### Wi-Fi Network

The Institute building, Visitors' Guest House, Student Activity Center and Medical Center are provided with secured Wi-Fi network facility. The Wi-Fi solution is from RUCKUS.

##### Cloud Based Services (e-mail and File Storage)

University e-mail solution is supported by Google for 30,000 users of BITS campuses and WILP students. This solution is an integrated solution covering e-mail with 25 GB space, file storage with 5 GB space, collaboration tool, file sharing, personal web-pages, calendaring system, etc

##### LAN Security

The LAN security is upgraded with high availability of firewalls. The facility also supports high availability of internet lines and support on demand bandwidth at any location.

##### Voice Communication

All faculty members have been provided with a computer and VoIP telephone facility in their chambers. The VoIP facility facilitates receiving of incoming call directly on the individual telephone.

**Video Communication**

Multi-point video conferencing facility is made available using POLYCOM HDX machine. This facility is utilized for online meetings of research groups in India as well as across the world apart from the administrative meetings.

**Internet Bandwidth**

No.	Area	Bandwidth Allocated	Service Provider
01	Hostels, Guest House	155 Mps	RELIANCE
02	Institute Building, Staff Quarters	45 Mbps	Tata Tele Services
03	Multi-Point Video Conferencing	4 Mbps	Pull from RELIANCE
04	Cross Campus Teaching and Lectures/talks from BITS Alumni using web-based technology	2 Mbps X 2 slots	Pull from RELIANCE

**Cross Campus Connectivity**

No.	Area	Bandwidth Allocated	Service Provider
01	MPLS Connectivity connecting Pilani, Hyderabad, Goa campus with the Data center co-hosted at Mumbai for the ERP applications.	5 Mbps	Tata Tele Services
02	MPLS Connectivity connecting Pilani, Hyderabad, Goa campus with the Data center co-hosted at Mumbai for the BITS Connect 2.0 applications.	30 Mbps	Tata Tele Services

**Virtual Class Room (BITS Connect 2.0)**

Virtual classroom is set up at Goa campus. This facility will enable faculty to deliver lectures to all four BITS campuses simultaneously; alumni and experts to remotely deliver lectures and conduct workshops or panel discussions to multiple BITS campuses simultaneously, with recording and streaming of lectures.

**Telepresence Conferencing Room (BITS Connect 2.0)**

Telepresence conference room of 18 capacity have been set up at Goa campus to facilitate virtual meetings for academic and administrative decisions at University level. Licenses for webex (web conferencing software) have been provided to all the faculty to facilitate discussions related to course work and research. This facility will also open up avenues of multimedia collaboration with anybody outside the campus. High end (CISCO EX 90) desktop systems are set up on the desk of Director.

**(III) WORKSHOP**

The central workshop is equipped with following equipments purchased through mechanical engineering department Capex BUDGET. : Significant equipment added during this year is as follows:

- 1 Welding Machine 200ARC, Single Phase
- 2 Software - 1) Ncyclo CNC technology Multimedia Software - 1 seat,  
2)CNC Milling and Turning Simulation Software (See NC) - 10 seats AND  
3) CNC Milling and Turning Simulation Software (DoNC) - 5 seats.
- 3 Dynisco Melt Flow Indexer Model D4003 with accessories
- 4 Tensile, Elongation & Modulus of Elasticity Testing Machine. Model: DTRX-10KN with accessories.
- 5 IZOD-CHARPY Impact Testing Machine With accessory.



- 6 Melt Extruder test Unit Reho Gram 100d Model along with Mixer Sensor and Accessories
- 7 1) NVH ANALYSIS SYSTEM, 2) SENSORS & CABLES and 3) ELECTRODYNAMIC SHAKER
- 8 Dynamic Mechanical Analyser (DMA) - Q800 with accessories. AND Gas Cooling Accessory (GCA)
- 9 1) Temperature Logger Ultra,  
2) Temperature Logger Full software package,  
3) Armo Dry Flow Density Kit,  
4) Rotocalculator Analysis full software package AND Accessories.

#### Central Facilities & Monitoring:

The central facilities on campus include central water receiving and distribution facility, central electric power receiving distribution center, Sewage Treatment plant, Diesel Generator, and central Air-conditioning plant. The details of these facilities are as follows:

Central Facilities	Installed Size/Capacity
PWD Water Connection	500cumec
Water Storage Sump	1800 cumec
Overhead Water Tank	150 cumec
No. of Bore Wells	7 Nos. / 84 cumec
GEB Electricity Supply	3000KVA and 2000 KVA at 33 KV substation are energized with distribution of load by completing loop. A separate 11 KV line connected at PCC2 for AC plant with 1000 KVA transformer
Transformer	500/1500/750/750 KVA at PCC1,2,3 and 4 respectively
Diesel Generator	2X500/62.5/62.5/750 KVA
AC Plant	660 TR
Sewage Treatment Plant	600 cumec

## B2.14 MAJOR MAINTENANCE, RENOVATIONS OR NEW CONSTRUCTION REPORTS

### Main Building

Prefabricated structure over existing workshop building (First Floor) is completed and occupied.

Additional sump tank of 600 cum is built and completed as augmentation to existing capacity.

The 2000 KVA transformer used to connect PCC4 and PCC3 where as the 3000 KVA transformer is connected with PCC1 and PCC2 to distribute the load of Campus.

### B2.15 MAJOR EQUIPMENTS ACQUIRED DURING THE YEAR

S.No.	Asset Description	Location	Rate	Qty	Amount
1	IBM Server for HSC cluster	Computer Science	1500000	1	1500000
2	Dell computer	CC Office	32550	70	2278500
3	Dell computer	mechencial engg dept	32550	16	520800
4	Laptop	New faculty	36160	5	180800
5	Sony VAIO Laptop	Directors office	68000	1	68000
6	Dell Laptop	New faculty	40000	20	799999

S.No.	Asset Description	Location	Rate	Qty	Amount
7	Lenovo Laptop	Director Office & Residence 1 each	67064	2	134127
8	Dell Optiplex 3010	Phy lab	26961	7	188729
9	Dell Optiplex 3010	Phy lab	29735	6	178409
10	Dell Laptop	A-203	48216	3	144648
11	Dell Optiplex 3010 M N series	Chemical Eng lab	39217	4	156867
12	Laptop Vostro 2420BTX base	Faucly member	30123	10	301227
13	Laptop	A-202	44688	10	446880
14	Dell Optiplex 3010 M N series	CC-219	35175	30	1055250
15	PSCAD software	EEE Dept	1101990	1	1101990
16	Heat int Education software		183656		183656
17	acrobat professional software	Director & PA	59579		59579
18	software for embedded s/ms comp network	CC A-417			134066
19	Ncyclo CNC technology multimedia software	Mechanical Engg lab			422000
20	Autocad 2014 education upgradation system	workshop			262500
21	Cadence software	EEE Dept			1114022
22	CD/prodYN advance software	Chemistry lab C-207			549700
23	All in one desktop optiplex 9010 Ad with camera	CC-204	152096		152096
24	Dell Vostro 270ft desktop	Chemistry lab C-207	70000		70000
25	chef dril system	IMA bio lab	1180199	1	1180199
26	Fume Hood auto bypass	Chemistry lab			448778
27	surface tension measurment apparatus	pet chemical engg. Dept	88237	1	88237
28	solar link test kit	EEE	159750	1	159750
29	sound system with accessries	LT-1 to 4			750008
30	Air Condition	Main Bldg-Workshop and Phy lab	469670	1	469670
31	Fluke power quality analyser	Maintenace & Electrical dept	868592	1	868592
32	Acoustic Calibrator	Mechanical Engg lab	498451	1	498451
33	DyniscoMelt Low	Mechanical Lab	433415	1	433415
34	NVH Analysis	Mechanical Lab	349793	1	349793
35	Computer master node	Phy. Lab	500000	1	500000
36	Tube cab assy.	bio lab C-101	209214	1	209214
37	semi characterization system	Phy. Lab	2051141		2051141
38	Electrochemical workstation with Bipotentiostat	Chemistry lab	1351657		1351657

S.No.	Asset Description	Location	Rate	Qty	Amount
39	Oscilloscope digital storage & function generator	EEE	1485147		1485147
40	source meter dual channel	EEE	610442		610442
41	Wind recording system	EEE	446511		446511
42	Dynamic Mechanical Analyzer & GCA	Mechanical dept			1785892
43	Motorised treadmill sole fitness,	SAC	100125		100125
44	Infrared Spectrophotometer	Chemistry lab	942863		942863
45	Teklab connected bench oscilloscope	EEE	597718		597718
46	Light detector miniSM 30035*08 opt.	Phy. Lab	142781		142781
47	Oil sealed rotary sliding vane	bio lab			77016
48	Veniti 96 well thermal cycler block format	bio lab			253125
49	flame photometer micro controller	bio lab C-106			76272
50	oil free air compressor 0.75HP	bio lab C-103			85875
51	String Vibrator	Phy. Lab			388758
52	Laws of collision	Phy. Lab			800017
53	Magnetic force	Phy. Lab			675310
54	String Vibrator	Phy. Lab			371056
55	Digital precision multimeter	Phy. Lab			894324
56	Signal processor lock in amplifier	phy. Lab B-108			1188026
57	X Ray tube type A21,CU,1Kw	phylab			383346
58	Magnetic field inside conductor	Phy lab B-113			1371816
59	Zeeman effect with CCD camera	Phy lab B-113			125000
60	Vacuum pumping system with LNT	Phy lab B-113			425940
61	Post holder with spring loaded	phy lab			808937
62	Spray pyrolysis & Spin coating machine	Phy lab B 101			667658
63	Spectrometer sys NUC RAD high sensitivity	phy lab b-113			1066420
64	Plug power set etc	phy lab			327298
65	Fume hood 1200mm L X 1000mm W X 2300 H	phys lab A-101			162375
66	Change transport in liquids	Physics lab B-113			1036167
67	Zeeman Effect with CCD camera	Physics lab B-113			2,867,070

S.No.	Asset Description	Location	Rate	Qty	Amount
68	10KVA online UPS 26ah Quanta	Physics lab B-108			218875
69	Direct Q 3 kit	Bio Lab C-103(measurement technique lab0			266,880
70	3 chaneel PH meter	Chemical Mass transfer A-105			149,205
71	CFR software for potentiometric titrator model 80 38 c	Analytical Lab A-107 Chemical Engg			78,047
72	Automatic Microprocessor Digital Bomb Calorimeter with digital diff tempure	Chemical Mass transfer A-105			427,432
73	Adam 4022T Level Trsmiteer with accessories	Chemical Processor control lab A-103			53,438
74	Universal Control Trainer Process model	Chemical Processor control lab A-103			495,000
75	Fully Automatic Cabinet Type Water distillation unit	Mass transfer lab a-105			88,898
76	ARCO make Circulator	Mass transfer lab a-105			108,833
77	Oscilloscope Digital storage	Comman lab A-201 & Analog lab-202			6,583,992
78	Acoustic starter	EEE A-201			649,757
79	Mini process control demonstration Model NV-3000	EEE Instrumentation Lab A-203			89,807
80	Tina V9 Circuit Simulation Software	EEE -A-203	31,238	2	62,475
81	Sensor lab strain guage unit open pressor sensor with accessories	EEE Instrumentation Lab A-203	227,660	3	682,980
82	Ni Veils II cricut design bundle with accessories	EEE Instrumentation Lab A-203	452,275	2	904,550
83	NI USB 9237 DAQ Card (Bridge & strian measurment + model along with cable RJ-50)with accessories	Material testing lab A-101	179,598	1	179598
84	Samsung PROF Display	Teleconferance Room		2	141750
85	Apple Mac Pro 8 core system with HD video captured card, 4TB internal storage 27 Mac monitor & FPB	WILPD Studio Room	467250.25	1	467250
86	Camera Qomo Part QD 8000	WILPD Studio Room	199500.25	1	199500
87	Interactive writing pannel QOMO part QIT 600	WILPD Studio Room	189525.25	1	189525
88	Electronic cable & connector	WILPD Studio Room	189000	1	189000
89	Ceiling light 350 lux	WILPD Studio Room	105000	1	105000
90	LED pannel light	WILPD Studio Room	17500	6	105000

S.No.	Asset Description	Location	Rate	Qty	Amount
91	Core window multigraphic processor extrom mgp 464	WILPD Studio Room	717948	1	717948
92	Annotation graphic processor extra	WILPD Studio Room	326047	1	326047
93	DSP Digital matrix processor	WILPD Studio Room	86546	1	86546
94	Format convertor	WILPD Studio Room	178500	1	178500
95	Table top touch link touch panel	WILPD Studio Room	304500	1	304500
96	Cisco projector aeisi lumen	WILPD Studio Room	157545	1	157545
97	Qomo interactive white board	WILPD Studio Room	152880	1	152880
98	Camera model no Sony TLIT zoom camera part no EVIHD7V	WILPD Studio Room	404250	1	404250
99	Transformer 1500KVA, KVA	PCC-2			4223284
100	STP Tank with all equipment				1044924
101	Canan DSR EOS	CC office			98500
102	Wind river workbench 3.3 tools for V*works 6.9	Micro Electronics Lab CC-123	1,575,000	1	1575000
103	cyberoam 2500ing Hardware	CC-119 Sever Room	797,554	1	797554
104	Ruckus Zoneflex 7762 WIFI (3395 mtrs)	Institute main Bldg.,	3,524,130	1	3524130
105	10 KVA online UPS	studio room			218875
106	Mobile Phonces				193200
107	Indfurr Insert atomopheric Furnace and metiala air cooler Flanges	Physics -MT-2 lab A-101	229,572	1	229572
108	Indfurr Insert atomopheric Furner hot zone	Physics -MT-2 lab A-101	176,902	1	176902
109	Master collection 6 multiple platforms international english	Computer sicence	53652.83	6	321917
110	Frequence response analysis software	EEE( E & I Communcation Lab)	12,600	20	252000
111	Smart sorb 93 surface area analysier software	Chemical Dept -Mass Transfer	592,525	1	592525
112	Agitator Glass Jackted Ractor 2L	Process Control Lab (A-103)	91,256	1	91256
113	Universal Strength machine - sand testing equipment	Mechanical & Digital lab	395,269	1	395269
114	Adobe Elearniing suit 6.1 single user licncse	WILPD Studio Room	64,315	1	64315
115	Memsic Micaz & MIB520	A-414	69,757	1	69757
116	pipetteman	B-110( Malavika Biswas room)	101,810	1	101810
117	738313A- IBM systems*3500 M4 Tower server	Bioinfo Lab	199,132	1	199132
118	Model 8200 UF Stirred Cell 62 mm	Biology Lab-( C-101)	148,150	1	148150
119	Rotary Evaporator	SS Baral A-104		1	71957

S.No.	Asset Description	Location	Rate	Qty	Amount
			71,957		
120	USB Extended Range Spectrometer	Physics -B-108 SSP Lab (Teny Terse)	202,765	1	202765
	Total Asset purchase from 01.01.13 to 31.12.13				70883838.22

## B2.16 STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVAL

### Students Activities

SAC promotes the student activities, games and sports like Cricket, Football, Tennis, Volleyball, Basketball, Badminton, Chess, Carom, Pool, and Table Tennis. SAC also promotes extra-curricular activities for students, faculty and their dependants in the campus. Daily training in football and cricket is conducted for the institute team.

The cricket and football ground out field has been relaid and been developed to higher standard. Up gradation of gymnasium has been done by installing latest machines and other equipments. The gymnasium functions strictly under the guidance of a trainer for safety measures.

Our institute cricket team won the GCA league and also qualified for the next stage.

The football team won the GFA All Goa 3rd Division League and got promoted to 2nd division. The team was also runner up in "SPREE" 2013.

BITS, Pilani - K. K. Birla Goa Campus was the over all champions in "SPREE" 2013 national sports festival.

The Basketball team was runner-up in the Open Tournament organized by Don Bosco Oratory Panjim

Our chess and carom team won the individual events championship in "SPREE" 2013,

The Tennis team won the open championship at Panjim organized by Gasper Dias.

As per the MOU signed between the Institute and GCA, inter state and BCCI matches like Ranji Trophy, Col.C.K.Nayudu, Cooch-Behar, Vijay Hazare and Vijay merchant Trophy are conducted at the cricket ground. Also, regular training sessions of the Salgaocar I league champion team are conducted at our Football ground.

SAC Functions daily as per the institute timing, Morning 5.30am to 8.30am and Evening: 5.30pm to 9.30pm.

### Award of Scholarship to Students

Scholarships	No. of Students	Amount
INSTITUTE'S MERIT& MERIT-CUM-NEED SCHOLARSHIP	494	27151833
STUDENT AID FUND FINANCIAL ASSISTANCE	4	37850
SCHOLARSHIP FINANCIAL ASSISTANCE TO PS II STUDENTS	14	397120
BHUSHAN BHATIA SCHOLARSHIP	2	56000
OTHER SCHOLARSHIP	6	226650
	1	\$1500
<b>Total</b>	<b>521</b>	

- One student nominated for Seventh Asian Science Camp - 2013
- Students also in receipt of INSPIRE and KVPY Scholarship.

## LIST OF ANNEXURE

	<b>Page No.</b>
1. Annexure B2-1 - SENIOR OFFICERS OF THE INSTITUTE	B2: A-1
2. Annexure B2-2 - DETAILS OF ADMISSIONS MADE DURING THE YEAR 2013	B2: A-4
3. Annexure B2-3 - DUAL DEGREES AND TRANSFERS	B2: A-6
4. Annexure B2-4 - REGISTRATION OF STUDENTS	B2: A-7
5. Annexure B2-5 - AWARD OF DEGREES AND MEDALS	B2: A-10
6. Annexure B2-6 - DEGREES TO BE APPROVED	B2: A-12
7. Annexure B2-7 - CAMPUS INTERVIEWS AND PLACEMENT	B2: A-13

Annexure 'B2-1'  
3 Pages)  
Ref. AR 2013, Page No.B2-1

### NAME AND DESIGNATION OF SENIOR OFFICE BEARERS OF GOA CAMPUS

S.No.	GPSRN	Name	Department/ Facility	Activity	Designation
1	302	K. E. Raman	EEE/Acting Director	Acting Director	Sr. Professor
2	570	Sanjeev Kumar Aggarwal	CS&IS/Director	Director	Sr. Professor
3	3	Aditya P. Koley	Chemistry/Instructi on Division	FIC	Professor
4	6	D. M. Kulkarni	Mech Engg/ Computer Centre	FIC	Associate Professor
5	7	M. K. Deshmukh	EEE/Faculty Affairs	HOD/FIC	Professor
6	9	Anand K. Patil	Maintenance	FIC	Assistant Professor
7	10	Neena Goveas	CS & IS/ ARC	FIC	Associate Professor
8	77	Prassanna Kumar	Mathematics	HOD	Associate Professor
9	33	Meenal Kowshik	Biological Sciences/ Community Welfare	HOD/FIC	Associate Professor
10	35	R. P. Pradhan	Hum & Mang./ public Relations	FIC	Assistant Professor
11	50	Anuradha Voolapalli	Library	IC	Assistant Librarian
12	52	Judith Maria Braganca	Biological Sciences/ Publications	FIC	Assistant Professor
13	80	Srikanth M.	Biological Sciences/Internatio nal Programmes and Collaborations	PIC	Associate Professor
14	68	Srinivas Krishnaswamy	Chem Engg	HOD	Associate Professor
15	70	Patincharath Nandakumar	Physics	HOD	Associate Professor
16	73	P.N.Deepak	Physics/Audio Visual	FIC	Assistant Professor
17	78	Bharat M. Deshpande	CS & IS	HOD	Associate Professor
18	83	J. V. Rao	CS & IS/ CAHU	FIC	Associate Professor
19	89	Gaurav Dar	Physics/ Placement	FIC	Associate Professor



S.No.	GPSRN	Name	Department/ Facility	Activity	Designation
20	94	Sutapa Roy Ramanan	Chem Engg/ Practice School	FIC	Professor
21	95	Sunil Bhand	Chemistry	HOD	Professor
22	104	Raghunath A. Ratabole	Physics/ WILP	FIC	Associate Professor
23	108	Pravin M. Singru	Mech Engg/ Workshop	HOD/FIC	Associate Professor
24	185	Sampatrao Dagu Manjare	Chem Engg/ RCEDD	FIC	Associate Professor
25	230	Raghavendra K.M.	Medical Centre	FIC	Assistant Professor
26	82	Veeky Baths	Biological Sciences/ BITSAA	FIC	Assistant Professor
27	328	Debasis Patnaik	Economics	HOD	Assistant Professor
28	346	Dibakar Chakrabarty	Biological Sciences	CW	Associate Professor
29	367	Meenakshi Raman	Hum & Mang.	HOD	Professor
30	433	Krishnaswamy N. Ponnani	R&D	FIC	Consultant (R&D)
31	437	Lucy Gudino	Mech Engg/ SWD And Admissions	FIC	Assistant Professor
32	522	Debasis Gupta	General Administration	IC	Deputy Registrar
33	320	Mahadev J Suryawanshi	Finance	IC	Finance Officer

**NAME OF WARDENS OF GOA CAMPUS**

S.No.	GPSRN	Name	Hostel	Activity
1	107	Amalin Prince	AH -1	Non-Resident Warden
2	485	Swagat Kumar Mishra	AH -2	Resident Warden
3	122	Ranjan Dey	AH -2	Non-Resident Warden
4	184	Anil Kumar	AH -3	Resident Warden
5	363	Mainak Benerjee	AH -3	Non-Resident Warden
6	362	Chandradew Sharma	AH -4	Resident Warden
7	121	Palla Dhanumjaya	AH -4	Non-Resident Warden
8	093	Tarkeshwar Singh	AH -5	Resident Warden
9	318	Halan Prakash	AH -5	Non-Resident Warden
10	388	Aswini Mishra	AH -6	Resident Warden

<b>S.No.</b>	<b>GPSRN</b>	<b>Name</b>	<b>Hostel</b>	<b>Activity</b>
11	180	Shibu Clement	AH -6	Non-Resident Warden
12	237	Prasanta K. Das	AH -7	Resident Warden
13	124	Sunil Kumar V	AH -7	Non-Resident Warden
14	310	S. S. Baral	AH -8	Resident Warden
15	085	Anjan Chattopadhyay	AH -8	Non-Resident Warden
16	035	R.P.Pradhan	CH -1	Resident Warden
17	226	Gautam G Bacher	CH -1	Non-Resident Warden
18	016	R.N.Behera	CH -2	Resident Warden
19	414	Angshuman Sarkar	CH -3	Resident Warden
20	033	Meenal Kowshik	CH -4	Resident Warden
21	116	Anusuya Ganguly	CH -4	Non-Resident Warden
22	381	Vijayshree Naik	CH -4	Non-Resident Warden
23	010	Neena Goveas	CH -5	Resident Warden
24	64	Anita Agarwal	CH -5	Non-Resident Warden
25	346	Dibakar Chakrabarty	CH -6	Chief Warden

Annexure 'B2-2'  
(2 Pages)  
Ref. AR 2013, Page No.B2-1

## DETAILS OF ADMISSIONS MADE DURING THE YEAR 2013

### (a) Second Semester 2012-13

#### Doctoral Programmes:

Ph.D.	08(03)
	<hr/>
	08(03)
	<hr/>

### (b) First Semester 2013-2014

#### 1. Integrated First Degree Programmes

	No. of students joined
<hr/>	
<u>Group A</u>	
B.E.(Hons.)	
Chemical	67( 11)
Computer Science	86(09)
Electrical & Electronics	86(13)
Electronics & Instrumentation	87(16)
Mechanical	80(2)
	<hr/>
	<b>406(51)</b>
	<hr/>
<u>Group B</u>	
M.Sc.(Hons.)	
Biological Sciences	31(05)
Chemistry	38(08)
Economics	48(04)
Mathematics	44(04)
Physics	37(03)
	<hr/>
	<b>198(24)</b>
	<hr/>
<u>Group C</u>	
M.Sc.(Tech.)	
Information Systems	-
	<hr/>
<b>Total :</b>	<hr/>
	<b>604(75)</b>
	<hr/>

**2. Higher Degree Programmes :**

M.E.

Biotechnology	07(05)
Chemical Engineering	09(05)
Design Engineering	11(01)
Microelectronics	11(02)
Embedded Systems	13(02)
Software Systems	09(02)
<b>Total</b>	<b>60(17)</b>

**3. Doctoral Programmes :**

Ph.D. – Full Time	19(10)
Ph.D. – Part Time	05(03)

**SUMMARY**

	II Semester 2012-2013	I Semester 2013-2014
<b>On-Campus Programmes</b>		
Integrated First Degree Programmes	-	604(75)
Higher Degree Programmes	-	60(17)
<b>Total</b>	-	664(92)
<b>Doctoral Programmes</b>		
Ph.D. Full Time	08(03)	19(10)
Ph.D. Part Time	-	05(03)
<b>GRAND TOTAL</b>	08(03)	688(105)

Annexure 'B2-3'  
(1 Page)  
Ref. AR 2013, Page No. 1

**STATEMENT SHOWING THE NUMBER OF CANDIDATES WHO HAVE BEEN PERMITTED IN THE ACADEMIC YEAR 2013-2014 TO PURSUE VARIOUS DUAL DEGREE PROGRAMMES UNDER VARIOUS PRIORITIES**

**FIRST PRIORITY (Dual Degree)**

(From Group 'B' to Group 'A' Programmes) & A to B Programmes

Programmes* From To	A1	A3	A4	A7	A8	B1	B4	B5	Total
B1	8	9	6	7	4				34
B2	6	8	7	5	5				31
B3	5	8	3	8	10				34
B4	1	6	12	11	7				37
B5	3	4	7	4	9		1		28
A3								1	1
A4		1		1		1		1	4
A7							1		1
Total	23	36	35	36	35	1	2	2	170

**OTHER PRIORITIES (Transfer)**

Programmes* From To	A1	A3	A4	A7	A8	B1	B2	B3	B4	B5	Total
A3				2							2
B2									1		1
B3				1							1
B5		1		1					1		3
Total		1		4					2		7

**\*Legend:**

A1: B.E.(Hons.) Chemical,

A2: B.E.(Hons.) Civil,

A3: B.E.(Hons.) Electrical &  
Electronics,

A4: B.E.(Hons.) Mechanical,

A5: B.Pharm.(Hons.),

A7: B.E.(Hons.) Computer Science,

A8: B.E.(Hons.) Electronics and  
Instrumentation,

AA: B.E.(Hons.) Electronics &  
Communication,

AB: B.E.(Hons.) Manufacturing,

B1: M.Sc.(Hons.) Bio. Sciences,

B2: M.Sc.(Hons.) Chemistry,

B3: M.Sc.(Hons.) Economics,

B4: M.Sc.(Hons.) Mathematics,

B5: M.Sc.(Hons.) Physics,

C2: M.Sc.(Tech.) General Studies,

C6: M.Sc.(Tech.) Information  
Systems,

C7: M.Sc.(Tech.) Finance.

Annexure `B2-4'  
(3 Pages)  
Ref. AR 2013, Page No. B2-6

## NUMBER OF STUDENTS REGISTERED

### Second Semester 2012-2013

Programme	Year of Admission						Total
	2007	2008	2009	2010	2011	2012	
<i>A. Integrated First Degree Programmes</i>							
<b>B.E. (Hons)</b>							
Chemical	0	2(0)	53(13)	57(12)	53(8)	53(13)	218(46)
EEE	1(0)	2(0)	80(11)	79(17)	79(12)	80(11)	321(51)
Mechanical			76(4)	78(6)	79(0)	78(1)	311(11)
Computer Science	2(0)	2(0)	86(16)	81(22)	82(10)	78(14)	331(62)
Electronics & Instrumentation	1(0)	1(0)	74(17)	74(16)	79(14)	78(13)	307(60)
<b>M.Sc. (Hons)</b>							
Biological Science		33(9)	33(11)	38(7)	33(11)	35(13)	172(51)
Chemistry	1(0)	21(03)	25(4)	30(2)	34(6)	33(9)	144(24)
Economics		43(04)	42(13)	43(11)	40(9)	35(8)	203(45)
Mathematics	2(0)	37(09)	34(10)	36(3)	41(10)	35(6)	185(38)
Physics		25(03)	31(6)	32(4)	36(7)	33(3)	157(23)
<b>M.Sc. (Tech)</b>							
Information Systems			50(13)	48(11)	49(13)	44(10)	191(47)
<b>Total</b>	<b>7(0)</b>	<b>166(28)</b>	<b>584(118)</b>	<b>596(111)</b>	<b>605(100)</b>	<b>583(101)</b>	<b>2540(458)</b>

### *B. Higher Degree Programmes*

Programme	Year of Admission					Total
	2009	2010	2011	2012		
<b>M.E.</b>						
Biotechnology			10(5)	12(9)		22(14)
Design Engg.		2(0)	8(0)	10(0)		20(0)
Embedded System		1(0)	12(2)	8(1)		21(3)
Software Systems		2(0)	9(1)	9(2)		20(3)
Chemical Engg.			6(1)	11(4)		17(5)
Microelectronics			10(3)	8(2)		18(5)
<b>Total</b>		<b>5(0)</b>	<b>55(12)</b>	<b>58(18)</b>		<b>118(30)</b>
<b>Grand Total</b>						<b>2658(488)</b>

**First Semester 2013-2014**

Programme	Year of Admission							Total
	2007	2008	2009	2010	2011	2012	2013	
<b>A. Integrated First Degree Programmes</b>								
<b>B.E.(Hons.)</b>								
Chemical		1(0)	1(1)	57(12)	53(8)	53(13)	66(11)	231(45)
EEE	1(0)		8(0)	79(17)	79(12)	79(11)	84(13)	330(53)
Mechanical				75(6)	79(0)	78(1)	80(2)	312(9)
Computer Science	1(0)	2(0)	7(0)	83(23)	81(10)	82(15)	86(9)	342(57)
Electronics & Instrumentation	1(0)	1(0)	4(0)	74(16)	79(14)	78(13)	84(16)	321(59)
<b>M.Sc. (Hons)</b>								
Biological Science		4(0)	33(11)	38(7)	33(11)	35(13)	31(5)	174(47)
Chemistry		3(0)	25(4)	30(2)	34(6)	32(9)	38(8)	162(29)
Economics		2(0)	43(13)	43(11)	40(9)	34(7)	47(4)	209(44)
Mathematics	1(0)	7(0)	34(10)	36(3)	40(10)	37(6)	44(4)	199(33)
Physics		1(0)	30(5)	32(4)	36(7)	30(3)	37(3)	166(22)
<b>M.Sc. (Tech)</b>								
Information Systems			2(0)	47(11)	49(13)	44(10)	-	142(34)
<b>Total</b>	<b>4(0)</b>	<b>21(0)</b>	<b>187(44)</b>	<b>594(112)</b>	<b>603(100)</b>	<b>582(101)</b>	<b>597(75)</b>	<b>2588(432)</b>

**B. Higher Degree Programmes**

Programme	Year of Admission				Total
	2009	2012	2013		
<b>M.E.</b>					
Biotechnology		11(8)	7(5)		18(13)
Design Engg.	1(0)	10(0)	10(1)		21(1)
Embedded System		8(1)	13(2)		21(3)
Software Systems	1(1)	9(2)	8(1)		18(4)
Chemical Engg.		11(4)	9(5)		20(9)
MicroElectronics		8(2)	10(2)		18(4)
<b>Total</b>	<b>2(1)</b>	<b>57(17)</b>	<b>57(16)</b>		<b>116(34)</b>

**C. PhD Programmes**

PhD Programmes	Year of Admission								Total
	2005	2007	2008	2009	2010	2011	2012	2013	
II Sem 12-13	1(0)	4(1)	7(1)	10(4)	26(12)	20(9)	20(9)		88(36)
I Sem 13-14	1(0)	3(1)	6(1)	9(4)	24(11)	20(10)	17(7)	26(14)	106(48)
<b>Grand Total</b>	<b>2(0)</b>	<b>7(2)</b>	<b>13(2)</b>	<b>19(8)</b>	<b>50(23)</b>	<b>40(19)</b>	<b>37(16)</b>	<b>26(14)</b>	<b>194(84)</b>

**Summer Term 2012-2013**

Programme	Year of Admission		
	2010	2011	Total
<i>A. Integrated First Degree Programmes</i>			
<b>B.E. (Hons)</b>			
Chemical		52(8)	52(8)
EEE	1(0)	78(12)	79(12)
Mechanical	1(0)	79(0)	80(0)
Computer Science	2(2)	79(9)	81(11)
Electronics & Instrumentation	2(1)	79(14)	81(15)
<b>M.Sc. (Hons)</b>			
Biological Science		33(11)	33(11)
Chemistry		32(6)	32(6)
Economics	1(0)	40(9)	41(9)
Mathematics		39(9)	39(9)
Physics		36(7)	36(7)
<b>M.Sc. (Tech)</b>			
Information Systems	2(1)	50(13)	52(14)
<b>Total</b>	<b>9(4)</b>	<b>597(98)</b>	<b>606(102)</b>



Annexure `B2-5'

(2 Pages)

Ref. AR 2013, Page No. B2-6

**STATEMENT OF DEGREES AWARDED**

Degrees	No. of degrees	
	72 <sup>nd</sup> Award 21.12.12, 2.3.13, 4.3.13	73 <sup>rd</sup> Award 13.7.13, 15.7.13
<b>(i) Integrated First Degree</b>		
<b>B.E.(Hons.)</b>		
Chemical	1(1)	3(0)
Chemical (with Practice School)	7(0)	58(13)
Electrical and Electronics		9(1)
Electrical and Electronics (with Practice School)	4(0)	106(19)
Mechanical	2(0)	6(0)
Mechanical (with Practice School)	12(2)	96(7)
Computer Science		8(2)
Computer Science (with Practice School)	8(0)	105(21)
Electronics and Instrumentation		7(0)
Electronics and Instrumentation (with Practice School)	5(0)	95(24)
<b>M.Sc.(Hons.)</b>		
Biological Sciences		9(1)
Biological Sciences (with Practice School)	2(1)	20(8)
Chemistry		7(0)
Chemistry (with Practice School)	1(0)	12(3)
Economics	1(0)	13(0)
Economics (with Practice School)	2(0)	28(4)
Mathematics		7(1)
Mathematics (with Practice School)	1(0)	24(8)
Physics		6(1)
Physics (with Practice School)	1(0)	19(3)
<b>M.Sc.(Tech.)</b>		
Information Systems (with Practice School)	5(0)	48(13)
<b>Sub Total</b>	<b>52(4)</b>	<b>686(129)</b>

Degrees	No. of degrees	No. of degrees
	72 <sup>nd</sup> Award 21.12.12, 2.3.13, 4.3.13	73 <sup>rd</sup> Award 13.7.13, 15.7.13
<b>(ii) Higher Degree</b>		
<b>M.E.</b>		
Chemical Engineering	2(1)	1(0)
Software Systems	2(0)	2(0)
Microelectronics		2(0)
Biotechnology	5(2)	7(3)
Embedded Systems	1(0)	4(0)
Design Engineering	1(0)	3(0)
Chemical Engineering(with Practice School)		5(1)
Software Systems (with Practice School)	6(2)	9(1)
Microelectronics(with Practice School)		8(3)
Biotechnology (with Practice School)	4(0)	4(3)
Embedded Systems (with Practice School)	6(1)	9(2)
Design Engineering (with Practice School)	5(0)	7(0)
	<b>Sub Total</b>	
	32(6)	61(13)
PHD	3(0)	2(0)
	<b>Total</b>	
	87(10)	749(142)

### SUMMARY

Award	72 <sup>th</sup> Award	73 <sup>th</sup> Award	Total
Integrated First Degree	52(4)	686(129)	738(133)
Higher Degree	32(6)	61(13)	93(19)
PHD	3(0)	2(0)	5(0)
<b>Total</b>	<b>87(10)</b>	<b>749(142)</b>	<b>836(152)</b>

**Note:** The numbers in brackets indicate number of female students.

Annexure 'B2-6'  
(1 Pages)  
Ref. AR 2013, Page No.B2-7

### 74<sup>th</sup> AWARD OF DEGREES TO BE APPROVED BY THE 67<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS

(No. in brackets indicates no. of female students)

Programme	No. of Degrees	Distinction	I	II
B.E.(Hons.)(Chemical)	1( 0)	0	0	1
B.E.(Hons.)(Chemical)(with Practice School)	7( 1)	0	1	6
B.E.(Hons.)(Electrical and Electronics)(with Practice School)	3( 0)	0	0	3
B.E.(Hons.)(Mechanical)	3( 0)	0	1	2
B.E.(Hons.)(Mechanical)(with Practice School)	6( 0)	0	1	5
B.E.(Hons.)(Computer Science)	2( 0)	0	1	1
B.E.(Hons.)(Computer Science)(with Practice School)	5( 0)	0	2	3
B.E.(Hons.)(Electronics and Instrumentation)(with Practice School)	5( 1)	0	3	2
M.Sc.(Hons.)(Biological Sciences)	1( 0)	0	0	1
M.Sc.(Hons.)(Chemistry)(with Practice School)	2( 0)	0	0	2
M.Sc.(Hons.)(Economics)(with Practice School)	1( 0)	0	0	1
M.Sc.(Hons.)(Mathematics)	4( 0)	0	1	3
M.Sc.(Hons.)(Mathematics)(with Practice School)	1( 0)	0	0	1
M.Sc.(Tech.)(Information Systems)	3( 0)	0	0	3
M.Sc.(Tech.)(Information Systems)(with Practice School)	1( 0)	0	0	1
<b>Sub-Total</b>	<b>45( 2)</b>	<b>0</b>	<b>10</b>	<b>35</b>
M.E.(Biotechnology)	1( 1)			
<b>Sub-Total</b>	<b>1( 1)</b>			
Ph.D.	8( 1)			
<b>TOTAL</b>	<b>54( 4)</b>			

Note: Numbers in brackets indicate total females

*Annexure `B2-7`  
(5 Pages)  
Ref. AR 2013, Page No.B2-7*

## LIST OF ORGANIZATIONS WHICH CONDUCTED CAMPUS INTERVIEWS

### Second Semester 2012-2013

S.No.	Name of Organization	Number of Students		Discipline
		Interviewed	Selected	
1	AMAZON	47	5	CS/ IS
2	ARROW DEVICES	34	6	EEE/ENI
3	BITMAPPER(MECHATRONICS)	32	1	EEE/ENI
4	CEAT	18	4	EEE/MECH
5	CISCO	88	8	CS/IS/EEE/ENI/M.E EMB/ M.E SS
6	D.E SHAW	60	1	All B.E Disciplines
7	DELL R & D	10	0	M.E EMB/ M.E SS
8	DELOITTE	48	5	CS/IS/EEE/ENI
9	EMERSON NETWORKS	65	5	EEE/ENI/MECH
10	EPIC	30	8	CS/IS
11	EXPICIENT	85	5	All B.E Disciplines
12	FIAT	50	2	EEE/ENI/MECH
13	FMC	36	2	MECH
14	FUTURE'S FIRST	4	1	All B.E Disciplines
15	GHARPAY MONEY TRANSFER SERVICES	20	1	All B.E Disciplines
16	GROUPON	71	1	CS/IS/EEE/ENI
17	HIKEZEE	32	0	All Disciplines
18	IFB AUTOMOTIVE	28	3	MECH/M.E DESIGN
19	INNOMATION	29	4	EEE/MECH
20	INTERNATIONAL SAFETY SYSTEMS	30	2	CHEM
21	INTUIT	36	7	CS/IS
22	IMMENZA SEMICONDUCTORS	45	1	CS/IS/EEE/ENI

S.No.	Name of Organization	Number of Students		Discipline
		Interviewed	Selected	
23	JP MORGAN INVESTMENT BANKING	30	2	All B.E Disciplines
24	KNOLSCAPE	26	2	CS/IS/EEE/ENI
25	LATENT VIEW ANALYTICS	89	22	All B.E Disciplines
26	MARVELL SEMICONDUCTORS	10	0	M.E EMB/M.E SS
27	MICROSOFT IDC	27	1	CS/IS
28	MINDA GROUP	5	0	M.E Design
29	MORGAN STANLEY	50	3	All Disciplines
30	MRF	42	0	EEE/ENI/MECH
31	MUSIGMA	79	14	All B.E Disciplines
32	ORACLE INDIA	150	33	All B.E Disciplines
33	POCKET GEMS	28	0	CS/IS
34	POLARIS FT	12	6	CS/IS
35	QUALCOMM	35	1	EEE/ENI/M.E EMB
36	RAMBUS CHIP TECHNOLOGIES	20	1	EEE/ENI
37	RED BRICK LANE	14	1	CS/IS/EEE/ENI
38	REFLEXIS	44	5	All B.E Disciplines
39	SAAVN	34	0	CS/IS
40	SABRE HOLDINGS	105	4	All B.E Disciplines
41	SANKALP SEMICONDUCTORS	15	4	EEE/ENI
42	SEARCE	97	4	All B.E Disciplines
43	SHAHI EXPORTS	10	3	CHEM/MECH
44	SOKRATI	38	0	All B.E Disciplines
45	TCS ANALYTICS	26	16	All B.E Disciplines
46	TEACH FOR INDIA	14	0	CS/IS/EEE/ENI
47	TEGA INDUSTRIES	12	0	EEE/ENI
48	TEJAS NETWORKS	66	6	CS/IS/EEE/ENI/M.E EMB/ M.E SS

S.No.	Name of Organization	Number of Students		Discipline
		Interviewed	Selected	
49	THOROGOOD ASSOCIATES	69	2	All B.E Disciplines
50	TRUE SPARROW SYSTEMS (FAB)	59	3	CS/IS/EEE/ENI
51	VIRTUSA	54	10	CS/IS/EEE/ENI
52	WELLS FARGO	90	10	All B.E Disciplines
53	WALMART	26	1	CS/IS
54	ZS ASSOCIATES	105	20	All B.E Disciplines

### Summary

Total No. of companies:	54
Total No. of students interviewed:	2379
Total No. of appointments offered:	246

### **Legend:**

BT: Biotechnology, CE: Civil, CHE: Chemical, CM: Communication Engineering, CS: Computer Science, DE: Design Engineering, EEE: Electrical & Electronics, ET: Engineering Technology, E&I: Electronics & Instrumentation, ECON: Economics, FIN: Finance, GS: General Studies, IS: Information System, MANUF: Manufacturing Systems Engineering, MATH: Mathematics, MECH: Mechanical, MI: Microelectronics, MMS: Master of Management Studies, PHARM: Pharmacy, SS: Software Systems.

### **First Semester 2013-2014**

S.No.	Name of Organization	Number of Students		Discipline
		Interviewed	Selected	
1	ALFA LAVAL	9	0	
2	AMAZON	62	3	CS/IS/M.E SS
3	ARISTA NETWORKS	49	1	CS/IS/EEE/ENI
4	Belzabar Software Design India	18	0	CS/IS/ENI/EEE/M.E SS
5	CAPITAL ONE	59	5	All B.E Disciplines
6	CISCO	79	5	CS/IS/EEE/ENI/M.E EMB/M.E SS
7	D.E SHAW	54	2	All Disciplines
8	DERRICK PETROLEUM	37	0	MECH
9	DIRECT I	75	2	All Disciplines
10	DOW CHEMICALS	16	1	MECH/CHEM

S.No.	Name of Organization	Number of Students		Discipline
		Interviewed	Selected	
11	EBAY / PAYPAL	61	5	CS/IS/ENI/M.E SS
12	EDUPRISTINE	54	1	All B.E Disciplines + M.E EMB
13	EPIC	48	2	CS/IS/M.E SS
14	FINISAR, MALAYSIA	22	1	CS/IS
15	FIORANO	27	2	CS/IS/ENI/EEE/M.E SS
16	FLIPKART	40	0	CS/IS/EEE/ENI/M.E EMB/M.E SS
17	FMC TECHNOLOGIES	15	0	MECH
18	GE - INDIA	4	1	IS/M.E DESIGN
19	GOOGLE	59	0	CS/IS/M.E SS
20	GROUPON	35	2	CS/IS/M.E SS
21	HONDA - TWO WHEELERS	15	1	MECH
22	I RUNWAY	18	1	CS/IS/EEE/ENI
23	INFORMATICA	30	1	CS/IS/M.E SS
24	INFOSYS	42	36	All Disciplines
25	ITC	51	0	EEE/ENI/MECH
26	L & T	30	9	MECH
27	MATHWORKS	2	0	M.E EMB/M.E SS/M.E MICRO
28	MORGAN STANLEY	100	1	All Disciplines
29	MORPHING MACHINES	29	2	All B.E Disciplines + M.E EMB/ M.E SS/ M.E MICRO
30	Musigma	65	9	All B.E Disciplines + M.E EMB/ M.E SS
31	NAGARRO SOFTWARE	38	4	All B.E Disciplines
32	NATIONAL INSTRUMENTS	60	2	EEE/ENI/MECH
33	NVIDIA	68	2	EEE/ENI/M.E EMB
34	ORACLE	93	25	All B.E Disciplines + M.E EMB/ M.E SS
35	ORVITO	2	1	CS/IS

S.No.	Name of Organization	Number of Students		Discipline
		Interviewed	Selected	
36	PERSISTANT SYSTEMS	45	3	CS/IS
37	PHAMAX	1	1	CS/IS/EEE/ENI
38	POKARNO	3	0	EEE/MECH/CHEM
39	POLARIS FT	27	6	CS/IS/EEE/ENI
40	REDPINE	5	1	EEE/ENI/M.E EMB/ M.E MICRO
41	RELIANCE INDUSTRIES	9	5	MECH
42	SABRE HOLDINGS	38	2	All B.E Disciplines
43	SEARCE	95	1	All B.E Disciplines
44	SHELL	24	2	MECH/CHEM/M.E DESIGN/M.E CHEM
45	SKF	8	1	MECH/CHEM
46	TATA MOTORS	30	6	EEE/EN/MECH
47	TCE	0	0	EEE/ENI/MECH/M.E DESIGN
48	TESCO	32	6	CS/IS/EEE/ENI
49	Virtusa Consulting Services Pvt Ltd	24	10	CS/IS/ENI/EEE/MECH
50	ZS ASSOCIATES	102	15	All B.E Disciplines

### Summary

Total No. of companies:	50
Total No. of students interviewed:	1909
Total No. of appointments offered:	186

### Legend:

BT: Biotechnology, CE: Civil, CHE: Chemical, CM: Communication Engineering, CS: Computer Science, DE: Design Engineering, EEE: Electrical & Electronics, ET: Engineering Technology, E&I: Electronics & Instrumentation, ECON: Economics, FIN: Finance, GS: General Studies, IS: Information System, MANUF: Manufacturing Systems Engineering, MATH: Mathematics, MECH: Mechanical, MI: Microelectronics, MMS: Master of Management Studies, PHARM: Pharmacy, SS: Software Systems.



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## BITS PILANI – HYDERABAD CAMPUS

### B3.1 SENIOR OFFICERS AND APPOINTMENTS

**(a) Senior Officers**

- a. Prof. V S Rao, Director
- b. Prof. M B Srinivas, Dean - Administration
- c. Prof. Suman Kapur, Senior Professor, Dean, International Programmes and Collaborations Division (University Wide)
- d. Dr. KVG Chandrasekhar, Assistant Dean, Practice School Division

**(b) Professor-in-charge**

- a. Prof Srinivasa Prakash Regalla for Faculty Affairs
- b. Prof. Souri Banerjee for International Programmes and Collaborations Division
- c. Prof. P. Yogeeswari, for Sponsored Research and Consulting Division
- d. Prof. Vidya Rajesh for Academic Research Division

**(c) New appointments**

During the year, Lt Col Anand was appointed as Deputy Registrar for Hyderabad campus. The names and designations of senior officers of Hyderabad campus are given in **Annexure 1** (Part B3).

### B3.2 ADMISSIONS

The number of students admitted in each of the semesters is given below.

	Integrated First Degree Programmes	Higher Degree Programmes	Integrated Higher Degree Programme	Doctoral Programmes (PhD-Full-time)	Doctoral Programmes (PhD-Part-time)	Total
Second Semester 2012-2013	--	--	--	20	--	20
First Semester 2013-2014	693	61	10	14	21	799
<b>Grand Total</b>						<b>819</b>

The programme-wise details are given in **Annexure 2** (Part B1).

### B3.3 DUAL DEGREE AND TRANSFERS

During the Year 2013, a total no of 155 (149+6) students were permitted to pursue concurrently two first degrees under the Dual Degree scheme as per details given in **Annexure 2** (Part B1).

**TRANSFERS:**

During the Year 2013, a total no of 17 (8+9) students were permitted to transfer from the initial allotment of First Degree programme to the other programmes of First Degree to pursue under the Transfers scheme as per details given **Annexure 2** (Part B1).

**VERTICAL TRANSFERS:**

During the year 2013, 3 students (Three students: one from First Degree & two from Higher Degree) were permitted to vertically transfer to Ph.D. Programme.

### B3.4 ACADEMIC CALENDAR

The Academic year of the Institute is divided into two semesters and a summer term.

	Starting Date	Ending Date	No of Instruction Days (Excluding Examination Days)
Second semester 2012-2013	07.01.2013	14.05.2013	89
First Semester 2013-2014	02.08.2013	14.12.2013	95
Summer Term 2012-2013	22.05.2013	16.07.2013	49

### B3.5 COURSES OFFERED

The number of courses, offered during the year 2013 are as follows:

	Number of Courses Offered
Second semester 2012-2013	259
First Semester 2013-2014	403
Summer Term 2012-2013	01

During the year the following new courses are added

Second semester 2012-2013	61
First Semester 2013-2014	116

The list of new courses added is attached as a separate **Annexure 3**(Part B3).

### B3.6 REGISTRATION OF STUDENTS

The registration processes for both the semesters was completed on the first day of each semester.

	Number of students registered
Second Semester 2012-2013	2922
First Semester 2013-2014	3142
Summer Term 2012	634

Details of Registration of students for the First Semester 2012-2013 are given in **Annexure 4** (Part B3).

### B3.7 ACADEMIC AND PROFESSIONAL COUNSELLING

There were 56 students under the purview of the Academic Counselling Board (ACB) at the beginning of the First Semester 2013 – 2014. At the end of First Semester 2013 – 2014, 35 students who have fulfilled the minimum academic requirements as per the Academic Regulations and the stipulations laid down by the ACB were declared outside the purview of ACB. 34 new cases came under the purview of ACB at the end of First Semester 2013-2014. The total number of students who are under the purview of ACB at the beginning of Second Semester 2013-2014 is 55.

It further monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of On-campus students under its purview during the year is given below:

		II Semester 2012-13	I Semester 2013-14
1.	Total number of students under the purview of ACB at the beginning of the semester	50	56
2.	No. of students declared out of its purview at the end of the semester	24	35
3.	No. of students who left/transfer the Institute during the semester	0	0
4.	No. of new students who came under the purview of ACB at the end of the semester	30	34
5.	Total No. of students under the purview of ACB during the next semester	56	55

### B3.8 AWARD OF DEGREES

Convocation was conducted on 21.07.2012, Chief Guest Dr (Smt) D.Purandeswari, Hon'ble Minister of State for commerce and Industry, Pro Chancellor Smt Shobana Bhartiya (BOG) Smt Manjushree Khaitan and the Vice Chancellor Dr B N Jain have participated in the Convocation of the campus for award of various degrees (First Degree, Higher Degree) to 613 students who have qualified in second Semester 2012-13.

S.No.	Name and ID No	Gender	CGPA Obtained	Position Obtained	Type of Medal to be awarded
1	DIVYA RAVI ID No. 2009A7PS009H	Female	9.84	FIRST	GOLD
2	CHETLUR RAVI VISHNU VARDHAN ID No 2009AAPS013H	Male	9.82	SECOND	SILVER
3	CHALLA SAMYUKTHA ID No. 2009AATS008H	Female	9.71	THIRD	BRONZE

During the year, a total of 613 students graduated and the details are as follows:

S. No	Programmes	B.E. (Hons.)	M.Sc. (Hons.)	M.Sc. (Tech.)	H.D.	Ph.D	Total
<b>First Degrees</b>							
1	Chemical Engineering	36					36
2	Civil Engineering	41					41
3	Electrical & Electronics Engineering	74					74
4	Mechanical Engineering	56					56
5	B. Pharmacy	11					11
6	Computer Science	77					77
7	Electronics & Communication Engineering	77					77
8	Biology		25				25
9	Chemistry		19				19
10	Economics		37				37
11	Mathematics		26				26
12	Physics		33				33
13	Information Systems			49			49
<b>First Degree Sub-total</b>							561
<b>Higher Degrees</b>							
14	M.E. Computer Science				6		6
15	M.E. Biotechnology				5		5
16	M.E. Embedded Systems				11		11
17	M.E. Design				6		6
18	M.E. Structural Engineering				6		6
19	M.E. Thermal				4		4
20	M. Pharm. (with specialization in Pharmacy)				5		5
21	M. Pharm. (with specialization in Pharmaceutics)				4		4
22	M.E. Microelectronics				1		1
<b>Higher Degree Total</b>							48
23	Ph. D.					4	4
<b>Grand Total</b>		<b>371</b>	<b>139</b>	<b>49</b>	<b>48</b>	<b>4</b>	<b>613</b>

**B3.9 CAMPUS INTERVIEWS AND PLACEMENT**

Number of companies which conducted campus interviews	107
No of interviews	5440
No of offers made	461

The discipline-wise statistics and the list of organizations which conducted campus interviews during the year are given in **Annexure 5 (Part B3)**.

**B3.10 DEPARTMENT-WISE REPORT**

In the following pages, a brief summary of the main activities and achievements of different departments of the campus as on 31.12.2013 are highlighted.

**B3.10.1 Biological Sciences**

Number of faculty members

<b>Senior Professors, Professors</b>	2
<b>Associate Professors</b>	2
<b>Assistant Professors</b>	7
<b>Lecturers</b>	0
<b>Visiting Faculty</b>	0

**Head of the Department:** Ramakrishna Vadrevu

**Contact details:** [vrk@hyderabad.bits-pilani.ac.in](mailto:vrk@hyderabad.bits-pilani.ac.in); 040-66303529;

**Number of PhD Scholars:** 30

**Sponsored Research activities:**

**Ongoing projects:**

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Development of an indigenous chip for testing antibiotic sensitivity of pathogens found in human urinary tract	Prof.SumanKapur	NPMASS-DRDO	82.51	2008-2013
2.	Developing low cost POC device for detection of blood glucose levels	Prof.SumanKapur	ICMR-POC	31.44	2011-2013
3.	Molecular studies on T3 binding domain of the thyroid hormone receptors in autistic individuals	Dr. Vidya Rajesh	DST	23.74	2011-2014
4.	Characterization of the prenatal and perinatal risk factors of autism spectral disorder in Indian autistic population	Dr. Vidya Rajesh	UGC	6.51	2010-2013

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
5.	Exploring sequence and structural features of the catalytic b/x loops in TIM barrel proteins: Implications for protein engineering.	Dr.Ramakrishna Vadrevu	UGC	8.26	2011-2014
6.	Consequences of cellular crowding in struture stability and folding of a TIM barrel protein	Dr.Ramakrishna Vadrevu	DST	37.37	2012-2015
7.	Novel Molecular Mechanism Involving Adenosine and Adenosine Receptors in Acceleration of Alcohol Induced Hepatic Fibrosis	Dr.Palash Mandal	CSIR	24.07	2012-2015
8.	Indian institute of Biotechnology pvt. Ltd	Prof.SumanKapur	IIBT	6.10	2012-2013
9.	Arogya-Health care Delevering program	Prof.SumanKapur	Arogya-Health care	1.32	2012-2014
10.	Application of Micro-Environment Property Desriptor to Study Free Energy Changes in Amyloidogenic Protein Aggregation	Dr.DebashreeBan dyopadhyay	UGC-FS	5.40	2013-2015
11.	Development of Indigenous POC device micro channel / fluidic device for estimation of lipid profile in human plasma / serum	Prof.SumanKapur	NPMASS (LIPID)	46.66	2013-2015
12.	Novel Biomarker responses to validate acute toxicity of engineered nanoparticles and their physicochemical interactions in earthworm as a model bioindicator of nano (eco) toxicology.	Dr.Sankar Ganesh	DBT	14.07	2013-2015
13.	Development of a cost - effective membrane and DNA chip-based methods for detection of mutations associated with Multiple Drug Resistant-Tuberculosis	Dr.Nagamohan	DST	69.16	2013-2015

**Projects sanctioned during the year**

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Role of adipose in ethanol-induced tissue injury	Palash Mandal	DST	25.00	2013-2016
2.	Delineating the impact of plant growth promoting rhizobacteria on plant polyamine metabolism: novel insights into plant-PGPR interactions	Dr.SridevMohapatra	DST	25.00	2013-2016
3.	“Novel biomarker responses to validate acute toxicity of engineered nanoparticles and their physicochemical interactions in earthworm as a model bioindicator of nano (eco) toxicology”	Dr. P. Sankar Ganesh	DBT	14.07	2013-2016
4.	Application of Micro-Environment Property Descriptor to Study Free Energy Changes in Amyloidogenic Protein Aggregation	Dr.DebashreeBandyopadhyay	UGC-FS	5.40	2013-2015
5.	Development of Indigenous POC device micro channel / fluidic device for estimation of lipid profile in human plasma / serum	Prof.SumanKapur	NPMASS (LIPID)	46.66	2013-2015
6.	Novel Biomarker responses to validate acute toxicity of engineered nanoparticles and their physicochemical interactions in earthworm as a model bioindicator of nano (eco) toxicology.	Dr.Sankar Ganesh	DBT	14.07	2013-2015
7.	Development of a cost - effective membrane and DNA chip-based methods for detection of mutations associated with Multiple Drug Resistant-Tuberculosis	Dr.Nagamohan	DST	69.16	2013-2015

**Publications:**

1. B. Siva Prasad, G. Kamala & P. Sankar Ganesh, Efficacy of Trichoderma viride to induce disease resistance and antioxidant responses in legume Vignamungo infested by Fusarium oxysporum and Alternaria alternate, International Journal of Agricultural Science and Research, Transtellar, 2013, Vol 3 (2), 285-294.
2. S. Swaminathan, N. Khanna. Experimental dengue vaccines, pp. 135-151. In: Molecular Vaccines-From Prophylaxis to Therapy (Editor: M. Giese), Springer-Verlag, Heidelberg, 2013.

3. Mohan KN, Chaillet JR. (2013). Cell and Molecular Biology of DNMT1. In: International Review of Cytology and Molecular Biology. 306: Pp 1-42. Eds. JeonKwang. Academic Press, New York.
4. Szafranski P, Dharmadhikari AV, Brosens E, Gurha P, Kolodziejska KE, Ou Z, Dittwald P, Majewski T, Mohan KN, Chen B, Person R, Tibboel D, de Klein A, Pinner J, Chopra M, Malcolm G, Peters G, Arbuckle S, Guiang SF, Hustead VA, Jessurun J, Hirsch R, Witte DP, Maystadt I, Sebire N, Fisher R, Langston C, Sen P, Stankiewicz P. (2013) Small non-coding differentially-methylated copy-number variants, including lncRNA genes, cause a lethal lung developmental disorder. *Genome Res.* 23: 23-33.
5. SitaRamyasreeUppada and Jayati Ray Dutta, The effect of process parameters in enhancement of lipase production by co-culture of lactic acid bacteria and their mutagenesis study, *Biocatalysis and Agricultural Biotechnology*, 2, (2013), pp. 393-398.
6. Palakurti R, Sriram D, Yogeewari P, Vadrevu Ramakrishna. (2013) Multiple e-Pharmacophore Modeling Combined with High-Throughput Virtual Screening and Docking to Identify Potential Inhibitors of  $\beta$ -Secretase(BACE1), *Mol. Inf.*, 32, 385-398.
7. Shivani Gupta, Chhavi Rathi and Suman Kapur, Biologically induced self-healing concrete: A futuristic solution for crack repair, 2013, *International Journal of Applied Sciences and Biotechnology (IJASBT)*, 1(3): 85-89.
8. Rupak Kumar, Punita Manga, Shivani Gupta, Suman Kapur, Biological approaches for treating industrial effluents containing morpholine, 2013, In "Industrial and environmental biotechnology", edited by Pramanik and Patra, Studium Press LLC, USA.
9. S. Kapur, S Gupta, S Sharad, S. Shastry, Padhmavati, DV, Growing antibiotic resistance in uropathogens due to irrational use of antibiotics, 2013, *Journal of Antimicrobials*. Photon 128 166-71.
10. An automatic apparatus, kit and a method for rapid detection of urinary pathogens and susceptibility thereof to antimicrobial agents in a biological sample, Patent application No. 2783/DEL/2013.
11. C.N. Rahul, Shiva Krishna Katakam, Meerabai, Vijay Kumar, Sandhya Phadke, Vidya Rajesh, "Plasmodium vivax: C-terminal diversity in the blood stage SERA genes from Indian Isolates", *Experimental Parasitology*, 134, (2013), 82-91.
12. C.N. Rahul, Shiva Krishna Katakam, Atul P. Pawar, Meerabai, Vijay Kumar, Sandhya Phadke, Vidya Rajesh, "Genetic and structural characterization of PvSERA-4: Potential implications as therapeutic target for P.vivax malaria". *Journal of Biomolecular structure and Dynamics*, epub ahead of print: DOI:10.1080/07391102.2013.782824.
13. Madhu P. Mamidala, Anupama Polinedi, Praveen K. PTV, Rajesh N., OmSai R. Vallamkonda, Vrajesh Udani, Nidhi Singhal, Vidya Rajesh, "Prenatal, perinatal, and neonatal risk factors of Autism Spectrum Disorder: A comprehensive epidemiological assessment from India", *Research in Developmental Disabilities*, 34(9), (2013), 3004-3013.
14. Madhu P. Mamidala, Anupama Polinedi, Praveen K. PTV, Rajesh N., OmSai R. Vallamkonda, Vrajesh Udani, Nidhi Singhal, Vidya Rajesh, "Maternal hormonal interventions as a risk factor for Autism Spectrum Disorder: an epidemiological assessment from India", *Journal of Biosciences* 12/2013; 38(5):887-92.

#### Conferences attended/papers presented

1. U. SitaRamyasri and Jayati Ray Dutta: Statistical optimization of culture conditions by Response surface methodology, Artificial neural network and Genetic algorithm for synthesis of lipase from *Lactococcus lactis* – In World Congress Biotechnology, Bright International Conference, 2012, Leonia International Convention Centre, Hyderabad, India, May 4-6.
2. U. SitaRamyasri, Harshitha and Jayati Ray Dutta: Optimization of culture conditions for the production of lipase by co-culture of *Lactobacillus brevis* and *Lactococcus lactis* - In International Conferences on Advances in Chemical Engineering (ICACE, 2013), NIT, Raipur, Chhattisgarh, India, April 5-6.
3. International Conference on Biomolecular Forms and functions, 8th to 11th January, 2013, IISc, Bangalore: "Local Unfolding of protein backbone conformation at DNA recognition sites: characterization based on phi-psi map", Parva Sharma, Divya E Nivedita, Debashree Bandyopadhyay.
4. Identification of keratin residues that are crucial for filament formation", Debashree Bandyopadhyay and M.S. Madhusudhan. International Conference on Biomolecular Forms and functions, 8th to 11th January, 2013, IISc, Bangalore:



5. VenkataHarini K, Nishank Reddy, RaghavaJagadeeesh, Palash Mandal. Impact of chronic ethanol on the hormonal activity of adipose tissue, in 21st Annual conference conducted by Indian National Association for the study of Liver (INASL), March, 2013, Hyderabad.
6. RaghavaJagadeeesh, Palash Mandal, Presented poster on "Role of adenosine and adenosine receptors in acceleration of alcohol induced hepatic fibrosis" in 21st Annual conference conducted by Indian National Association for the study of Liver (INASL), March, 2013, Hyderabad.
7. Dr. Palash Mandal Attended "XXXVII All India Cell Biology Conference" on Cell Dynamics and Cell Fate, December 22-24, 2013, IISc, Bengaluru.
8. B. Siva Prasad, Ashwini Sri Hari, P. Sankar Ganesh, Development of environmental biomarkers to monitor endocrine disrupting chemicals in water and wastewater, National Conference on Sustainable Water Resources Planning, Management and Impact of Climate Change, BITS Pilani, Hyderabad Campus, 5th – 6th April, 2013, 85.
9. B. Siva Prasad, Asma Ahmed, P. Sankar Ganesh, Potential applications of enzymes derived from termite gut microflora for biochemical degradation of lignocellulosic waste and concomitant biofuel production, National Conference on Innovations in Chemical Engineering, ICE-2013, BITS Plani, Hyderabad Campus, November, 2013.
10. K. S. Venkateswaran, P. Sankar Ganesh, Occupational safety and health management skills development for the prospective entrepreneur and the professional manager, National Conference on Rethinking the Role of Humanities in Technical Education: Pedagogies and Possibilities, BITS Plani, Hyderabad Campus October, 2013.
11. Rupak Kumar and Suman Kapur, Quantitative Estimation of Morpholine by Gas Chromatography to be presented at ICE 2013 Conference held at Hyderabad from 15-16th November 2013.
12. Padmavathi D.V and Suman Kapur, "Sarcosine as a biomarker for extra-capsular prostatic disease" presented at Int. Conference on Emerging trends in Biomarker Research: Prospects and Challenges held at Hyderabad, India from 13th to 14th September 2013. (2nd best paper awarded) Blesson M. Abraham, Jasmine Helan Prasad and Suman Kapur, "A comprehensive school health program on reducing the tobacco prevalence- An interventional study", presented at International Conference on Public Health priorities held at Delhi from 10-12th September 2013.
13. Anuradha Pal, and Suman Kapur, "Insight into innate immune response :role of Asn40Asp allele of OPRM1 gene" accepted for presentation at the 15th International congress of Immunology to be held in Milan, Italy from 22nd-27th August 2013.

**Invited Talks given by BITS faculty:**

1. Dr. K. Naga Mohan has a talk at the Summer Institute of Global Health at the BITS Goa campus from 24.6.13 to 6.7.13. Seminar: Role of CNVs in common disorders.
2. Dr. Sankar Ganesh participated and presented in the discussion on analyzing water quality data, identifying & categorizing polluting industries located at Jeedimetla Industrial Area and planning the strategies to prevent illegal discharge of industrial pollutants into Hussain Sagar lake at Hyderabad Metropolitan Development Authority, 9th May 2013.
3. Anuradha Pal, Suman Kapur, Modulating cell proliferation pathways: Effect of Asn40Asp allele of OPRM1 accepted at XXXVII All India Cell Biology Conference on Cell Dynamics and Cell Fate to be held at Indian Institute of Science, Bangalore from December 22-24th, 2013.
4. Anuradha Pal, Suman Kapur, 118g polymorphism in exon-i of oprm1 gene protects against cancer: a hypothesis. Presented at EMBO-India Bioscience Young Scientist Networking Meeting (YSN) held at Bangalore, Karnataka from 7th-10th November, 2013.
5. Anuradha Pal and Suman Kapur, Insight into innate immune response: Role for Asn40Asp allele of OPRM1 gene accepted for presentation at accepted for presentation at the 15th International congress of Immunology to be held in Milan, Italy from 22nd-27th August 2013
6. Rupak Kumar and Suman Kapur, Quantitative Estimation of Morpholine by Gas Chromatography to be presented at ICE 2013 conference held at Hyderabad from 15-16th November, 2013.
7. Padmavathi D.V and Suman Kapur, "Sarcosine as a biomarker for extra-capsular prostatic disease" presented at Int. Conference on Emerging trends in Biomarker Research: Prospects and Challenges held at Hyderabad, India from 13th to 14th September 2013. (2nd best paper awarded)

8. Blesson M Abraham, Jasmine Helan Prasad and Suman Kapur, "A comprehensive school health program on reducing the tobacco prevalence- An interventional study", presented at International Conference on Public Health priorities held at Delhi from 10-12th September 2013.
9. Anuradha Pal, and Suman Kapur, "Insight into innate immune response: Role of Asn40Asp allele of OPRM1 gene" accepted for presentation at the 15th International congress of Immunology to be held in Milan, Italy from 22nd-27th August 2013.
10. Suman Kapur and Blesson Abraham, "Empowering young women in developing countries through ICT: A public health approach, an invited talk delivered at JUIT, during the International Conference on 'Empowering Women in Developing Countries through Information & Communication Technologies', held at Waknaghat, Solan , HP, India, from 1- 3 June 2013

#### **Invited talks arranged in the department:**

- Dr. V. Vijaybhaskar, Sr. Scientist, (Centre for Cellular and Molecular Biology, (CSIR), Hyderabad) delivered a lecture on 'Isolation and Characterization of Tissue / Cell type specific and Conditional Promoters from Arabidopsis thaliana, on March 20th, 2013 and
- Prof. Lazar Mathew, Ph.D. (Med), FABMS, FIMSA, FAMS, Advisor, Medical Sciences, Engineering & Technology, PSG Institute of Advanced Studies, Coimbatore) delivered a lecture on 'Microsystems for Medical Applications' on October 25th, 2013.

#### **Awards and recognitions won by faculty and students:**

- Promoted to the designation of Senior Professor at BITS (2013)

#### **QuickcheQ**

##### **A point-of-care device for measuring blood glucose sensing developed by Prof. Suman Kapur.**

The device is based on a finger prick with a micro-needle, after which red blood cells from the blood are trapped in a specially designed plug and the plasma is allowed to pass through. The end product is development of a color corresponding to plasma glucose levels. The major advancement is on ease of use without any loss in sensitivity. Additional advancement is that smaller drop volumes enables "alternate site testing" — pricking the forearms or other less sensitive areas instead of the fingertips in case of diabetic people who need to monitor plasma glucose every time before taking insulin shots --at least two or more times a day!

#### **QuickcheQ in News and Media**

Launch Pic attached from Press India Bureau plus some press release links

Shri Ghulam Nabi Azad today launched indigenously developed Diabetes screening system and test strips [pic.twitter.com/4kQ5iTIHeC](https://pic.twitter.com/4kQ5iTIHeC)

- ([https://twitter.com/PIB\\_India/status/422711018737786880](https://twitter.com/PIB_India/status/422711018737786880))
- <http://www.dailyexcelsior.com/azad-launches-indigenously-developed-diabetes-screening-system-test-strips/>
- [http://zeenews.india.com/news/health/health-news/indigenous-diabetes-testing-kit-launched\\_26103.html#](http://zeenews.india.com/news/health/health-news/indigenous-diabetes-testing-kit-launched_26103.html#)
- <http://www.thehindu.com/sci-tech/health/medicine-and-research/pursefriendly-diabetic-testing-kits-launched/article5575433.ece>
- <http://www.jagranjosh.com/current-affairs/indigenous-glucose-monitoring-device-launched-by-union-government-1389680197-1>
- Prof. S. Swaminathan was Invited to serve as a member of the Scientific Advisory Group of the Centre for Biodesign & Diagnostics, Translational Health Science and Technology Institute (THSTI), Ministry of Science & Technology, Government of India (August 2013)
- Dr. Sankar Ganesh received a grant of Rs. 7,00,000, from Indian Council of Social Science Research, to organize the "Winter Institute in Global Health" from 3rd to 12th January, 2013 at BITS Pilani, Hyderabad Campus.
- Dr. Sankar Ganesh is nominated as Member, Working Core Group for Clean Hussain Sagar Initiative. by the Metropolitan Commissioner, Hyderabad Metropolitan Development Authority (HMDA).
- Dr. Sankar Ganesh is nominated as Leader of the imperative Innovation & Entrepreneurship of Mission 2015 in June 2013.

- Dr. Sankar Ganesh received the best paper award for the publication in the International Journal of Agricultural Science and Research, Transtellar, 2013, Vol 3 (2), 285-294.
- Best poster Award for U. Ramyasri (Ph.D. student) /Dr.Jayati Ray Dutta in International Conferences on Advances in Chemical Engineering (ICACE, 2013), NIT, Raipur, Chhattisgarh, India.
- Paper presented by Padmavathi D.V (Ph.D. student) and Prof. SumanKapur, "Sarcosine as a biomarker for extra-capsular prostatic disease" was awarded the 2nd best paper at the International Conference on Emerging Trends in Biomarker Research-Prospects & Challenges, 13-14 September, Hyderabad, 2013, organized by Jawaharlal Nehru Institute of Advanced Studies (JNIAS) Biomarkers Research Society.
- Rupak Raman , Ph.D. student from working with Prof. Suman Kapur was selected to participate at the Science Conclave, 2013, Indian Institute of Information Technology, Allahabad, 8-14 December 2013.
- RajaShekar Varma, Ph.D. Student working with Prof. Ramakrishna Vadrevu was selected for participating in the School on "Advanced NMR Spectroscopy" to be held in the School of Chemistry, University of Hyderabad, from August 12-24, 2013

#### **Faculty Development, International Collaboration & Industry Immersion**

Dr. Sankar Ganesh Coordinated the workshop, Dly: Engineering the Eye, 7th – 13th July, 2013 in collaboration with MIT Media Lab, Boston, USA, L V Prasad Eye Institute, Perkins School for the Blind.

#### **Significant new equipments/experimental facility added during the year:**

Flow cytometer, Real-Time PCR, Phosphor Imaging Facility under DST-FIST facility.

#### **Departmental association/club activities:**

- Summer School on Global Health was organized between 24th June to 6th July 2013
- Highlights of the SIGH-2013: (24th June to 6th July)
  - The program was inaugurated on 24.6.13 by Prof. K. E Raman
  - 13 participants including foreign students from Albert Einstein College of Medicine, USA (AECOM)
  - 11 resource persons including faculty from BITS Pilani, Hyderabad campus, AECOM, USA, Medanata, Medicity Hospital, Health care Initiatives, Chandigarh, Helix institute of Public Health, Mumbai
  - Participants earned 3 credits towards a 12-credit Certificate Program in Global Health offered by AECOM
  - The topic of Dr Mathai's talk is " Strategy in Public Health" ( world without antibiotics, noscomial infection :a high price to pay, adult immunisation, quality in healthcare)
- "Synopsis" The Association of Biological Sciences every semester organizes weekly biology seminars. As a part of the activity, eminent scientists. Dr. V. Vijaybhaskar, Sr. Scientist, (Centre for Cellular and Molecular Biology, (CSIR), Hyderabad) delivered a lecture on 'Isolation and Characterization of Tissue / Cell type specific and Conditional Promoters from Arabidopsis thaliana, on March 20th, 2013 and Prof. Lazar Mathew, (Ph.D (Med), FABMS, FIMSA, FAMS, Advisor, Medical Sciences, Engineering & Technology, PSG Institute of Advanced Studies, Coimbatore) delivered a lecture on 'Microsystems for Medical Applications' on October 25th, 2013.
- During technical festival 'ATMOS', Synopsis has organized a paper presentation on 'Innovation through research in Biology', where thirty young undergraduate students from various Institution of India participated and some of them had presented original research work. Apart from this, events 'Hype Your Thesis' and 'Hidden Engineering' were organized.
- A Research Retreat of the Department of Biological Sciences, Synopsis – BioExplore was organized on 26th October, 2013, where Ph.D. students participated in poster presentation on their research work and faculty members of the department presented their current and future research interests.

#### **Major maintenance, renovations or new construction reports:**

Air curtain and AC addition to the Animal and Tissue culture lab

#### **Major equipments acquired during the year:**

Real Time PCR by Agilent; Refrigerated table-top centrifuge, Thermal cycler, Plant growth chamber, Orbital shaker, Fractional Collector were added through research grants to Faculty.

**B3.10.2 Chemical Engineering**

Department: Number of faculty members

Senior Professors, Professors	-
Associate Professors	-
Assistant Professors	9
Lecturers	1
Visiting Faculty	-

**Head of the Department:** Dr. Balaji Krishnamurthy**Contact Details:** balaji@hyderabad.bits-pilani.ac.in; balaji.krishb1@gmail.com**No of Research Scholars:** 2**Sponsored Research activities:**

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (in Lakhs)	Duration in Years
1	Bio fuel from lignocellulosic bio mass waste	Dr. Asma Ahmed	DST	20.00	3 years
2	Nano-scale characterization of human hair fibers by using indentation technique	Dr. Ramesh Babu Adusumalli	DST DST fast-track	23.00	3 years
3	Extractive fermentation with surfactants to enhance butanol production.	Dr. Pradeep Dhamole	Department of Biotechnology, Govt. of India	29.17	3 years
4	Development of synthetic resin product	Dr Srikanta Dinda	DST under FT scheme for young scientist	22.00	3year

**Projects sanctioned during the year**

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
	Same as above				

**Patents:**

- Process and Composition of a Catalyst/Additive for Reducing Fuel Gas Yield in Fluid Catalytic Cracking (FCC) Process, S. Dinda, P. K. Chinthala, A. Gohel, A. Yadav, S. Mandal, G. Ravichandran and A. K. Das, International Patent, (2013), Pat. No: WO 2013005225 A1.
- FCC catalyst additive and a method for its preparation, G. Ravichandran, P. K. Chinthala, T. Doshi, A. Gohel, A. Arusu, S. Mandal, A. K. Das, S. Dinda and A. Parekh, International Patent, (2013), Pat. No: WO 2013011517.
- Process and composition of a new catalyst/additive for reducing fuel gas yield in fluid catalytic cracking (FCC) process, S. Dinda, P. K. Chinthala, A. Gohel, A. Yadav, S. Mandal, G. Ravichandran and A. K. Das, Indian Patent, (2013), Pat. No: IN 2011MUM1955 A 20130111.

- FCC catalyst additive and a method for its preparation, G. Ravichandran, P. K. Chinthala, T. Doshi, A. Gohel, A. Arusu, S. Mandal, A. K. Das, S. Dinda and A. Parekh, US patent, (2013), Pat. No: US 20130023710A1.
- FCC catalyst additive and a method for its preparation, G. Ravichandran, P. K. Chinthala, T. Doshi, A. Gohel, A. Arusu, S. Mandal, A. K. Das, S. Dinda and A. Parekh, European patent, (2013), Pat. No: EP 2548644A1.

### Conferences attended/papers presented

- A paper titled "Hybrid Composites of Polypropylene: Coir and Mineral Reinforcing Agent as Fillers" accepted in 9th IUPAC International Conference on Novel Materials and Synthesis(NSM-IX)&23rd International symposium on Fine Chemistry and Functional Polymers(FCFP-XXIII) to be held from 17 to 22 October, 2013, Sahngai.

### Conferences attended

- B. Sreenivasulu, D. Gayatri, I Sreedhar, K V Raghavan, "Carbon Capture by Chemical Looping Combustion-A Critical review on Research Status and Challenges", International Conference on Chemical and Bioprocess Engineering, (ICCBPE 2013), NIT Warangal, Nov 2013.
- Gautam Jain, I. Sreedhar, "Studies on Turbulent Drag Reduction using Polymer Additives" "International Conference on Chemical and Bioprocess Engineering, (ICCBPE 2013), NIT Warangal, Nov 2013 .
- I. Sreedhar, B. Sreenivasulu, and K V Raghavan, "Greener Approaches and Challenges in Acylation of Anisole", Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON 2013), Mumbai, India, Dec 27-30, 2013.
- Yiwei Cheng, Nicholas Bouskill, Christopher G. Hubbard, Susan S. Hubbard, Jonathan B. Ajo Franklin, Li Li, Anna L. Engelbrekton, John D. Coates, and V. K. Surasani. "Understanding Microbial Reservoir Souring and Desouring Processes Using Reactive Transport Modeling". American Geophysical Union (AGU) Fall meeting 2013, San Francisco, CA, Dec. 9- 3, 2013. Abstract No. B43B-0477.
- Research Paper entitled "Extraction of ferulic acid and p-coumaric acid from alkaline hydrolysate using surfactant based aqueous two phase system" International Conference on Advances in Biotechnology and Bioinformatics, held at D. Y. Patil University, Pune, Nov. 25-27, 2013
- Research Paper entitled "Phycocyanin production from *Spirulina platensis* using light emitting diode as a source of light" International Conference on Advances in Biotechnology and Bioinformatics, held at D. Y. Patil University, Pune, Nov. 25-27, 2013

### In Peer-Reviewed International Journals

- I. Sreedhar, Manvendra Singh, K. V. Raghavan,, "Scientific Advances in Sulfuric Acid free Nitration of Toluene", Catal. Sci. & Technol., 3 (10) 2013, 2499-2508.
- I. Sreedhar, P. Srinivas, Gautam Jain, K.V. Raghavan "Polymer Induced Turbulent Drag Reduction using Pressure and Gravity Driven Methods," The Korean Journal of Chemical Engineering, (Accepted, In Press), 2013.
- V. K. Surasani, L. Li, J. B. Ajo-Franklin, C. Hubbard, S. S. Hubbard, Y. Wu, "Selective Bioclogging and Permeability Alteration by *L. mesenteroides*: a Reactive Transport Modeling Study at Reservoir Scale", Energy and Fuels 2013, 27 (11), pp 6538–6551, doi: 10.1021/ef401446f.
- Y. Wu, V. K. Surasani, L. Li, S. S. Hubbard, "Geophysical monitoring and reactive transport modeling of bioclogging processes induced by *leuconostoc mesenteroides*", Geophysics 2014, 79(1), E61–E73., doi: 10.1190/geo2013-0121.1.
- I.Sreedhar, G. Akhila, K. Harini, "Optimal Process Conditions in Zeolite Catalyzed Acylation of Anisole", Kinetics and Catalysis, (Accepted, In Press), 2013.
- Ramesh Babu Adusumalli, R. Passas, I. Sreedhar, Balaji Krishnamurthy, B. Kombaiyah, Alex Montagne, J. Michler, " Nanindentation of Bleached and Refined Pulpfibres". International Journal of Materials Engineering Innovation. 2013 (Available Online).

**In Peer-Reviewed National Journals**

- Utpat, S. S. Kinninge, P. Dhamole, P. B. (2014). Effect of periodic water addition on citric acid production in solid state fermentation. Accepted in Ind. Inst. Chemical Eng. E (DOI 10.1007/s40034-013-0025-6).
- S Dinda, Development of Solid Adsorbent for Carbon Dioxide Capture from Flue Gas, journal of Separation and Purification Technology, 2013, 109 64-71.

**Books Published/Edited during the year:**

- I. Sreedhar, K. Radhakishan and K.V. Raghavan, "Microenvironment Management in Heterogeneous Catalysis" in the book "Industrial Catalysis and Separations: Innovations for Process Intensification" CRC Press (ISBN: 9781926895963) (Pub Release- Feb 2014).
- R.B. Adusumalli, R. Passas, I Sreedhar, Balaji Krishnamurthy, B. Kombaiah, Alex Montagne. Nanoindentation of Bleached and Refined Pulp Fibres. International Journal of Materials Engineering Innovation. Under printing, July 2013.
- R.B. Adusumalli and Dr. D. Purnima. Natural Fibre Reinforced Polymer Composites for Automotive Applications. Polymer Society 6(3), Dec. 2013, 32-34.
- M. Sehgal, A. Mahajan, R.B. Adusumalli. Characterization of Vegetable oils using Gas Chromatography. Innovations in Chemical Engineering edited by S. Dinda, V. Karthik Chetan, V.K. Surasani , Nov. 2013, 74-79 (ISBN No: 978-81-7800-329-0).
- S. Burlawar, Preetam Giri, R.B. Adusumalli. Characterization of Wood Species: Teak, Neem, Rubber and Mesquite. Innovations in Chemical Engineering edited by S. Dinda, V. Karthik Chetan, V.K. Surasani, Nov. 2013, 80-84 (ISBN No: 978-81-7800-329-0).
- M. Ashish, R.B. Adusumalli. Energy from Municipal Solid Waste with Universal Input: Indian scenario. Innovations in Chemical Engineering edited by S. Dinda, V. Karthik Chetan, V.K. Surasani, Nov. 2013, 213-217 (ISBN No: 978-81-7800-329-0).
- T. Dhanunjay Singh, B.Sreenivasulu and I. Sreedhar, "A Review on Solid Oxide Fuel Cells-A Key to Noise free Power Generation," National Conference on Innovations in Chemical Engineering (ICE 2013), BITS Pilani Hyderabad Campus, November 2013 ISBN: 978-81-7800-329-0.
- Srikanta Dinda, Karthik Chethan V, Vikranth K. Surasani, Proceedings of National Conference on "Innovations in Chemical Engineering (ICE 2013)", Nov 15-16, BITS, Pilani-Hyderabad Campus, Hyderabad. ISBN: 978-81-7800-329-0.
- Srikanta Dinda, Epoxidation of Vegetable Oil, LAP LAMBERT Academic Publishing, 2013, ISBN: 978-3-659-31622-7.

**Publication in National Conferences:**

- Srikanta Dinda, Experimental Simulation of Olefin Selectivity of refinery FCC Unit Using Laboratory and Pilot Scale Units. Techno SCAPE 2013- "Separation techniques in Chemical and Petroleum Engineering", VIT University, Vellore, Tamil Nadu, 22-23 August 2013, p-99.
- Palak Puri, R. Vijay, Srikanta Dinda, Development of Bio-Based Epoxide, forwarded for ICE-2013, BITS-Pilani Hyderabad Campus, Hyderabad, India; 15-16 November, 2013, pp-107.
- Sirisha Nallakukkala1,\* Appala Naidu U2, Chandrika V1, Srikanta Dinda2, Study of Drying Characteristics of a Granular Material, ICE-2013, BITS-Pilani Hyderabad Campus, Hyderabad, India; 15-16 November, 2013, pp-175.
- Srikanta Dinda, Refinery Configuration Overview: Past, Present and Future, ICE-2013, BITS-Pilani Hyderabad Campus, Hyderabad, India; 15-16 November, 2013, pp-24.
- Srikanta Dinda, Nihit Bandaru, Radhev Paleti, Development of Epoxide Material from Vegetable Oil, ICCBPE-2013, NIT Warangal, Hyderabad, India; 16-17 November 2013, pp-70.
- Srikanta Dinda, R Vijay, Palak Puri, Epoxidation of Nahor Oil by In Situ Generated Peroxyacetic Acid, CHEMCON-2013, Mumbai India; 27-30 December 2013, pp-91.

- Appala Naidu Uttaravalli, Srikanta Dinda, Phani K. Jogi, Sirisha N, Rama Krishna M, Development of Empirical Model for the Prediction of Cement Property Based on Laboratory Data, CHEMCON-2013, Mumbai India; 27-30 December 2013, pp-204.

**Invited Talks given by BITS faculty:** NA

**Invited talks arranged in the department**

**Departmental association/club activities:**

- Organized National Conference on “Innovations in Chemical Engineering” (ICE- 2013) Nov 15-16-2013.
- Industry visit to Dr. Reddy’s, Hyderabad, Jan 2013.
- ASPEN and FLUENT workshop for students Jan 2013 to April 2013

**Major maintenance, renovations or new construction reports**

Department Labs:

- CEL -1 & CEL -2 Laboratory: Newly purchased equipments: Forced Convection, Natural Convection, reciprocating Pump, Thermal Conductivity of Liquids, Heat Transfer through Composite Wall, Drop wise and Film wise Condensation, Pool Boiling and Critical Heat Flux, Emissivity, Free and Forced Vertex

**Major equipments acquired during the year:**

- Surface Area Analyzer
- High Pressure Batch Reactor
- Muffle Furnace
- Autoclave
- Hot Air oven
- Boiling Point & Melting Point Apparatus

***B3.10.3 Chemistry***

Number of faculty members

<b>Senior Professors, Professors</b>	2
<b>Associate Professors</b>	1
<b>Assistant Professors</b>	12
<b>Lecturers</b>	-
<b>Visiting Faculty</b>	-

**Head of the Department:** Prof. K. Sumithra

**Contact details:** [sumithra@hyderabad.bits-pilani.ac.in](mailto:sumithra@hyderabad.bits-pilani.ac.in). Tel: 040 66303528

**Number of PhD Scholars:** 20

**Sponsored Research activities:** Ongoing projects:

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount in lakhs	Duration
1.	Laboratory investigation and field application toward the effective defluoridation of water using appropriately tailored sorbents	Prof.N.Rajesh	DST	26.67	2012-2015
2.	Chemically modified polymeric sorbents for the removal of precious palladium from industrial wastes	Prof.N.Rajesh	UGC	4.7	2012-2015
3.	Development of suitably customized polymers and clay based adsorbents for the effective removal of chromium from e waste	Prof.N.Rajesh	DST	42.82	2013-2016
4.	"Adsorption and freezing of heteropolymers on disordered surfaces : a model for biomimetic recognition"	Prof. K. Sumithra	DST	33.64	2011- 2014
5.	Localization of polymer chains on chemically heterogeneous surfaces"	Prof. K. Sumithra	CSIR	9	2013-2016
6.	Synthesis and Pharmacological Evaluation of Bishomo(hetero) arylpiperazines as atypical antipsychotic agents.	Dr. K V G Chandra Sekhar	UGC	6.44	2011-2014
7.	Synthesis and Biological Activity of Various Triazoles as Effective Antifungal Agents.	Dr. K V G Chandra Sekhar	DBT	19.56	2012- 2015
8.	Optical and semiconducting molecular materials based on tetrathiafulvalene, tetracyanoquinodimethane and their polymer templates	Dr. J. Subbalakshmi	DST	22.25	2010-2013 (extended till April 2014)
9.	Novel synthetic approach to p-type (Nano) Transparent Semiconducting Oxides of Delafossite type structure by soft chemistry routes and the study of their properties	Dr. R. Srinivasan	DST	21.80	2010-2013 (extended till March 2014)
10.	Synthesis of modified TosMIC & BetMIC for use as key reagents in the synthesis of boronated heterocycles	Dr. Anupam Bhattacharya	CSIR	18.10	2013-2015
11.	Investigations on synthetic and catalytic reactions of unsaturated organophosphonates with oxaziridines	Dr. Manab Chakravarty	DST-FT	19.9	2011- 2014
12.	Photocurable organic-inorganic hybrid precursors for the fabrication of metal oxide micro/nanostructures	Dr. Ramakrishnan Ganesan	DST	25.98	2013-2016



13.	Ultracold Chemistry of the early universe	Dr. Subhas Ghosal	DST	21.6	2012-2015
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**Projects sanctioned during the year 2013-2014**

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount in Lakhs	Duration
1.	Development of suitably customized polymers and clay based adsorbents for the effective removal of chromium from e waste	Prof.N.Rajesh	DST	42.82	2013-2016
2.	Localization of polymer chains on chemically heterogeneous surfaces"	Prof. K. Sumithra	CSIR	9.00	2013-2016
3.	Structure Based Rational Design and Synthesis of Mycobacterium tuberculosis inhibitors	Dr. K V G ChandraSekhar	DST	22.00	2014-2017
4.	Synthesis of modified TosMIC & BetMIC for use as key reagents in the synthesis of boronated heterocycles	Dr. Anupam Bhattacharya	CSIR	18.10	2013-2016
5.	Finding Aggregation-Induced Emission Active Materials: Design, Synthesis and Photophysical Studies of Sterically Hindered Triarylethenes and Tetraarylethenes	Dr. Manab Chakravarty	DST-SERB	40.00	Received the sanction letter
6.	"Towards metalloneurochemistry inside a niosome: a fluorescence spectroscopy approach"	Dr. Amit Nag	DST-SERB	23.00	2013-2016
7.	Photocurable organic-inorganic hybrid precursors for the fabrication of metal oxide micro/nanostructures	Dr. Ramakrishnan Ganesan	DST	25.98	2013-2016
8.	Photocatalytic NOx abatement: From Mechanism and Materials Properties to Catalytic Performance	Dr. Sounak Roy	DST	23.00	2013-2016

**Ongoing projects with faculty members as Co-investigators:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Investigation of magneto-optical effect in composite magneto-plasmonic nanostructures for sensing applications	Dr. R. Krishnan (Co-I) Dr. Balaji Gopalan (Co-I)	DST	33.00	2012-2015

**Publications:**

1. T. Vikramaditya and K. Sumithra. "Effect of substitutionally boron-doped single walled semiconducting zigzag carbon nanotubes on ammonia adsorption", *Accepted in Journal of Computational Chemistry*, December 2013.
2. T. Vikramaditya and K. Sumithra. "Effect of substitutional doping on adsorption of environmentally relevant molecules on single walled carbon nanotubes." Accepted in themed issue entitled 'Doped Nano-Materials for Energy and Electronic Applications' to be published in 'Advanced Chemistry Letters'. American Scientific Publishers (ASP), (in Press).
3. T. Vikramaditya and K. Sumithra. "New insights in the adsorption of oxygen molecules on single walled carbon nanotubes, *Computational Materials Science* 79, 656–662 (2013).
4. S. K. Kumar, N.Rajesh. "Exploring the interesting interaction between graphene oxide, Aliquat-336 (a room temperature ionic liquid) and chromium(VI) for wastewater treatment", *RSC Advances* 3 (2013) 2697-2709.
5. S. Kalidhasan, A. S.K.Kumar, Vidya Rajesh and N. Rajesh. "Enhanced adsorption of hexavalent chromium arising out of an admirable interaction between a synthetic polymer and an ionic liquid", *Chem. Eng. J.* 222 (2013) 454–463.
6. S.K.Kumar, S.S.Kakkan, N.Rajesh, A novel amine impregnated graphene oxide adsorbent for the removal of hexavalent chromium, *Chem. Eng. J.* 230 (2013) 328-337.
7. A.S.K.Kumar, S. Kalidhasan, Vidya Rajesh, N. Rajesh. "Adsorptive Demercuration by Virtue of an Appealing Interaction Involving Biopolymer Cellulose and Mercaptobenzothiazole" *Ind. Eng. Chem. Res.* 52 (2013) 11838-11849.
8. S.K.Kumar, M. Barathi, Swetha Puvvada, N. Rajesh, "Microwave assisted preparation of glycidyl methacrylate grafted cellulose adsorbent for the effective adsorption of mercury from a coal fly ash sample", *J. Environ. Chem. Eng.* 1 (2013) 1359-1367.
9. Nagesh, H.N., Suresh, N., Mahalakshmi Naidu, K., Arun, B., Sridevi, J.P., Sriram, D., Yogeeswari, P., Chandra Sekhar, K.V.G. "Synthesis and evaluation of anti-tubercular activity of 6-(4-substitutedpiperazin-1-yl) phenanthridine analogues". *Eur. J. Med. Chem.* (in press).
10. Suresh, N., Nagesh, H.N., Renuka, J., Rajput, V., Sharma, R., Khan, I.A., Chandra Sekhar, K.V.G. "Synthesis and evaluation of 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(4-(2-(4-substitutedpiperazin-1-yl)acetyl) piperazin-1-yl)quinoline-3-carboxylic acid derivatives as anti-tubercular and antibacterial agents". *Eur. J. Med. Chem.*(2014), 71, 324-332.
11. Suresh, N., Nagesh, H.N., Anil Kumar, Shirazi, A.N., Parang, K., Chandra Sekhar, K.V.G. "Synthesis of novel ciprofloxacin analogues and evaluation of their anti-proliferative effect on human cancer cell lines". *Bioorg. Med. Chem. Lett.* 2013, 23 (23), 6292-6295.
12. Nagesh, H.N., Mahalakshmi Naidu, K., Harika Rao, D., Sridevi, J.P., Sriram, D., Yogeeswari, P., Chandra Sekhar, K.V.G. "Design, synthesis and evaluation of 6-(4-(substituted-1H-1,2,3-triazol-4-yl)methyl)piperazin-1-yl) phenanthridine analogues as antimycobacterial agents" *Bioorg. Med. Chem. Lett.* 2013, 23 (24), 6805-6810.
13. Chandra Sekhar, K.V.G., Rao, V.S., Tara Sasank, T. V. N. V., Nagesh, H.N., Suresh, N, Mahalakshmi Naidu, K., Suresh, A., "Synthesis of 3,5-diarylisoxazoles under solvent-free conditions using iodobenzene diacetate". *Chin. Chem. Lett.* 2013, 24 (12), 1045 -1048.
14. Arun, B.; Jayanty, S., Raghavaiah, P. "Synthesis and studies of a novel (2-Amino, 6-nitrobenzothiazole) co-crystal" *Journal of Crystal Growth*, 2013, 380, 241-246.
15. Arun, B.; Jayanty, S. "Supramolecular helical self assemblies and large Stokes shift in 1,2-cyanophenylpiperazine and 4-piperidinopiperidine bis- substituted TCNQ fluorophores."
16. *Dyes and Pigments*, 2014, 101, 303-311.
17. Gangaram Palikonda and Manab Chakravarty "Triflic Acid Mediated Functionalization of  $\alpha$ -Hydroxyphosphonates: Route for Sulfonamide Phosphonates, *RSC Advances*, 2013, 3, 20503.
18. Pailloux, Sylvie L.; Rosario-Amorin, Daniel; Chakravarty, Manab; Camus, Jean-Michel; Smith, Karen Ann; Duesler "Synthesis and Properties of New (Phosphinoylmethyl)Pyridine N-Oxides" *Zeitschrift fuer Anorganische und Allgemeine Chemie*, 2013, 639, 1101.

19. Gangaram Palikonda and Manab Chakravarty "FeCl<sub>3</sub>-Mediated Arylation of  $\alpha$ -Hydroxyphosphonates with Unactivated Arenes: Pseudo-umpolung in Allylic Phosphonates", *European Journal of Organic Chemistry*, 2013, 944.
20. Sridevi Kona, Rama Suresh Ravi, Manab Chakravarty and Venkata N.R. Chava "Phosphine-Free Palladium-catalyzed Direct c-3 Arylation of 2 - Phenylimidazo ll,2- alpyrridine using silver(I) carboxylate", *Journal of Chemistry*, 2013, Article ID 305934.
21. Mahesh Akula, Jonnalagadda Padma Sridevi, P. Yogeewari, D. Sriram, Anupam Bhattacharya
22. New class of antitubercular compounds: synthesis and antitubercular activity of 4-substituted pyrrolo[2,3-c]quinolones. *Monatshefte für Chemie* (accepted).
23. Saman Safari Dinachali, M. S. M. Saifullah, Ramakrishnan Ganesan, Eng San Thian, and Chaobin He. "A universal scheme for patterning of oxides via thermal nanoimprint lithography", *Advanced Functional Materials*, 2013, 23, 2201–2211.
24. Je Moon Yun, Ramakrishnan Ganesan, Jae-Hak Choi and Jin-Baek Kim. "Local pH-responsive diazoketo-functionalized photoresist for multicomponent protein patterning", *ACS Applied Materials & Interfaces*, 2013, 5, 10253–10259.
25. Saman Safari Dinachali, Jarrett Dumond, M. S. M. Saifullah, K. K. Ansah-Antwi, Ramakrishnan Ganesan, Eng San Thian, Chaobin He, "Large area, facile oxide nanofabrication via step-and-flash imprint lithography of metal-organic hybrid resins", *ACS Applied Materials & Interfaces*, 2013, 5, 13113–13123.
26. Marko Gacesa, Subhas Ghosal, Jason N. Byrd, and Robin Côté, Feshbach "optimized photoassociation of ultracold 6Li87Rb molecules with short pulses", *Phys. Rev. A* 88, 063418, 2013.
27. Roy Sounak; Bakmutsky, K.; Lobo, R. F. Gorte, R.J. "Probing Lewis acid sites in Sn-Beta zeolite" *ACS Catalysis* 3,2013, 573-580.

**Conferences attended/papers presented:**

1. Oral presentation: T. Vikramaditya and K. Sumithra, "Doped Carbon nanotubes as sensors for oxygen and ammonia" International Conference on Computational Modelling of Nanostructured Materials (ICCMNM 2013). September 3-6, 2013, Frankfurt Institute for Advanced Studies (FIAS). Frankfurt am Main, Germany.
2. Oral Presentation on "Ab-initio study of pristine and doped carbon nanotube sensors" T. Vikramaditya and K. Sumithra Indo-Israel Meeting on Material Science and Nanoscience (IIMMN 2013). January 31-February 2, 2013. Centre for Nanoscience and Nanotechnology, Mahatma Gandhi University, Kottayam, Kerala.
3. Poster : T. Vikramaditya and K. Sumithra New insights for a carbon nanotube based oxygen sensor, The India-Israel Meeting on Materials Science and Nanoscience (IIMMN-2013), Mahatma Gandhi University, Kerala, India (2013).
4. Oral presentation by Dr. Jayanty Subbalakshmi in "First Annual International Conference (AIC-1) Industry- CCRS Congress [ICC] 2013, in July 13-14, 2013. At Visakhapatnam, Andhra Pradesh.
5. Dr. Jayanty Subbalakshmi participated in 7th RSC-CRSI Symposium in Chemistry, January 31, 2013, Banaras Hindu university, Varanasi, India.
6. Poster: Mr. Arun B. and Dr. Jayanty Subbalakshmi "Copious Short Interactions of N–O···H–C–S in [(TTF)(2- Amino-6-nitrobenzothiazole)<sub>2</sub>] Complex" in 15th CRSI National Symposium in Chemistry, February 1-3, 2013, Banaras Hindu university, Varanasi, India.
7. Poster Mr. Arun B. and Dr. Jayanty Subbalakshmi on "Isatin derivatives substituted tetracyanoquinodimethanes New optical molecular materials" in 19th ISCB International Conference, March 2-5, 2013, Udaipur, Rajasthan, India.
8. Poster: N.Suresh, H.N.Nagesh, K.Mahalaxmi Naidu, A. Suresh, K.V.G. Chandra Sekhar, K. Parang, Design and synthesis of 1-cyclopropyl-6-fluoro-4-oxo-7-(4-substituted piperazin-1-yl)-1, 4-dihydro quinoline-3-carboxylic acid derivatives as Antiproliferative agents. National Poster- II Symposium on Advances in Organic / Medicinal Chemistry (AOMC-2013), Krishna University, Vijayawada, 21 December, 2013.
9. Poster: N.Suresh, H.N.Nagesh, K.Mahalaxmi Naidu, Inshad Ali Khan, K.V.G. Chandra Sekhar, Design and synthesis of 1-cyclopropyl-6-fluoro-4-oxo-7-(4-substituted piperazin-1-yl)-1, 4-dihydro quinoline-3-

- carboxylic acid derivatives as Anti-tubercular agents, 2nd UK-India MedChem Congress, IICT Hyderabad, 22 – 23 March, 2013.
10. Poster: H.N. Nagesh, K. Mahalakshmi Naidu, N. Suresh, K.V.G. Chandra Sekhar, Design and synthesis of novel phenanthridine derivatives as anticancer agents, 19th ISCB International Conference (ISCBC – 2013), Mohanlal Sukhadia University Udaipur, 02 – 05 March 2013.
  11. Poster: K.Mahalakshmi Naidu, H.N. Nagesh, N.Suresh, K.V.G. Chandra Sekhar, Synthesis Of Benzisoxazolypiperazines as dopamine D2 antagonists, CTDDR 2013 : 5th International Conference on Drug Development and Orphan/Neglected Diseases, CDRI Lucknow, 26th – 28th February 2013.
  12. Poster: N.Suresh, H.N.Nagesh, K.Mahalaxmi Naidu, K.V.G. Chandra Sekhar, Design and synthesis of 1, 3-disubstituted 5-(2-(4-substituted piperazine-1-yl) acetyl) indoline-2-one derivatives as anti-cancer agents, 15th CRSI National Symposium in Chemistry, Banaras Hindu University – Varanasi, 01 - 03 February, 2013.
  13. Oral presentation : N.Rajesh, Biopolymer-Heavy metal interaction-a perspective, International Conference on Advanced Polymeric Materials, ,M.G. University, Kottayam, India, Oct 11-13, 2013.
  14. Oral presentation N.Rajesh, Biopolymers and their verstaility for heavy metal adsorption, Indian Analytical Science Congress- 2013, Goa, August 15-17, 2013.
  15. Oral presentation : N. Rajesh, Interesting aspects of heavy metal interaction with biopolymer composites for environmental remediation, International conference on Nanomaterials, Abdur Rahman University, India, Dec 5-7, 2013.
  16. Poster: M.Barathi, A.S.K.Kumar, N.Rajesh, Zirconium impregnated cellulose biopolymer for the effective defluoridation of drinking water, 7th RSC-CRSI and 15th CRSI national symposium in Chemistry, 2013, Banaras Hindu University, Feb 1-3, Varanasi, India.
  17. Poster: Shivani Sharma, N.Rajesh, Ultrasound assisted preparation of mercaptobenzothiazole-cellulose adsorbent for the adsorption of palladium, Indian Analytical Science Congress- 2013, Goa, August 15-17, 2013.
  18. Poster : Manasi, Vidya Rajesh, A.S.K. Kumar, N.Rajesh, Adsorption of cadmium and lead using a novel bacterial strain isolated from e-waste, Indian Analytical Science Congress- 2013, Goa, August 15-17, 2013.
  19. Poster: A. Nag & V. Ara Apkarian, “ Single molecule SERS by equipping molecules with antenna” in the conference "Discussion meeting on Spectroscopy and Dynamics of Molecules and Clusters 2013" held at Udaipur, Rajasthan, India in February, 2013.
  20. Poster T. Mancabelli, J. Janik, N. Mauser, A. Nag, R. Chakraborty, D. Piatkowski, R. Krahne & A. Hartschuh; poster "High Resolution Optical Characterization and Lifetime Imaging of Nanomaterials" in the conference " Light at the Nanotip: Scanning Near-field Optical Microscopy and Spectroscopy" held at Physics Center Bad Honnef (near Bonn/Cologne), Germany in August, 2013.
  21. Poster: A. Bhattacharya and Yadagiri 15th CRSI Annual Symposium in Chemistry, February 1-3, 2013, BHU-Varanasi “ Chalcone mediated synthesis of 4-aryl substituted pyrrolo-[3, 4-c] quinoline compounds”.
  22. Poster: A. Bhattacharya and Mahesh 19th ISCB International Conference, March 2-5, 2013, M.S. University, Udaipur, Rajasthan. Total synthesis of a natural anti-malarial, Aplidiopsamine A
  23. Poster: P. Gangaram and Manab Chakraborty on FeCl<sub>3</sub>-Mediated Regio- and Stereoselective Arylation of  $\alpha$ -Hydroxyphosphonates with Arenes: Synthesis of Important Phosphonates” in 19th Indian Society for chemists and biologists international conference (ISCB-2013), 2nd-5th March, 2013 at Udaipur, Rajasthan.
  24. Poster: Radhakrishnan Srinivasan and Sathish Bolloju , Optical Properties of undoped and Mg - doped Delafossite CuCrO<sub>2</sub> powders synthesized by Sol-Gel route - Accepted for publication in AIP Conference proceedings (2nd International Conference on Optoelectronic Materials and Thin Films for Advanced Technology, OMTAT 2013 , Convenor Dr. M.K.Jayaraj ).
  25. Poster: Satish Bolloju, D. Maheswaran and R.Srinivasan, Delafossite CuAlO<sub>2</sub> – A comparison between the solid state and sol-gel synthetic routes – Poster presented at 15th CRSI -National Symposium in Chemistry, Feb 1– 3, 2013, organized by Department of Chemistry, BHU, Varanasi.
  26. Poster: R. Srinivasan and D. Maheswaran, ZnO Nanowires by thermal decomposition of Zinc Acetate Dihydrate – An Analysis: presented at National Conference on Advanced Functional Materials (NCFM), Jan 21-23, 2013, organized by Department of Chemistry, VNIT Nagpur.

27. Poster: Radhakrishnan Srinivasan and Sathish Bolloju, Optical Properties of undoped and Mg-doped Delafossite CuCrO<sub>2</sub> powders synthesized by Sol-Gel route – Poster presented at 2nd International Conference on Optoelectronic Materials and Thin Films for Advanced Technology (OMTAT 2013), Jan 3-5, 2013, organized by Department of Physics, CUSAT, Cochin.
28. Sounak Roy, Participated in the CATSYMP-21 held at IICT, Hyderabad, February, 2013.

**Invited Talks given by BITS faculty:**

- N.Rajesh, Interesting aspects of interaction between biopolymers and heavy metals, UGC sponsored National Seminar organized by Dept of Chemistry, Madura College, Madurai, Feb 2013.
- K. Sumithra, "Computational modeling with Density functional theory", School of Chemical Sciences, Mahatma Gandhi University, Kottayam, Feb. 2013.
- Dr. Sounak Roy Environmental Catalysis: From Mechanism and Materials Properties SNU, Noida, September, 2013.

**Invited talks arranged in the department:**

- Prof. Ram Mohan, Full Bright Professor from Department of Chemistry, Illinois Wesleyan University, Bloomington, Illinois, USA on "Environmentally Friendly Organic Synthesis Using Bismuth(III) and Iron Compounds", 25-03-2013.
- Prof. Ram Mohan, Full Bright Professor from Department of Chemistry, Illinois Wesleyan University, Bloomington, Illinois, USA on "Better living through Green Chemistry", 25-03-2013.
- Prof. P.T. Manoharan, Indian Institute of Technology, Chennai on "ESR Spectroscopy", 13-08-2013.
- Dr. B.L.V. Prasad, Scientist, Physical Chemistry Division, from National Chemical laboratories (NCL-CSIR), Pune on "Who is Nano", 11-10-2013.

**Awards and recognitions won by faculty and students**

- Dr. Amit Nag from chemistry department was selected and travelled to Germany under the scheme "bilateral collaborative exchange programme by INSA" for 2 months in 2013.
- Dr. Subhas Ghosal from chemistry department was selected and travelled to Germany under the scheme "bilateral collaborative exchange programme by INSA" for 2 months in 2013.

**Faculty Development, International Collaboration & Industry Immersion: NIL****Significant new equipments/experimental facility added during the year:**

- "Metrohm" Ion meter equipped with fluoride ion selective electrode, procured under the DST project grant of Prof. N. Rajesh

**Departmental association/club activities:**

- Chemistry chronicles – newsletter
- Chemoformation events for ATMOS 2013
- Chemhunt for PEARL 2013
- Under the Initiation of Dr. Jayanty Subbalakshmi, Incharge- Alchemy Association was organized One day Educational tour to SHAR, Sriharikota during April 10th 2013.
- Paper presentations by students at ATMOS 2013

**Major maintenance, renovations or new construction reports: NIL****Major equipments acquired during the year: NIL**

**B3.10.4 Civil Engineering**

Number of faculty members

<b>Senior Professors, Professors</b>	2
<b>Associate Professors</b>	2
<b>Assistant Professors</b>	4
<b>Lecturers</b>	2
<b>Visiting Faculty</b>	

**Head of the Department:** Dr. Jagadeesh Anmala**Contact details:** jagadeesh@hyderabad.bits-pilani.ac.in, phone number: 040-66303545**Number of PhD Scholars:** 11**Sponsored Research activities:**

Ongoing projects:

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	Multi objective Reservoir optimization Using Swarm Intelligence Algorithms	Dr. A.Vasan	CSIR	11.17	3 Years (April 2011- March 2014)
2	Fourier Analysis and Development of Two-Dimensional Finite Element Schemes for Shallow Water Equations and Transport-related Systems	Dr. Jagadeesh Anmala	DST	11.00	3 Years (July 2012 - July 2015)
3	Multicriterion Analysis for Ranking of Various General Circulation Models to Study Water Resources of India	Prof. K Srinivasa Raju	CSIR	16.22	3 Years (November 2012 - October 2015)
4	Integrated Urban Flood Management in India: Technology-Driven Solutions	Prof. K Srinivasa Raju	ITRA	19.06	3 Years (November 2013 – October 2016)
5	Collaborating for quality teaching and research in the area of computational mechanics	Dr. Chandu Parimi	British Council	3.88	1 year

**Projects sanctioned during the year**

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	Detecting anomalies of water distribution system and its effect on the command area of Nagarjuna sagar reservoir using satellite remote sensing, SERC/ET0241/2012	Dr Rajitha K	DST	28.00	3 Years
2	DST FIST	Structural Engineering Group	DST	1 Crore	5 years

(Note: ABGST project got over during November 2013 and hence it is not reflected here (on 31.12.2013, this project is no more On Going).

**Publications:**

1. Jagadeesh Anmala, V. Kapoor (2013), Dynamics of mixing and bimolecular reaction kinetics in aquifers, *Stochastic Environmental Research and Risk Assessment*, 27(4), 1005-1020, DOI 10.1007/s00477-012-0679-5.
2. Andre Schardong, Slobodan P. Simonovic and A. Vasana, *A Multi-Objective Evolutionary Approach to Optimal Reservoir Optimization*, *Journal of Computing in Civil Engineering*, ASCE, 27(2), 139-147, 2013.
3. D.V.Morankar, K.Srinivasa Raju and D.Nagesh Kumar, Integrated Sustainable Irrigation Planning with Multiobjective Fuzzy Optimization Approach, *Water Resources Management*, Springer, Vol. 27, No.11, September 2013, pp. 3981-4004. DOI: 10.1007/s11269-013-0391-3,
4. K.Srinivasa Raju and D. Nagesh Kumar, Prioritisation of Micro-Catchments based on Morphology, *Water Management*, Proceedings of the ICE, Institution of Civil Engineers, ICE Publishing, UK, Vol. 166, No.7, July 2013, pp.367-380. DOI: 10.1680/wama.11.00076,
5. K. Srinivasa Raju and D. Nagesh Kumar, Fuzzy Data Envelopment Analysis for Performance Evaluation of an Irrigation System, *Irrigation and Drainage*, Wiley InterScience, Vol. 62, No. 2, April 2013, pp. 170-180. DOI: 10.1002/ird.1721.
6. Sandra Amarendra Kumar, Rao V R Vinayaka, Sarkar Ashoke Kumar, Road Roughness Modelling with Clustered data using ANN approach, *International Journal of Civil and Structural Engineering*, Volume 4, Issue 1, 2013, pp:20-35, ISSN: 0976-4399, Article ODI: 10.6088/ijcser.201304010003

**Conferences attended/papers presented:**

1. Prakash Mohan, M. M & Rajitha, K.Satellite Based Temperature Mapping: A Case Study of Hyderabad City During the Period 1999-2013. Proceedings of national conference on "Sustainable Water Resources Planning, Management and Impact of Climate Change" held at BITS-Pilani, Hyderabad Campus on April 5-6, 2013.
2. Rajitha K and Prakash Mohan, Urban growth and its impact on temperature changes: A case study of Hyderabad city using GIS and Remote sensing. Proceedings of 12 th International Asian Urbanization Conference held at BHU Varanasi December -28-30, 2013, pp-231.
3. Abhijeet.S.Gandage, V.R.Vinayaka Rao, M.V.N. Sivakumar, A.Vasana, M.Venu and A.B. Yaswanth, "Effect of Perlite on Thermal Conductivity of Self Compacting Concrete", *Procedia - Social and Behavioral Sciences*, ELSEVIER, Volume 104, December 2013, Pages 188–197. (2nd Conference of Transportation Research Group of India -2nd CTRG, Agra, India organized by Transportation Research Group of India (TRG)), IIT Kanpur, CRR, TRB, ASCE, 12-15 December 2013, Agra, India. (Web link: <http://www.sciencedirect.com/science/journal/18770428/104>)

4. L Ashoka Vardhan and A Vasana, "Evaluation of Penalty Function Methods for Constrained Optimization Using Particle Swarm Optimization", Proceedings of Second IEEE International Conference on Image Information Processing Organized by Jaypee University of Information Technology, Wagnaghat, Shimla, Himachal Pradesh, India, December 09-11, 213, pp. 487-492, ISBN-978-1-4673-6099-9.
5. Abhijeet S. Gandage, V. Vinayaka Ram, M. V. N. Sivakumar, A. Vasana, M. Venu and A. B. Yaswanth, "Optimization of Class C Flyash Dosage In Self Compacting Concrete For Pavement Applications", Proceedings of the International Conference on Innovations in Concrete 2013 (ICI-IWC 2013) Organized by Indian Concrete Institute at Hitex/ NAC, Hyderabad, India, October 23-26, 2013, pp. 213-226.
6. Vasana, A, Evaluation of Irrigation Systems Performance Using Multicriterion Approach, Proceedings of India Water Week (Efficient Water Management: Challenges and Opportunities), Organized by Ministry of Water Resources, Government of India, April 08-12, 2013, New Delhi, India, pp. 41.
7. Kalyan Karthik, N., Sharath Chandra, K., and A Vasana, Application of Firefly Algorithm to Optimization of Water Distribution Systems, Proceedings of National Conference on Sustainable Water Resources Planning, Management and Impact of Climate Change, Organized by Centre of Excellence in Water Resources Management, Department of Civil Engineering, BITS Pilani, Hyderabad Campus, April 05-06, 2013, Hyderabad, India, pp. 127.
8. K.Srinivasa Raju and D.Nagesh Kumar, Multicriterion Analysis for Selection of General Circulation Models for Malaprabha Catchment, Proceedings of HYDRO 2013 International, December 4-6, 2013, Chennai, India, pp.16-21.
9. K. Srinivasa Raju, Decision Making in Multicriterion Perspective: An Overview, Proceedings of National Conference of Sustainable Water Resources Development and Management, September 30th-October 1, 2013, Aurangabad, India, pp. 145-152 (Invited lecture)
10. D.V.Morankar and K.Srinivasa Raju, Integrated Irrigation Planning for Water Scarcity Regions in Fuzzy Environment, Proceedings of National Conference of Sustainable Water Resources Development and Management, September 30th-October 1, 2013, Aurangabad, India, pp. 70-76.
11. Abhijeet S. Gandage, V. R. Vinayaka Rao, Rahul Joshi, Comparative Study of Thin Section Petrographic Analysis for Normal Concrete and Self Compacting Concrete, International Conference on Advances in Science and Technology of Concrete, American Concrete Institute, India Chapter, 20-21 December 2013, Mumbai, India (Organized by) (Web Link: <http://ic-aci-mraikarmemorialinternationalconference.com>)

#### **Invited Talks given by BITS faculty:**

- Prof. P N Rao delivered a key note address on "Advances in Concrete Technology" on 15th July, 2013 for Inaugural function of ICI student's chapter at Vasavi college of Engineering, Hyderabad.
- Dr. Vasana delivered an invited lecture on "Optimization Using Differential Evolution and Firefly Algorithm" during the Workshop on "Soft Computing Tools and its Applications in Engineering (SOCTAPE-2013)" organized by Department of Civil Engineering, Government College of Engineering Aurangabad, June 05, 2013.

#### **Invited talks by Prof. KS Raju**

- Delivered Keynote speech on Decision Making In Multicriterion Perspective: An Overview, National Conference on "Sustainable Water Resources Development and Management, Department of Civil Engineering, Aurangabad, Maharashtra, September 30th - October 1, 2013
- Delivered keynote speech on Multicriterion Decision Making and Climate Modeling, National Workshop on "Impact of Climate Change on River Basin Management", Department of Civil Engineering, Aurangabad, Maharashtra, August 16-17, 2013
- Delivered Invited Lecture on Fuzzy and Decision Making, One Week TEQIP - Short Term Training Programme on Soft Computing Tools and its Applications in Engineering (SOCTAPE-2013), Government College of Engineering, Aurangabad, June 3-7, 2013.



- Delivered Invited Lecture on Fuzzy Cluster Analysis and Decision Making, One Week TEQIP - Short Term Training Programme on Analytical Techniques for Applied Research (An Interdisciplinary Program, Department of Civil and Water Management Engineering, Shri Guru Gobind Singhji Institute of Engineering and Technology, Nanded, January 21-25, 2013.

**Invited talks arranged in the department:**

- Guest lecture on PMGSY and its implementation by Prof. B P Chandra shekhar on 22.4.2013
- Technical presentation by Mr Sameer from Ultratech cement ltd on Smart materials for construction on 28.11.2013.

**Awards and recognitions won by faculty and students**

- M.Venu - Life member of Indian Institute of Bridge Engineers (IIBE), India. (LM – 2519).
- Prof. KS Raju- Associate Editor, ISH Journal of Hydraulic Engineering, Taylor & Francis, U.K

**Faculty Development, International Collaboration & Industry Immersion: NA****Significant new equipments/experimental facility added during the year:**

- Many equipment have been added for characterizing Self Compacting Concrete and one equipment for finding thermal conductivity and pendulum type road friction testing equipment have also been added in the civil engineering labs as a part of ABGST research project.

**Departmental association/club activities:**

- Guest lecture on PMGSY and its implementation by Prof. B P Chandra shekhar on 22.4.2013
- Technical presentation competition on techniques of disaster management and associated events by CEA during ATMOS 2013 during October 10-13 th, 2013.
- Technical presentation by Mr Sameer from Ultratech cement ltd on Smart materials for construction on 28.11.2013.
- Release of newsletter on GIS and soft computing applications on water resource management.

**Major maintenance, renovations or new construction reports: NIL****Major equipments acquired during the year:**

- Reaction Load Frame of capacity 200 tonnes has been added.
- Plotter (A1 size) and scanner (A3 size) were purchased for the GIS lab.

**B3.10.5 Computer Science and Information Systems**

Number of faculty members

<b>Senior Professors, Professors</b>	0
<b>Associate Professors</b>	1
<b>Assistant Professors</b>	5
<b>Lecturers</b>	8
<b>Visiting Faculty</b>	3

**Head of the Department:** Dr. R.Gururaj**Contact details:** gururaj@hyderabad.bits-pilani.ac.in 040-66303525**Number of PhD Scholars:** faculty-8+2; Regular-8; Part-time-3 Total=21**Sponsored Research activities:****Ongoing projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount Rs. Lakhs	Duration
1	Efficient Peer to Peer Overlay infrastructure for secure computing over the internet	Dr. Chittaranjan Hota	UGC	10.38	2011 - 2014
2	Automated Detection of Privacy threats in Peer to Peer NW	Dr. Chittaranjan Hota	DIT	61.95	2012 - 2015

**Projects sanctioned during the year**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount Rs. Lakhs	Duration
1	Design and Development of Digital Forensic Tools for clou IaaS	Dr G Geetha Kumari	DIT	54.96	2013-2015

**Publications:****International conferences:**

1. Aruna Malapati, N.L. Bhanu Murthy, Performance of students across assessment methods and courses using Correlation analysis, IEEE International Conference on MOOC, Innovation and Technology in Education (MITE) 2013, (to appear in IEEE explorer) Dec 20-23, 2013, Jaipur, India
2. Muthukumar Kasinathan, Lalita Bhanu Murthy Neti, Karthik Reddy Gakkidi, Aruna Malapati, "Comparative study on effectiveness of standard bug prediction approaches", 5th IBM Collaborative Academia Research Exchange (I-CARE 2013), ACM Digital Library, Oct 17-19, 2013, IIT, Delhi, New Delhi, India

3. Agrima Srivastava and G Geethakumari, "A Framework to Customize Privacy Settings of Online Social Network Users", Accepted at the IEEE International Conference on Recent Advances in Intelligent Computational Systems RAICS 2013, India
4. Digambar Powar and G Geethakumari, "A Novel aproach to detect Cloud Virtual Machines hidden using Alternate Data Streams", Accepted at the IEEE International Mutli-Conference on Automation, Computing, Communication, Control and Compressed Sensing (iMac4s) to be held on March 22-23, 2013, India.
5. A. Muthulakshmi and Dr. G.Geethakumari, "Secure Broker Inter Cloud Model for Seamless Resource Access", Accepted at the 4th International Conference on Information and Communication Systems (ICICS 2013) - 1st International workshop on Cloud Computing Applications and SEcurity (CASE-2013), Irbid, Jordan, April 23 - 25, 2013 (to appear in the ACM Digital Library and in DBLP)
6. Kayiram Kavitha, Polsani Rajashree Rao, Sreeja Tummala, Gajarla Vasavi , and Dr.R.Gururaj, "Dual Tree Data Routing Scheme for Wireless Sensor Networks", The Third International Conference on Advances in Information Technology and Mobile Computing (AIM-2013) to be held at Bengaluru, India, April 26-27, 2013
7. Sunita Bansal, and Chittaranjan Hota, Goodwill based scheduling algorithm for economy grid, 3rd IEEE International Advance Computing Conference, New Delhi, India, Feb 2013, IEEE Digital Explore.
8. KP Krishna Kumar and G Geethakumari, "Information Diffusion Model for Spread of Misinformation in Online Social Networks", at IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI-2013)
9. K P Krishna Kumar and G Geethakumari, "Modeling Semantic Attacks in Social Networks", Proceedings of the IEEE International Conference on Informatics, Electronics and Vision (ICIEV)
10. Agrima Srivastava and G Geethakumari, "Measuring Privacy Leaks in Online Social Networks", at the IEEE ICACCI-2013: International Symposium on Women in Computing and Informatics (WCI-2013)
11. Pratik Narang, Jagan Mohan Reddy and Chittaranjan Hota "Feature Selection for Optimizing Detection of P2P Botnet Traffic" at ACM Compute 2013
12. Abhishek Thakur and Chittaranjan Hota, Sustainable Wireless Internet Connectivity for Rural Areas, International Symposium on Green Networks and Distributed Systems, GNDS 2013, ICACCI 2013
13. Murali P, V Rastogi, and Chittaranjan Hota, A Virtual-force based Multicast Routing Algorithm for Mobile Ad-hoc Networks, Fifth International Conference on Ubiquitous and Future Networks 2013
14. Vikram Nunia, Bhavesh Kakadiya, Chittaranjan Hota and M Rajarajan "Adaptive Task Scheduling in Service Oriented Crowd using SLURM", International Conference on Distributed Computing and Internet Technologies (ICDCIT 2013)
15. Chittaranjan Hota, Vikram Nunia, Mario Di Francesco, Jukka K. Nurminen and A. Y. Jaaski, Enhanced Search in Unstructured Peer-to-Peer Overlay Networks, 8th International Conference on Grid and Pervasive Computing
16. Murali P and Chittaranjan Hota, Arbitration-based Reliable Distributed Mutual Exclusion for Mobile Ad-hoc Networks, 11th International Symposium on Modeling and Optimization in Mobile, Ad-hoc and Wireless Networks (WiOpt 2013)
17. Jagan Mohan, Pratik Narang, Chittaranjan Hota, Prafulla Kumar, P2P Traffic Classification for Intrusion Detection Systems, Security and Privacy Symposium 2013
18. Vijay Sridhar, Chinmay Dabral and Chittaranjan Hota, A Crowdsourcing and Data Mining-based system for Content Tagging, Security and Privacy Symposium 2013
19. Sarath Chandra G, Vikram Nunia, Abhishek Thakur and Chittaranjan Hota, Packet Anonymization: Preserving Privacy for DPI in P2P Realm, Security and Privacy Symposium 2013
20. Chittaranjan Hota, Vikram Nunia, Mario Di Francesco, Jukka K. Nurminen, and A. Y. Jaaski Enhanced Search in Unstructured Peer-to-Peer Overlay Networks, 8th International Conference on Grid and Pervasive Computing, Seoul, Korea, Lecture Notes in Computer Science, May 2013
21. Gokul Kannan S, and Chittaranjan Hota, Symposium on Information Security, Honeypot Challenges and Countermeasures, BITS-Pilani Hyderabad Campus, Hyderabad, 15-16 November 2013

22. Jagan Mohan Reddy, and Chittaranjan Hota, P2P Traffic Classification using Ensemble Learning, 5th IBM Collaborative Academia Research Exchange(I-CARE 2013), IBM, New Delhi, India, ACM Digital Library, Oct 2013.

**International Journals:**

23. Kayiram Kavitha, Dhruv Sharma, Rahul Suran and Dr.R.Gururaj, "Induced Redundancy based Lossy Data Compression Algorithm ", International Journal of Computer Applications (0975 – 8887) Volume 62– No.16, January 2013 , pp 16-21
24. Shanti swaroop moharana, rajadeepan d. Ramesh & digambar powar, "analysis of load balancers in cloud computing", International Journal of Computer Science and Engineering (IJCSE), ISSN 2278-9960, Vol. 2, Issue 2, pp. 101-108
25. Murali P, and Chittaranjan Hota, Sector Based Multicast Routing Algorithm for Mobile Ad-Hoc Networks, International Journal of Wireless & Mobile Networks(IJWMN), Vol. 5, No. 5, Oct 2013, pp. 49-63
26. K P Krishna Kumar and G Geethakumari, "A Taxonomy for Modeling and Analysis of Diffusion of (mis)information in Social Networks", Accepted for publication in the International Journal of Communication Networks and Distributed Systems, Inderscience Publishers, 2013

**Springer:**

27. K P Krishna Kumar and G Geethakumari, "Identifying Sources of Misinformation in Online Social Networks", Springer: Advances in Intelligent and Soft Computing Journal, Special Volume, Springer (in press), 2013
28. K P Krishna Kumar and G Geethakumari, "Analysis of Semantic Attacks in Online Social Networks", Springer: Communications in Computer and Information Science Series (CCIS), ISSN: 1865:0929 (in press), 2013

**Conferences attended/papers presented:**

1. Aruna Malapati; participated in IEEE International Conference on MOOC, Innovation and Technology in Education (MITE) 2013,(to appear in IEEE Xplorer) Dec 20-23,2013,Jaipur,India
2. Muthu Kumaran: participated in 5th IBM Collaborative Academia Research Exchange (I-CARE 2013), ACM Digital Library, Oct 17-19, 2013, IIT, Delhi, New Delhi, India.
3. Geetha Kumari: Participated in a workshop "A Practical Approach on Cloud Computing" conducted by CDAC, Hyderabad, during, 9th - 12th, December-2013
4. KCS Murthy: IEEE International Mutli-Conference on Automation, Computing, Communication, Control and Compressed Sensing (iMac4s), March 22-23, 2013, India
5. Geetha Kumari: participated in IEEE International Mutli-Conference on Automation, Computing, Communication, Control and Compressed Sensing (iMac4s), March 22-23, 2013, India

**Invited Talks given by BITS faculty:**

1. Invited talk on Mesh Generation at Research Promotion workshop on "Introduction to Graph and Geometric algorithms" conducted at NIT Warangal, A.P, India, 23-25th Nov 2013.
2. Talk on "Security threat analytics for large-scale Peer-to-Peer Networks" at Symposium on Information Security, Birla Institute of Technology & Science-Pilani Hyderabad Campus, Hyderabad, India, Nov 15th-16th, 2013.
3. Invited talk on "Security Issues and Challenges in a Connected World" at National E-Governance Seminar on ICT & Open Source Software: Issues and Challenges, Hidayatullah National Law University, Raipur, Chhattisgarh, India, Sept 22nd, 2013.
4. Invited talk on "P2P Security Threats and their Countermeasures" at Workshop on Cyber Security, Bharti School of Telecommunication, Technology, and Management, Indian Institute of Technology (IIT), Delhi, August 3rd-4th, 2013, India.
5. Invited talk (concept paper) on "Big-data and cyber-physical systems for smart healthcare" at India-France (CEFIPRA) workshop on challenges in overcoming complexity from big data to cyber-physical systems, Indian Institute of Technology ( IIT ), Delhi, April 4th-5th, 2013, India.
6. Invited talk on "Cyber Security Research Landscape in India" at RCUK/ DST Organized Workshop in Cyber Security Research Challenges at IIIT, Delhi, March 24th-March 26th, 2013, India.

7. Invited talk on "File systems for Cloud Computing" at Dept. of Post-graduate studies in Computer Science at Utkal University, Vani Vihar, Bhubaneswar, Odisha, March 16th, 2013.
8. Invited talk on "Security Trends, Challenges, and Solutions in Peer-to-Peer Networks" at Security and Privacy Symposium 2013 (SPS 2013), Prabhu Goel Research Centre for Computer and Internet Security, Indian Institute of Technology ( IIT ), Kanpur, Feb 28th - March 2nd, 2013, India.
9. Advances in Microprocessors at Jyotirmayi institute, Hyderabad, by Mr.KCS Murthy.

#### **Invited talks arranged in the department:**

- Prof Venkata Krishnan, Assoc Prof Univ of Illinois, Chicago, Technical talk on 10-01-2013.
- Prof. (Ms) Magda, UC Irvine, on "Game Technology", on 11-01-2013.
- Prof Jukka K Nurminen, on "Energy efficient distributed computation on Mobile", 09-02-2013.
- Mr.ES Chakravarthy, Mr.MS Reddy, TCS, talk on "Technology/Market/Future IT", 11-02-2013.
- A series of talks by Vaishali Sadaphal, Scientist, TRDDC Pune, on "Performance & capacity management in Data centers using data mining", 13,14 April-2013.

#### **Talks arranged as part the Symposium on Information Security (SIS 2013), on the theme 'Securing Networks, Devices and Applications'. 15-16 Nov 2013.**

1. Mr. B. Ganapathi Subramaniam, Chief Security Officer, Microsoft Corporation India Pvt Ltd. Title: Building Cyber Resilience.
2. Prof. H. Krishna Murthy, Chief Research Scientist, SERC, IISc. Bangalore, Title: Security in Distributed Systems.
3. Prof. Ranjan Bose, Microsoft Chair Professor, IIT Delhi, Title: Wireless Security.
4. Prof. Manoj S Gaur, MNIT Jaipur, Title: Android Malware Analysis.
5. Prof. Ponnurangam Kumaraguru, Hemant Bharat Ram Faculty Research Fellow, IIIT Delhi, Title: Security & Privacy in On-line Social media
6. Prof. Alwyn Roshan Pais, NIT Surathkal, Title: Throttling DDoS Attacks.
7. Mr. Sitaram Chamarty, Principal Consultant, TCS Innovation Labs, TCS, Hyderabad, Title: Securing the application development process with Gitolite.
8. Prof. G.P. Sahoo, Law School, Banaras Hindu University, Varanasi, Title: Cyber crime and privacy protection: legal and policing challenges in India.
9. Prof. Vijay Lakshmi, MNIT, Jaipur, Title: Browser Vulnerabilities and Attack Scenarios.
10. Mr. M. R. Muralidharan, Principal Research Scientist, IISc,Bangalore, Title: Principle and Practice of Intrusion Detection Systems.
11. Mr. Prafulla Kumar, Director, DeitY, Govt. of India, Title: Cyber Security : Govt. perspective.
12. Prof. Chittarajan Hota, BITS-Pilani Hyderabad Campus, Hyderabad, Title: Security threat analytics for largescale Peer-to-Peer networks.
13. Mr. Prasad Gorja, Principal Staff Systems, Freescale India, Title: Security challenges and approaches for an effective Unified Threat Management.
14. Mr. Krishna Nadh Manepalli, Sr. Principal Engineer, McAfee, India, Title: Nextgen Endpoint Firewall.
15. Dr. P R K Murti, Ex Professor, Dept. of Computer Science (University of Hyderabad), Title: IT (Amendment) Act, 2008 and Legal Issues of Encrypted Documents.

#### **Awards and recognitions won by faculty and students**

- N.L. Bhanu Murthy (ASTP): Received the Best Paper Award (Runner) in I-CARE 2013 (5th IBM Collaboration Academia Research exchange) for the paper titled "Comparative study on effectiveness of standard bug prediction approaches".
- Aruna Malapati (ASTP): Received the Best Paper Award (Runner) in I-CARE 2013 (5th IBM Collaboration Academia Research exchange) for the paper titled "Comparative study on effectiveness of standard bug prediction approaches".

**Faculty Development, International Collaboration & Industry Immersion**

- Chittaranjan Hota: Feb 2013 (One week): attended Intel Embedded Education and Research Summit 2013, Chandler, Arizona, UNITED STATES OF AMERICA (USA). On invitation.

**Significant new equipments/experimental facility added during the year:**

- Virtual Infrastructure HW with necessary SW for creating Virtual Environment.
- 2 LCD Projectors.
- Embedded peripherals, Zync series FPGA kits.

**Departmental association/club activities:**

- **IS Association Activities in 2013:**
  - During the Tech fest ATMOS - Conducted Brainstorming (1 hour event) and Code Jam (1 hour event). Nov-13
  - A Workshop on 'Search Engine Optimization' for all students in Jan-13.
- **CS Association Activities in 2013:**
  - Organized 5 events during ATMOS'13([www.bits-atmos.org](http://www.bits-atmos.org)):
    - a) Paper Presentation
    - b) ALGOMANIAC (an event on algorithms)
    - c) Brainstorm (an event on Software engineering)
    - d) Program-Math (a coding competition which included problems from the mathematical domain).
    - e) Code-Jam (a coding competition in association with CRUX)

All the above events had participation close to 150 each except Brainstorm (which was 25).

- Organized a workshop on "Cyber Security" which had participation of 165 students across many colleges from and outside Hyderabad.
- Two students from 2012 batch participated in DEVTHON'13(<https://www.devthon.org/>) at Hyderabad.
- Organized pre-ATMOS classes on "C-Programming" and "Data Structure and Algorithms", which were around 3 months long with healthy participation close to 100. This actually helped many non-CS guys too and we wish to continue some similar thing this semester also.
- Organized 2 coding competitions within the college (one was in association with CRUX) which had participation close to 350.(<http://www.hackerrank.com/crucocoding>).
- Conducted a "Placement talk", where seniors from 2010-2009 batch(single+dual+higher degree) including teachers participated and acted as a motivation for students across all the batches.
- 7. Organized many guest talks including "Guest lecture by Dr. Kaushik Dutta, Assistant Professor, School of Computing, NUS, Singapore on research opportunities on 13th Sept 2013 from 4 to 5pm".

**Major maintenance, renovations or new construction reports: Nil**

**Major equipments acquired during the year: Nil**

**B3.10.6 Electrical and Electronic Engineering**

Number of faculty members

<b>Senior Professors, Professors</b>	2
<b>Associate Professors</b>	0
<b>Assistant Professors</b>	4
<b>Lecturers</b>	6
<b>Visiting Faculty</b>	1
<b>Guest Faculty</b>	6

**Head of the Department:** Prof. Y.Yoganandam**Contact details:** 40 6630 3569; Email: yogi@hyderabad.bits-pilani.ac.in**Number of PhD Scholars:** Full-time PhD Scholars : 14

Faculty (PhD registered): 6; External PhD registrants : 5

**Sponsored Research activities:**

Projects sanctioned during the year

<b>Project Name</b>	<b>Principal Investigator</b>	<b>Funding Agency</b>	<b>Sanctioned Amount</b>	<b>Duration</b>
Placement of FACTS device: Interline Power Flow Controller, in Multi-machine Power System to increase the power system stability Sanctioned in September 2012	Alivelu Manga Parimi	RIG (BITS Pilani)	Rs. 2Lakhs	Two years

**Journal**

1. Spandana Paramkusham, K. M. M. Rao, B. V. V. S. N. Prabhakar Rao, Automated Approach for Qualitative Assessment of Breast Density and Lesion Feature Extraction for Early Detection of Breast Cancer, TECHNIA, International Journal of Computing Science and Communication Technologies, VOL.6 NO. 1, July. 2013 (ISSN 0974-3375)

**Publications**

1. Ramachandra Nittala, Alivelu M Parimi, K. Uma Rao, "Phase shifting transformer based Interline Dynamic Voltage Restorer to Mitigate Voltage Sag", IEEE Conference INDICON 2013, 13-15 Dec, IIT Bombay, India.
2. Haripriya T, Alivelu M Parimi, U.M Rao, "Modeling of DC-DC Boost Converter using Fuzzy Logic Controller for Solar Energy System", IEEE Prime Asia, Visakhapatnam, Dec 19-21, 2013.
3. Chetan Vudadha, Sowmya Katragadda, Sai Phaneendra.P. "2:1 multiplexer based design for ternary logic circuits" Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia), 2013 .
4. Sai Phaneendra P, Chetan Vudadha, Sreehari Veeramachaneni and Srinivas MB" An Optimized Design of Reversible Quantum Comparator" 2014 27th International Conference on VLSI Design (VLSID), 2014

5. P.Spandana, Dr.Kunda M.M.Rao, SMIEEEE, Dr. B. V. V. S. N. Prabhakar rao, Dr.Jwalasrikala, "Novel Image Processing Techniques for Early Detection of Breast Cancer, Mat lab and Lab view implementation", IEEE Point-of-Care Healthcare Technologies (PHT), pp:105-108, January 2013.
6. Goutham Makkena, BVVSN Prabhakara Rao and M. B. Srinivas " Uniform Approximation of Gaussian Wavelet for Bio-Medical Signal Processing in Analog Domain" 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'13), 3-7 July 2013, at the Osaka International Convention Center, in Osaka, Japan.
7. Spandana Paramkusham, K. M. M. Rao, TECHNIA, B. V. V. S. N. Prabhakar Rao, "Automated Approach for Qualitative Assessment of Breast Density and Lesion Feature Extraction for Early Detection of Breast Cancer" International Journal of Computing Science and Communication Technologies, VOL.6 NO. 1, July. 2013 (ISSN 0974-3375)
8. P.Spandana, Dr.Kunda M.M.Rao, SMIEEEE, Dr. B.V.V.S.N.Prabhakar rao "Early stage detection of breast cancer using novel image processing techniques, Matlab and Labview implementation" IEEE Conference on Advanced Computing Technologies (ICACT), 2013 15th International Conference on,21-22 Sept. 2013,Page(s):1 – 5
9. Spandana Paramkusham, Kunda.M.M.Rao, B.V.V.S.N.Prabhakar Rao, "Automatic detection of Breast Lesion Contour and analysis using Fractals through Spectral methods" ACEEE Conference Proceedings,December 13-14, 2013Delhi(In Press)
10. Srinivas Rao Vutla, Prasant Kumar Pattnaik, Kannan Ramaswamy, Srinivas Prakash Regalla and M.B Srinivas, "Effect of Particles and Contaminants on the Static Response of a rectangular MEMS Diaphragm Due to Adverse Cleanroom Environment Conditions - Simulation Studies", IEEE Asia-Pacific Conference on Postgraduate Research in Microelectronics and Electronics, Prime Asia 2013, Visakhapatnam,19-21 December 2013.
11. K.V.S.Sashank,Syed Ershad Ahmed,Abhishek Singh and M. B Srinivas, "Modified truncation Schemes for Recursive Multipliers," , 9th Conference on Ph.D. Research in Microelectronics and Electronics (PRIME), proceedings., pp.141-144, 24-27 June 2013,Vilach ,Austria.
12. Syed Ershad Ahmed, Pawan Sastry, Sreehari Veeramanchaneni, M.B.Srinivas;, " A High Accuracy, Low Memory Logarithmic Converter ",Fourth International Symposium Highly-Efficient Accelerators and Reconfigurable Technologies (HEART) , proceedings., pp.121-124, 13-14 June 2013,Edinburgh ,Scotland.
13. Syed Ershad Ahmed, M.B.Srinivas , "Design of Low Power MAC unit in High Performance DSP Systems, "21st IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC) , proceedings., 7-9 October 2013,Istanbul ,Turkey.
14. K.V.S.Sashank , Syed Ershad Ahmed , " A Reconfigurable Fixed Width Scheme for Recursive Multipliers", Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia), 2013 , 19-21 Dec. 2013.
15. M.K, Kaushik, ; Y. Yoganandam;, "An efficient Methodology For Adaptive Spectrum Sensing in Cdma Cognitive Network", International Conference on Signal Processing and Telecommunications, 24-26 March 2013, sousse Tunisia.
16. M.K, Kaushik,; T. Seshatalpa Sai; Y, Yoganandam;, "Enhanced Energy Detection and Moving Average Thresholding for Cognitive Femtocell Networks," Asia pacific conference on Postgraduate Research in Microelectronics and Electronics, 19-21 December 2013, Visakhapatnam, India.
17. M.K, Kaushik,; P. V. Kalyan, Aalhad Parulekar,; Y, Yoganandam;, "Free-band detection from spectrum sensing and analysis", Asia pacific conference on Postgraduate Research in Microelectronics and Electronics, 19-21 December 2013, Visakhapatnam, India.
18. Dhruv Agarwal, Srinivas Raddy, S. K. Sahoo, "FIR Filter Design Approach for Reduced Hardware with Order Optimization and Coefficient Quantization" IEEE Proceeding of Internatioanl Conference on Intelligent Systems and Signal Processing, 1-2 March 2013, Gujarat, India.



19. SrinivasareddyKotha, AkshitSinghvi and Subhendu Kumar Sahoo "An Efficient RNS-FIR Filter Implementation using the Moduli Set" Prime Asia 2013.
20. P.Spandana, Dr.Kunda M.M.Rao, SMIEEE,Dr. B.V.V.S.N.Prabhakar rao, "Early stage detection of breast cancer using novel image processing techniques, Matlab and Labview implementation", IEEE Conference on Advanced Computing Technologies (ICACT), International Conference on,21-22 Sept. 2013,Page(s):1 – 5
21. P.Spandana, Dr.Kunda M.M.Rao, SMIEEE,Dr. B.V.V.S.N.Prabhakar rao, Dr.Jwalasrikala, "Novel Image Processing Techniques for Early Detection of Breast Cancer, Mat lab and Lab view implementation", IEEE Point-of-Care Healthcare Technologies (PHT), pp:105-108, January 2013.
22. Spandana Paramkusham a\*, Kunda.M.M.Rao b, B.V.V.S.N.Prabhakar Rao, Automatic detection of Breast Lesion Contour and analysis using Fractals through Spectral methods, ACEEE Conference Proceedings,December 13-14,Delhi(In Press)
23. R.Manjula sri, Ch.Madhubabu, KMM Rao: Lab VIEW based assessment of CDR for the detection of Glaucoma-.IEEE International Conference on Emerging trends in Computing, Communication and Nanotechnology(ICECCN-2013), March 25-26,2013,at IJCET, Tuticorin,Tamilnadu. (IEEEExplore).
24. R.Manjula Sri, Ch.Madhubabu, KMM Rao: Automatic detection of Age Related Macular Degeneration from Retinal Images- Technia – International Journal of Computing Science and Communication Technologies, Volume5,issue2 , January 2013. (IEEEExplore).
25. R.Manjula Sri, KMM Rao: Applications of Image Processing Techniques for Automatic Detection of Eye Diseases-International conference on Bio-signals, Images and Instrumentation(ICBSII2013, 14th-16th March 2013,at SSN College of Engineering,Chennai, India. (IEEEExplore).
26. R. Manjula Sri, M.Raghupathi Reddy, KMM.Rao, "Detection of Age-related Macular Degeneration using Open CV for Image Processing Applications, 2nd International Conference on Innovations in Electronics and Communication Engineering (CIECE-2013) at GNIT, Hyderabad during 9-10 August, 2013(accepted)
27. K. Sashank, S. Ahmed, A. Singh, M.B.Srinivas , " A Modified Truncation Scheme for Recursive Multipliers ", 9th Conference on Ph. D. Research in Microelectronics and Electronics (PRIME) , 24-27 June , 2013 , Villach , Austria .
28. Goutham Makkena, BVVSN Prabhakara Rao and M. B. Srinivas " Uniform approximation of Gaussian wavelet for biomedical signal processing in analog domain," 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'13), 3-7 July 2013, Osaka, Japan
29. Avinash S. Vaidya, P.Himabindu M.B. Srinivas., " A Smart Phone/Tablet based Mobile Health Care System for Developing Countries," 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'13) , 3-7 July, 2013, Osaka, Japan
30. Avinash S. Vaidya, Goutham Makkena, V. Sreehari, Srinivasa K. Rao, M.B. Srinivas "A Sustainable Solution for Monitoring Malnutrition in Children in Developing Countries" in Global Humanitarian Technology Conference - South Asia Satellite Conference 2013 23rd -24th August 2013
31. Sreehari Veeramachaneni, M. B. Srinivas, "Design of Efficient Arithmetic Circuits for Realization of Floating Point Adder/Subtractor Units", 2013 IEEE/IFIP 20th International Conference on VLSI and System-on-Chip (VLSI-SoC), 7-9 Oct. 2013.
32. Syed Ershad Ahmed, M.B.Srinivas, "Design of Low Power MAC unit in High Performance DSP Systems, "21st IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC) , proceedings., 7-9 October 2013,Istanbul ,Turkey

**Conferences attended/papers presented:**

1. "Comparison of performance in P3HT:PCBM bulk heterojunction organic solar cells of different thickness", A.Saradhi, B.V.V.S.N Prabhakar Rao, IEEE CONECCT 2014, Jan 6-7 2014
2. Syed Ershad Ahmed attended and presented a paper in 21st IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC) International Symposium on Electronic System Design (ISED), 7-9 October 2013, Istanbul ,Turkey.

3. P.Spandana, Dr.Kunda M.M.Rao, SMIEEE,Dr. B.V.V.S.N.Prabhakar rao, Dr.Jwalasrikala, "Novel Image Processing Techniques for Early Detection of Breast Cancer, Mat lab and Lab view implementation"
4. Syed Ershad Ahmed attended and presented paper in Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia), 19-21 Dec. 2013,Visakhapatnam, India
5. Dr Alivelu Manga Parimi attended a National symposium from Feb 22-23 2013. MicroGrids: Laboratory to real Markets.
6. Chetan Kumar Vudadha attended Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia), GITAM University 2013
7. Chetan Kumar Vudadha attended 27th International Conference on VLSI Design (VLSID), IIT-Bombay 2014
8. Prabhakar Rao BVVSN attended IEEE Prime asia 2013 conference held at GITAM College of Engineering Visakhapatnam, AP
9. Prof Yoganandam attended IEEE visit for Collaborative Research in University of Tokushima, Tokushima Japan.
10. K M M Rao; Spananda attended IEEE Conference on Advanced Computing Technologies (ICACT), 15th International Conference on,21-22 Sept. 2013, at Rajampet,A.P
11. P.Spandana, Dr.Kunda M.M.Rao, SMIEEE,Dr. B.V.V.S.N.Prabhakar rao, "Early stage detection of breast cancer using novel image processing techniques, Matlab and Labview implementation" and IEEE Point-of-Care Healthcare Technologies (PHT), January 2013 at Bengaluru,

**Invited Talks given by BITS faculty:**

- "FACTS and its Industrial Application to Modern Power System" at Geethanjali Engineeringcollege , Geethanjali College of Engineering and Technology
- M. Kaushik, PhD scholar visited University of Tokushima, Tokushima Japan for Collaborative Research in Cognitive Radio Applications and presented a talk " AN OVERVIEW OF COGNITIVE RADIO RESEARCH"
- Dr.K.M.MRAo "Advances in Medical imaging, processing and applications" during the workshop on Advances in Image Processing and Applications" held at BITS,Hyderabad during 26th -27th Oct, 2013.
- Dr.K.M.M.Rao, "ADVANCES IN MEDICAL IMAGE PROCESSING" during the seminar on "EM waves and Transmission lines" during 29th Sept, 2013 at IETE,Hyderabad center.
- Invited Talk - 'Affordable Technologies for Healthcare', One-Day Workshop on Pervasive Healthcare, NIIT University, Neemrana, India, January, 2013
- Invited Talk – 'ICT for Healthcare', A Two-Week Winter School on Global Health, Jointly organized by BITS Pilani, Hyderabad Campus and Albert Einstein College of Medicine', New York, March, 2013.
- Workshops Conducted by Department: Organization committee of "Workshop on advances in image processing and applications" Oct 27, 28, 2013.

**Invited talks arranged in the department:** None

**Awards and recognitions won by faculty and students**

- Syed Ershad Ahmed Won Gold Leaf Award for the paper " A Reconfigurable Fixed Width Scheme for Recursive Multipliers" presented at Prime Asia, 19-21 Dec. 2013, Visakhapatnam, India
- Chetan Kumar Vudadha won Bronze leaf certificate for paper "2:1 multiplexer based design for ternary logic circuits" at Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia), 2013.
- Syed Ershad Ahmed was awarded travel grant of 900 Euros for attending and presenting the paper International Symposium on Electronic System Design (ISED), 7-9 October 2013, Istanbul ,Turkey.

- Chetan Kumar Vudadha Project titled “Smart Floor cleaning bot” was shortlisted for Phase 1 of “Texas Instruments Innovation Challenge India Analog Design Contest 2014”
- P K Pattnaik received Certificate of Appreciation for being a reviewer of the journal “Optical Engineering” published by SPIE.

#### Faculty Development, International Collaboration & Industry Immersion

- Anantha Saradhi attended the workshop on “Organic Electronic Materials and Devices - 2013, NIT Suratkal, from December 19-21, 2013.
- Dr S K Sahoo visited NTU Singapore during 5th June to 8th July 2013 under University immersion program funded by BITS, Pilani.
- Dr K M M Rao conducted a workshop on 26th -27th Oct,2013 at BITS,Hyderabad on “Advances in image processing and applications” around 150 participants from BITS and out side universities and industry attended the event.
- About 12 Speakers delivered the talks and NI has provided hands on Laboratory software experiments in image processing using vision modules of Lab View.

#### Significant New Equipment /Experimental Facility added during the year:

S.No	Name of Lab	To cater for	Number of Setups	Number of students per session	Cost of the equipment	Remarks
1	Digital Electronics	2nd Year Students	20	60	Up graded from 10 setups to 20 setups with a cost of Rs. 12.7 Lakhs	This lab runs 6 afternoons a week
2	Microprocessor & Interfacing	2nd Year Students	20	60	Up graded from 10 setups to 20 setups with a cost of Rs. 5.24 Lakhs	This lab runs 6 afternoons a week
3	Digital Signal Processing HW	3rd Year Students	20	60	Fresh facility with a cost of 14.56 Lakhs	This lab runs 5 afternoons a week
4	Microelectronic Circuits	2nd Year Students	20	60	Fresh facility with a cost of 6.5Lakhs	This lab runs 3 afternoons a week
5	Analog Electronics	3rd Year Students	16	48	Up graded from 12 setups to 16 setups and also introduced easy to use kits with a cost of Rs. 2.56 lakhs	This lab runs 5 afternoons a week
6	Microwave Laboratory	3rd Year Students	16	48	Fresh facility setup with a cost of Rs.27.0 lakhs	This lab runs 3 afternoons a week
7	Communication systems	3rd Year Students	18	48	Up graded with a cost of Rs. 18.0 Lakhs	This lab runs 4 afternoons a week
8	Electrical machines	2nd Year Students	25	60	Up graded from 10 setups to 25 setups with a cost of Rs. 45.00 Lakhs	This lab runs 5 afternoons a week

#### Departmental association/club activities:

- Organized “Texas Instruments analog design contest: College level” at BITS-Pilani, Hyderabad Campus
- Dr Alivelu Manga Parimi has coordinated a visit to the Malkaram Substation for sthe students on January 19, 2013.

- Organized a 2 day workshop on “ Advances in image Processing and Applications” held at BITS, Pilani, Hyderabad Campus from 26 – 27th Oct, 2013

### Major Maintenance, Renovations or New Construction Reports

SI.No	Name of New Space	To cater for	Approximate SFT	Remarks
1	E - 221	Power Electronics		
2	E - 210	Control systems	1984	
3	D - 311	Communications & analog Electronics Labs	1184	

### Major Equipment Acquired during the year:

SI.No	Name of Equipment	Cost of the equipment	Remarks
1	Microwave equipment	24.30 Lakhs	
2	Communications	17.52 lakhs	
3	Control Systems	64.38 lakhs	
4	Power electronics	20.70 lakhs	
5	Digital Oscilloscopes, Function generators etc..	8.87lakhs	

### B3.10.7 Economics & Finance

Number of faculty members

<b>Senior Professors, Professors</b>	Nil
<b>Associate Professors</b>	Nil
<b>Assistant Professors</b>	04
<b>Lecturers</b>	01
<b>Visiting Faculty</b>	05

**Head of the Department:** Dr P Lalitha

**Contact details:** lalitha@hyderabad.bits-pilani.ac.in; Tel: 040 660303582

**Number of PhD Scholars:**

**Sponsored Research activities:** NIL

**Projects sanctioned during the year:** NIL

**Publications:**

1. Sudatta Banerjee and Tanaya Sinha, 2013 "Socio Economic Determinants of Suicide- A Panel Data Analysis across Indian States", International Journal of Management and Development Studies, Vol. 1, No. 4, pp. 17-27.
2. Sudatta Banerjee Study on Unaccounted Income/Wealth both Inside and Outside the Country, Apr, 2013 .
3. Swati Alok, Prasuna M.G. (2013), "Vignette Development: An Illustrations in Conflict Research", AIMS International Journal of Management (Accepted)
4. Swati Alok, Ravali Reddy (June 2013), "Determinants that influences pharmaceutical companies in the selection of wholesale distributors"- A case study of Karimnagar district of Andhra Pradesh", International Journal of Management and Behavioral Sciences (IJMBS), Vol-4 , pp 59-66; (ISSN 2278-5671).
5. Swati Alok, Meera Lal (Dec 2013) , "Designing a Model for Task Conflict Management – Application of Theory of Planned Behaviour" ,Asian Economic Review, Vol 55, No. 3 (pp-473); IIE Journal (ISSN: 0004-4555).
6. Dr.P.Lalitha and Shikhar Malik 2013 " Revealed Comparative Advantage and Competitiveness: A Case Study for India, Adhikaar, An International Journal, Years-3, No.3 March2013, ISSN 2231-2552, PP 20-22
7. Dr.Payal Mehta, (Jan, 2013) "Impact of Functional Areas on Stress Level of Executives: A New Perspective"at Pacific Business Review International, Volume 5 Issue 7 .

**Conferences attended/papers presented:**

1. Swati Alok, Presented the paper on, "Assessment of Conflict style using Vignette Methodology" in International Conference and Doctoral Colloquium on Social Science Research" sponsored by ICSSR at Institute of Public Enterprise (IPE) , Hyderabad on 2nd Jan 2013.
2. Sudatta Banerjee , XXIIInd Annual Conference on "Contemporary Issues in Development Economics", Department of Economics, Jadavpur University, Kolkata, India, 3-4 January, 2013.
3. Swati Alok, Presented the paper on "Determinants that influences pharmaceutical companies in the selection of wholesale distributors"- A case study of Karimnagar district of Andhra Pradesh" at 3rd International conference on Innovation Management and Business Prospects (IMBP), organized by Society of Management and Behavioral Sciences ,Haridwar June 2013
4. Swathi Alok Presented the paper on " Efficacy of Theory of planned behaviour: A study of task conflicts among Indian software employees", The 13th International Consortium of Students in Management Research (COSMAR-13) at Department of Management Studies in IISc, Bangalore (15-16 Nov, 2013).
5. Swati, Alok presented the paper on , "A study of Entrepreneurial Intentions among University Students", 2nd International Conference on "Managing Human Resources at the Workplace", SDMIMD Mysore, (15-16 December 2013).
6. P.Lalitha, presented a paper on " Occupational Structure of Tribals in India : A Case of Andhra Pradesh" in 55th National Annual Conference of Indian Society of Labour Economics (ISLE) 16-18th Dec-2013.
7. Sudatta, presented a paper on "Determinants of Female Autonomy across Indian States", in 50th Golden Jubilee Annual Conference of the Indian Econometric Society (TIES), held at IGIDR, Mumbai, India, 22-24 December, 2013 .
8. Swati Alok, Presented the paper on "Predicting the Conflict style Intention to Manage Relationship Conflict", 11th AIMS International Conference on Management at IMT Ghaziabad, India (21-24 Dec., 2013).
9. Payal Mehta, presented a paper entitled "Occupational Stress and its impact on employee competence: A sample study" at 50th Golden Jubilee Annual Conference of the Indian Econometric Society (TIES), held at IGIDR, Mumbai, India, 22-24 December, 2013.

**International Conferences attended/papers presented:**

- P.Lalitha. presented a paper on " Issues and Challenges of Tribals in India : A Case of Andhra Pradesh" in International Conference on Business, Finance and Economics organised by World Academy of Scientific Engineering and Technology (WASET) during 25-26 November, 2013 in Pattaya, Thailand.

**Chapters in Books**

- Pathak D C & Srijit Mishra (2013): "Poverty in India and Its Decompositions: A Critical Appraisal of the New Method" in the India Development Report 2012 - 13 (ed. S Mahendra Dev) pp. 209 - 223, Oxford University Press, New Delhi.

**Invited Talks given by BITS faculty:**

- P.Lalitha, Resource person for UGC programs on DD-1 nation-wide relay (dealing with few modules in International Economics for under graduate students)
- P.Lalitha, resource person for Winter Institute of Global Health conducted by Dr.Suman Kapoor , Jan, 2013.
- Meeralal, Resource person for UGC programs on DD-1 nation-wide relay (Dealing in Economic Growth and Development for undergraduate students)

**Invited talks arranged in the department:**

- Guest lecture on "Navigating from WIPRO to WALL STREET" - Journey of a BITS Alumni, by Mr. Srinivas Kopparapu, Managing Director, Broadreach Asset Management- USA. On 12.09.2013 :
- Guest lecture on " Current trends in Pharmaceutical Industry" by Ms.Shubha Chungi, Senior Consultant, Pharmaceutical Industry-USA on 05.09.2013 :

**Workshops/ Seminars organized by the department.**

- Workshop on "Basics & Operational Aspects of Stock (Market) Trading", Conducted by SBI Capital Markets and organized by Kodali Sivarama Krishna on 16.09.2013.
- One day Workshop on " SPSS : Hands on experience", Conducted by Mr.Uday Bhate and organized by Mr.Hanumantha Rao on 27.04.2013
- One day Workshop on " Indian Trade and Banking", Organized by Dr.P.Lalitha and Dr.Meeralal on 16.04.2013

**Awards and recognitions won by faculty and students**

- Swati Alok, Lecturer, won best paper in the track of Human Resource Management for the paper presented in "The 13th Consortium of students in management Research (COSMAR 2013)" on 15th & 16th November 2013 at the Department of Management Studies, IISc. Bangalore
- Ms.Swati Alok, Lecturer, won Second prize in AIMS-BIMTECH Doctoral Student Paper Competition held at AIMS-11 on Dec 21-24, 2013 , IMT Ghaziabad.

**Faculty Development, International Collaboration & Industry Immersion: Nil****Significant new equipments/experimental facility added during the year: Nil****Departmental association/club activities:**

- Workshop on "Financial Education" Conducted by Dr. Rathina Kumari and organised by Economics Association on April 08, 2013

**Major maintenance, renovations or new construction reports: Nil****Major equipment's acquired during the year: Nil**

**B3.10.8 Humanities and Social Sciences**

Number of faculty members

<b>Senior Professors, Professors</b>	Nil
<b>Associate Professors</b>	Nil
<b>Assistant Professors</b>	4
<b>Lecturers</b>	1
<b>Visiting Faculty</b>	1

**Head of the Department:** M.G.Prasuna**Contact details:** prasuna@hyderabad.bits-pilani.ac.in / phone: 040-66303531

Number of PhD Scholars: 2

**Sponsored Research activities:****Ongoing projects:**

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (in Lakhs)	Duration
1.	Challenging the Representation of Women in Matrilineal Communities of Kerala through Selected Fiction	Dr Maya Vinai	RIG	2.00	2 years
2.	Climate Change, Market and Livelihoods	Dr Srinivas Sajja	RIG	2.00	2 years

**Projects sanctioned during the year**

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (in Lakhs)	Duration
1.	Effects of Mantras on Human Mind, Life and Performance	Dr Aruna Lolla	RIG	2.00	2 years

**Publications:**

1. Maya Vinai & M.G.Prasuna. "Quest for Identity: Parsi culture and sensibility in the works of playwrights Gieve Patel and Cyrus Mistry". ' Criterion: An International Journal in English' Vol.IV Issue 1, February 2013.
2. M .G.Prasuna."Ideals-How true to Life ? An Analysis of Shashi Deshpande's 'Roots and Shadows'. International Journal of English: Literature, Language and Skills, April 2013.
3. M. G.Prasuna. "Writing 'like' a Woman: An Analysis of the Short Story The Fox by D.H.Lawrence." International Journal of English and Literature, June 2013.
4. M. G.Prasuna, Maya Vinai & Aruna Lolla. " Nonsense Verse in English Language". International Journal of English: Literature, Language and Skills, October, 2013.

5. Lolla, Aruna and Prasuna, M.G., "Early strain of Indo-English Poetry-A potent guide for future poets: with a special reference to Sarojini Naidu", *The Journal of Higher Education and Research Society (JHERS)* ISSN No.2321-9432, Vol. 1, Issue 1. October 2013.
6. Maya Vinai. "Diasporic Consciousness in the works of Anita Nair". *International Journal of the Frontiers of English Literature and patterns of ELT*. Vol.1, Issue 1 Jan 2013.
7. Maya Vinai. "Stereotyping in the works of Rohinton Mistry. Rohinton Mistry: The Writer Par Excellence". Ed. Suman Bala. New Delhi: Prestige 2013.
8. Maya Vinai. *Muse India*, "Campus Politics in the works of Malayatoor Ramakrishnan." Vol.51, 2013.
9. Olympia Bhatt. "The Circuits and Politics of Sound Technology in India", *International Journal of Social Sciences and Humanities*, Volume II, June 2013.

#### **Conferences attended/papers presented:**

1. M.G.Prasuna. " Writing 'like' a Woman: An Analysis of the short story 'The Fox' by D.H.Lawrence" presented at the International Conference on English Language and Literature by International Academic and Industrial Research Solutions (IAIRS) held at Hyderabad, 19- 20 January, 2013.
2. M.G.Prasuna . "Crossing Classroom confines: Essential Skills for the Real World" presented at the National Conference on " A Paradigmatic Shift in ELT: Empowerment of the English Classroom", held at Vasavi College of Engineering, Hyderabad, 1-2 Feb, 2013.
3. M.G.Prasuna. "Real Skills for the Real World: Understanding Practice-oriented Education Reforms" presented at the International conference organized by IIM, Kashipur at India Habitat Centre, New Delhi ,25-26 March,2013.
4. Aruna Lolla & M.G.Prasuna. " Early Strain of Indo-English Poetry- A Potent Guide for Future Poets: With special reference to Sarojini Naidu" presented at the national conference on South Asian Literature and Culture organized by Literary Insight Journal,at Pune, 6-7 September, 2013.
5. M.G.Prasuna & Pranava Singhal. " Adding Value to Technical Education Through Theatre Arts " presented at the National Conference on "Rethinking the Role of Humanities In Technical Education : Pedagogies and Possibilities " held at BITS Pilani – Hyderabad Campus, 18-19 October, 2013.
6. Aruna Lolla. "Improving Communication Skills in English of the Technical Students through Learner – Centered Approach: Experience and Suggestions. "presented at the National Conference on "Rethinking the Role of Humanities In Technical Education : Pedagogies and Possibilities " held at BITS Pilani – Hyderabad Campus, 18-19 October, 2013.
7. Maya Vinai. " Globalization of Cuisines: Rethinking the role of Food in the recent Indian of English Fiction." presented at the national conference on South Asian Literature and Culture organized by Literary Insight Journal,at Pune, 6-7 September, 2013.
8. Srinivas Sajja. "Rainfall Variability and Adaptation Strategies: A Case Study from Nizam Sagar Project, Andhra Pradesh' in RC 03 Economy, Polity and Society", Presented at XXXIX All India Sociological Conference, 27 - 29 December, 2013 at Karnataka State Open University, Mysore.
9. Srinivas Sajja. "'Deepening Democracy through Decentralization: An analysis of policy and potential in Andhra Pradesh' " Presented at UGC-SAP National Seminar on Development Issues in India: Major Challenges to Twelfth Five Year Plan , 25-26 March, 2013 at Osmania University, Hyderabad.
10. Srinivas Sajja. "Negotiating Empowerment of Women through PNRM: Case Studies from Andhra Pradesh' Presented at UGC-SAP National Seminar on Rural Women and Natural Resources Management,15-16th March at Sri Krishnadevaraya University, Anantapur.
11. Olympia Bhatt. "The Sound of Music: Musical Beginnings and Trends in 1920s Indian Cinema
12. Silent Film Sound: History, Theory & Practice" presented at Christ Albrechts University, Kiel ,2013.
13. Olympia Bhatt. "Coping with the Archive, Working with Materialism: An Approach to Early Indian Cinema Historiography" presented at National conference titled Frames of Reference, Dec16-17 2013, Tata Institute of Social Sciences, Mumbai .

#### **Invited Talks given by BITS faculty:**

- M.G.Prasuna was invited to conduct a session on " Presentation and Public Speaking" at Osmania University Centre for International Programmes on 24th August, 2013.



**Invited talks arranged in the department:**

- A Workshop titled " Technology and Literature - A Walking Tour - Photography, the Phonograph and the Typewriter " by Micheal Wutz, Brady Distinguished Professor, Weber State University, USA, was held on 16th November, 2013.
- A guest lecture on "Democracy and The Right to Information " by Mr.Ramakrishnam Raju, Convenor, National Alliance for People's Movement" was held on October 24th, 2013..
- Sri. Sakshi Rupananda of Chinmaya Mission delivered two guest lectures on Srimad Bhagavad Gita on 18 and 21 of Oct. 2013.
- A guest lecture on 'Images in Advertising' by Mr. Arvind Chenji, renowned fashion photographer, was held on 19th April, 2013.
- A guest lecture on "Science , Technology and Swami Vivekananda" by Dr.TGK Murthy, Outstanding Scientist, ISRO was organized on 6th February, 2013.
- A guest Lecture on "Understanding Self (to be a more Effective Executive) by Mr.P.Dinakar Rao ( Retd CMG of SBH ) was organized on 18th February, 2013.).
- A guest lecture on "Understanding the role of emotions in life" by Dr.Smitha Sharma was held on 6th April, 2013.
- A guest lecture by V.V.Bhat, I.A.S and Member, Atomic Energy Commission on 'Self Management" was held on 23rd March, 2013.

**Awards and recognitions won by faculty and students: NA**

**Faculty Development, International Collaboration & Industry Immersion: NA**

**Significant new equipments/experimental facility added during the year: NA**

**Departmental association/club activities:**

A National Conference on "Rethinking the Role of Humanities in Technical Education : Pedagogies and Possibilities" , was organized by the department in October, (18-19), 2013. Scholars and academicians from eminent universities from all over the country participated in this two-day conference.

A workshop on Research Methods for first degree and higher degree thesis students was conducted on 14th September, 2013.

BITS Pilani, Hyderabad played host to Amish Tripathi, best-selling author of the Shiva Trilogy, at the University's Literary Festival, Verba Maximus ' February, 2013. The English Languages Activity Society (ELAS) conducts VERBA MAXIMUS – a literary event annually. The events are held under two categories - speaking and writing. The speaking events include JAM, debate and GD. The Writing events include poetry, story-writing and script-writing. The other events are a literary quiz, treasure hunt and a lot of informal events like scrabble, hangman etc. Our Spell Bee is being endorsed by the Indian Spell Bee, giving it a very high standard. Students had an opportunity to interact with celebrity writer Amish Tripathi, and stand-up comedian Sorabh Pant.

**Major maintenance, renovations or new construction reports: NA**

**Major equipments acquired during the year: NA**

**B3.10.9 Mechanical Engineering**

Number of faculty members

<b>Senior Professors, Professors</b>	1
<b>Associate Professors</b>	5
<b>Assistant Professors</b>	4
<b>Lecturers</b>	6
<b>Visiting Faculty</b>	0

Head of the Department: Prof. Y.V.D. Rao

Contact details: 040 66303551

Number of PhD Scholars: 20

**Sponsored Research activities:**

Ongoing projects:

S. No	Title of the project and duration	Name of the Principal Investigator & Co-PI (if any)	Funding Agency	Sanctioned Amount	Duration
1	Rapid Incremental Forming Of Extra Deep Drawing (Edd) Steel Sheet Metal Parts With Asymmetric Geometry.	Dr. Srinivasa Prakash Regalla	UGC	9.73	3 years
2	High Temperature Material Properties Of Titanium Sheets.	Dr. Amit Kumar Gupta	DST	11.8	3 years
3	Development Of Electrostatic Nano-Solid Lubricant Coated Tools For Sustainable Machining	Dr. N. Suresh Kumar Reddy	CSIR	18.52	3 years

**Projects sanctioned during the year**

S. No	Title of the project and duration	Name of the Principal Investigator & Co-PI (if any)	Funding Agency	Sanctioned Amount	Duration
1	High Temperature Material Properties Of Titanium Sheets, 3years	Dr. Amit Kumar Gupta	DST	11.80	3 years
2	Novel Minimal-Solid Lubricant Mixture Application Method For Performance Improvement In Turning	Dr. N. Suresh Kumar Reddy (PI) & Prof. S. P. Regalla (Co-PI)	SERC (DST)	32.50	3 years

**Publications:**

## Journal Publications in 2013

1. Morapakala Srinivas. Viability evaluation of domestic solar hot water systems using two multi criteria evaluation techniques: case study of an urban area in India. *Journal of Technological Innovations in Renewable Energy*. Volume 2, 2013, PP 76-87.
2. Kiran C.P., Shibu Clement and Agrawal V.P. (2013): Mechatronic system reliability modeling and analysis, *International Journal of Reliability and Safety*, Vol.7, pp.128-155.
3. Kiran C.P. and Shibu Clement (2013): Surface quality investigation of turbine blade steels for turning process, *Measurement*, Vol.46, pp.1875-95.Elsevier Publisher.
4. Syed Mujahed Hussaini, Swadesh Kumar Singh, Amit Kumar Gupta, "Formability and fracture studies of austenitic stainless steel 316 at different temperatures", *Journal of King Saud University – Engineering Sciences*, In Press, 2013, DOI: 10.1016/j.jksues.2013.05.001.
5. SM Hussaini, SK. Singh, and AK Gupta. "Experimental investigation of Dynamic strain aging regime in Austenitic Stainless Steel 316", *International Journal of Engineering Research & Technology*, 2013, pp 1691-1694.
6. Syed Mujahed Hussaini, Swadesh Kumar Singh, Amit Kumar Gupta, "Experimental and Numerical Investigation of Formability for Austenitic Stainless Steel 316 at Elevated Temperatures" *Journal of Materials Research and Technology*, DOI : 10.1016/j.jmrt.2013.10.010
7. Syed Mujahed Hussaini, Swadesh Kumar Singh, Amit Kumar Gupta, "Formability of Austenitic Stainless Steel 316 sheet in Dynamic Strain Aging Regime", *Acta Metallurgica Slovaca*, DOI: 10.12776/ams.v20i1.187
8. Rajasri, A. V. S. S. K. S. Gupta, YVD Rao, " Comparison of Train Values of PGTs for different structural aspects like symmetry, compactness and driver speed", *International Journal of Current Research*, Vol 5, Issue 05, 1138-1141, 2013.
9. Rajasri, A. V. S. S. K. S. Gupta, Y VD Rao, "A Comparative Study of Few Tests for Isomorphism in Planetary Gear Trains", *International Journal of Engineering and Technology Innovation*, Vol 4, Issue 02, 1074-1080,2013.
10. Sajun Prasad, YVD Rao, "Biped Robots", *International journal of advance material manufacturing and characterization*, vol 3, issue 1, ISSN 2277-3886, 2013
11. Nitin Kotkunde, Nitin Krishnamurthy, A. K. Gupta, S. K. Singh, " Development of Modified Arrhenius Model for Ti-6al-4v Alloy to Predict the Flow Stress", *International Journal of Advanced Materials Manufacturing & Characterization Vol3 Issue 1 (2013)*, pp. 83-88.
12. Nikhil Tatke, Nitin Kotkunde, " Numerical Evaluation of Stress Intensity Factor for Inclined-Edge Crack Geometry using Singularity Elements", *International Journal of Advanced Materials Manufacturing & Characterization Vol3 Issue 1 (2013)*, pp. 149-154

**Conference Publications in 2013**

1. Srinivas Morapakala, Akshay Ananthakrishnan, Sandip Deshmukh. Design of Solar Heliostat System for a Community Level Cooking Application. 12th International conference on sustainable energy technologies (SET-2013). 26-29th August 2013. Hong Kong Polytechnic University, Hong Kong.
2. Kiran C.P., Shibu Clement, H. Chelladurai (2014): Experimental evaluation of quality interactions in material processing, *Proceedings of International conference on Product Life cycle, Modeling, Simulation and Synthesis, PLMSS2014*, Jan 6-8, 2014, VIT, Vellore, Tamilnadu, India
3. Uma Maheswara Reddy Paturi, Suresh Kumar Reddy Narala, *Finite Element Analysis and Study of Tool Wear in machining with Coated Tools*, *Proceedings of the ASME-IMECE 2013*, November 15-21, 2013, San Diego, California, USA.
4. N. Suresh Kumar Reddy and H.A. Kishawy, *Beneficial Effects Of Solid Lubricant Mixture Assisted Machining*, *NAMRC 41/SME (North American Manufacturing Research Institution of SME)*, 10-14 June 2013, Madison, USA.

5. Sajun Prasad YVD Rao, "Biped Robots and control", International conference of advance material manufacturing and characterization, Pune, GRIET, Hyderabad, 2013.
6. Jeevan Jaidi (2013), "A Low-Reynolds Number Based k-e Model For Confined Diffusion Flame Reactor," 22nd National and 11th ISHMT-ASME Heat and Mass Transfer Conference, IIT-Kharagpur, INDIA, December 28-31
7. Nitin Kotkunde, Aditya D. Deole, Amit Kumar Gupta, Swadesh Kumar Singh, "Development of Constitutive models for Ti-6Al-4V alloy over wide ranges of low strain rates and temperatures", 8th COPEN 2013, NIT Calicut.
8. Nitin Kotkunde, Aditya D. Deole, Amit Kumar Gupta, Swadesh Kumar Singh, "A comparative study on Modified Johnson-Cook and Fields-Baclofen constitutive models to predict flow behavior of Ti-6Al-4V alloy sheet at elevated temperature", International Conference on Computer Aided Engineering (CAE-2013), IIT Madras.
9. Jeevan Jaidi (2013), "A Low-Reynolds Number Based k-e Model For Confined Diffusion Flame Reactor," 22nd National and 11th ISHMT-ASME Heat and Mass Transfer Conference, IIT-Kharagpur, INDIA, December 28-31.
10. Srinivas Morapakala, Design of Solar Heliostat System for a Community Level Cooking Application. 12th International conference on sustainable energy technologies (SET-2013). 26-29th August 2013. Hong Kong Polytechnic University, Hong Kong.

**Invited Talks given by BITS faculty:**

- Prof. S.P.Regalla (Advanced Manufacturing Technics –CBIT HYD.);
- Prof. S.P.Regalla,(Thematic workshop on Robotics-Chennai)

**Invited talks arranged in the department:**

- Prof. A. Sethuramaiah (former Professor, IIT Delhi) on tribology of Micro Electro Mechanical Systems (MEMS)
- Prof. P. N. Rao (USA) on Rapid Prototyping Technologies
- Dr. Majumdar (DRDO) on Superplastic forming of Aluminium alloys

**Awards and recognitions won by faculty and students:**

- Dr. Amit kumar Gupta: UGC Research Award
- Dr. Amit kumar Gupta: Prof. S. Venkateswaran Faculty Excellence award
- Dr. N.S.K. Reddy: Visiting Professor at UOIT, Canada Award

**Faculty Development, International Collaboration & Industry Immersion: Collaboration with industries:**

- BITS-FMC collaborative student projects on real industry problems with CPDR as the nodal laboratory
- BITS-Mayukha Solar collaborative research project on efficient solar cooker with RACE laboratory as node
- Clean Room facility for Micro Electro Mechanical Systems (MEMS) fabrication in collaboration with Hemair Systems

**Significant new equipments/experimental facility added during the year:**

- Milling Tool Dynamometer
- Metal Etching Unit
- Temp. Measurement and Calibration
- VDSA (Bench Mounted version)
- Discharge Through Venturi and Orifice Meter
- Wind Tunnel Test Rig model
- Image Analysis Software
- Stereo Trinocular Microscope
- Electromagnetic Yoke (Set)
- Docile X Jr with Robo guru software (5 Nos)

- Docile X robot (5 Nos)
- KUKA (Simpro Software)
- Microscope stms-123B ( CSIR )
- Infrared thermal image camera model E 60 ( DST )
- Abacus 6.12 software (DST)

**Departmental association/club activities:** SAE India, MESA

**Major maintenance, renovations or new construction reports:** NIL

**Major equipments acquired during the year:** See the Annexure 8

### **B3.10.10 Mathematics**

#### **Number of faculty members**

<b>Senior Professors, Professors</b>	1
<b>Associate Professors</b>	2
<b>Assistant Professors</b>	9
<b>Lecturers</b>	0
<b>Visiting Faculty</b>	2

**Head of the Department:** Dr. Bivudutta Mishra

**Contact details:** E-mail: [bivu@hyderabad.bits-pilani.ac.in](mailto:bivu@hyderabad.bits-pilani.ac.in), Tel: 040-66303532

**Number of PhD Scholars:** 1

**Sponsored Research activities:**

**Ongoing projects:**

<b>S.No</b>	<b>Project Name</b>	<b>Principal Investigator</b>	<b>Funding Agency</b>	<b>Sanctioned Amount</b>	<b>Duration</b>
1	Study of cosmological models in bimetric theory of gravitation	Dr.P.K. Sahoo	UGC, New Delhi	1.80	2 years
2	An Application of Optimal Homotopy Asymptotic Method in the Study of the Flow of the Non-Newtonian Fluid through Pipes	Dr T S L Radhika	RIG, BITS	2.00	2 years
3	A certain study of wavelet analysis and its applications	Dr.Manish Kumar	RIG, BITS	1.36	2 years

**Projects sanctioned during the year**

SNo	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	Generalized Convexity, Hermite-Hadamard Inequality on Riemannian Manifolds and their Applications	Dr.Akhlad Iqbal	UGC	6.00	2 years

**Publications:**

1. B. Mishra and P.K. Sahoo: "Study on Kink Space-time in Scale Invariant Theory with Wet Dark Fluid", Journal of Theoretical and Applied Physics 2013, 7:36 doi:10.1186/2251-7235-7-36, 2013.
2. P K Sahoo & B. Mishra: "Axially symmetric space-time with strange quark matter attached to string cloud in bimetric theory", International Journal of Pure and Applied Mathematics, 82(1), 87-94, 2013.
3. Arun Ravishankar, B. Mishra and P.K. Sahoo: "Kantowski-Sachs Cosmological Model with Wet Dark Fluid in General Theory of Relativity", Turkish Journal of Physics, 37, 166-171, 2013.
4. G.C. Samanta, S. Dhal, and B. Mishra: "Five Dimensional Bulk Viscous Cosmological Model with Wet Dark Fluid in General Relativity", Astrophysics & Space Science, 346, 233-236, 2013.
5. P.K. Sahoo and B. Mishra: "String cloud and domain walls with quark matter for plane symmetric cosmological model in bimetric theory", Journal of Theoretical and Applied Physics, 7, 1-5, 2013.
6. G. C. Samanta, S. K. Biswal & P K Sahoo: "Five Dimensional Bulk Viscous String Cosmological Models in Saez and Ballester Theory of Gravitation", International Journal of Theoretical Physics, 52(5), 1504-1514, 2013.
7. Narimhulu Dunna, Addepalli Ramu, Dipak Kumar Satpathi and G Sudha: "Phase-Plane Analysis Application to Guderley's Problem," Journal of Emerging Trends in Engineering and Applied Sciences, 4(3), 406-411, 2013.
8. Dipak Kumar Satpathi and B Jagadish Chandra: "The Theory of Tax Evasion and Policy Formulation: A Game Theoretic Approach", International Journal of Engineering, Business and Enterprise Applications, 4(1), 31-34, 2013.
9. Dipak Kumar Satpathi and Ayush Agarwal: "A Game Theoretical Approach to designing Market Trading Strategies," American International Journal of Research in Humanities, Arts and Social Sciences, 2(2), 108-110, 2013.
10. Dipak Kumar Satpathi and A Ramu: "Circular Model for Mucus Transport in the Airways due to Air Motion," International Journal of Emerging Technologies in Computational and Applied Sciences, 5(5), 513-517, 2013.
11. Dipak Kumar Satpathi, B Jagadish Chandra and A Ramu: "An Expository Analysis of Tax Evasion and Policy Formulation using Game Theory", International Journal of Engineering, Business and Enterprise Applications, 5(2), 121-124, 2013.
12. G Sudha, Addepalli Ramu, Dipak Satpathi and J Sucharitha: "Converging Shock Waves in Stellar Atmosphere Under the action of Monochromatic Radiation", International Journal of Computational and Applied Mathematics, 8(2), 173-182, 2013.
13. Dipak kumar Satpathi and Addepalli Ramu: "A Laminar Flow Model for Mucous Gel Transport in a Cough Machine Simulating Trachea: Effect of Surfactant as a Sol Phase Layer", Open Journal of Applied Sciences, 3, 312-317, 2013.
14. Narsimhulu Dunna, Addepalli Ramu and Dipak Kumar Satpathi: "Similarity solutions to shock waves in non-ideal magnetogasdynamics," AIP Conf. Proc. 1558, 860 -864, 2013.
15. Madhu Poornima Mamidala, Anupama Polinedi, Praveen Kumar P.T.V, N. Rajesh, Om sai Ramesh Vallamkonda, V rajesh Udani, Nidhi Singhal, Vidya Rajesh: " Prenatal, perinatal and neonatal risk factors of Autism Spectrum Disorder : A comprehensive epidemiological assessment from India", Research in Developmental Disabilities, vol. 34, 3004-3013, 2013.
16. Sumit Kumar Vishwakarma, Shishir Gupta, Dinesh Kumar Majhi, Influence of rigid boundary on the Love wave propagation in elastic layer with void pores, Acta Mechanica Solida Sinica, 25 (5), 551- 558, 2013.

17. Sumit Kumar Vishwakarma, Shishir Gupta, Existence of torsional wave in an Earth's crustal layer lying over a sandy mantle, *Journal of earth system science*, 122 (5), 1411-1421, 2013.
18. Sumit Kumar Vishwakarma, Shishir Gupta, Rayleigh wave propagation: A case wise study in a layer over a half space under the effect of rigid boundary, *Archive of Civil and Mechanical Engineering*, 26 (5), 551-558 (2013)
19. Manish Kumar, Image encryption using TSRMSC associated with DWT, *American Institute of Physics Conference Proceedings*, 1558, 865--868, 2013.
20. Akhilesh Prasad, Manoj Kumar Singh and Manish Kumar, The continuous fractional wave packet transform accepted for publication in *American Institute of Physics Conference Proceedings*, 1558, 856-859, 2013.
21. Jaganmohan Jonnalagadda, Solutions of perturbed linear nabla fractional difference equations, *Differential Equations and Dynamical Systems*, DOI 10.1007/s12591-013-0179-1, 2013.
22. Jaganmohan Jonnalagadda, Solutions of Perturbed Nonlinear Nabla Fractional Difference Equations, *Novi Sad Journal of Mathematics*, 43(2), 125 – 138, 2013.
23. J.Jagan Mohan and G.V.S.R. Deekshitulu, Difference inequalities of fractional order, *Proyecciones Journal of Mathematics*, 32(3), 199 – 213, 2013.

**Conferences attended/papers presented:**

1. B.Mishra: Participated in the "International Workshop on Applications of General Theory of Relativity to Large Scale structures in universe-2013" held at Department of Mathematics and Physics, NIT, Patna during 23rd Dec 2013- 3rd Jan. 2014.
2. P.K. Sahoo: Participated in the "International Workshop on "Applications of general theory of relativity to large-scale structures in our universe", held at NIT, Patna during 23rd Dec 2013-3rd Jan 2014.
3. Manish Kumar: 11th International Conference of Numerical Analysis and Pure and Applied Mathematics ( ICNAAM 2013 ) during September 21-27, 2013, Rhodes, GREECE and I had presented two papers (a) "Image encryption using TSRMSC associated with DWT" (b) "The continuous fractional wave packet transform".
4. T.S.L. Radhika: Organizing member and the chairperson for the session 'Women In Engineering' in IEEE Prime Asia 2013, held in GITAM, Visakhapatnam, Dec 19-21.
5. T.S.L. Radhika: Invited as a Chair person for a session on BioMedical Engineering –I at the International conference on LSBE, Osaka, Nov, 2013.
6. T.S.L Radhika and M.B Srinivas: Estimation of Arterial Stiffness through Pulse Transit Time measurement, International Conference on Life Sciences and Biological Engineering, Osaka, Japan, Nov, 2013.

**Invited Talks given by BITS faculty:**

- B. Mishra: Delivered a plenary lecture entitled "Some cosmological model of the universe in alternative theories of gravitation", First International Conference on Mathematical Modeling and Optimization Techniques in Science and Engineering" (MMOTSE 2013), held at SSBT's College of Engineering and Technology, Jalgaon during 26th – 27th July, 2013.
- B. Mishra: Delivered an invited lecture entitled "Some Aspects of Graph theory", Applications of Mathematics in Various Engineering Branches and Bio-sciences", held at CBIT, Hyderabad during 13th-14th Aug, 2013.
- B. Mishra: Delivered an invited lecture entitled "Cosmological model with Wet Dark Fluid in alternative theories of gravitation", National Conference on Pure and Applied Mathematics (NCPAM-2013), held at College of Engineering, Pune, during 17th – 19th December, 2013.
- T.S.L. Radhika: Invited as a Speaker at a one day national work shop on "Mathematics and its Applications in Engineering" at Siddhardha Institute of Engineering and Technology, IbrahimPatnam, Hyderabad, Oct,2013.
- T.S.L. Radhika: Delivered a Guest lecture on " Role of Mathematical modeling in the VLSI design" in ISTE sponsored workshop at the Post Graduate Department of Electronics and Communication Engineering, Sree Buddha College of Engineering, Pattoor, Kerala, Sept, 2013.

- T.S.L. Radhika: Attended and delivered a guest lecture on the Mathematical Model to Measure Arterial Stiffness in a certificate course in global health organized at BITS- Pilani, Goa Campus, June, 2013.
- Ramu: Delivered a lecture under the Faculty Development Program at Vasavi Engineering college, Hyderabad on December 28, 2013.

**Invited talks arranged in the department:**

- Prof. Iyengar TKV, Former Professor, Mathematics, NIT, Warangal.: “Some Simple ideas in Mathematics with exciting implications”, on February 5, 2013.
- Mr. Atul Mishra, Ex-senior-scientist, BARC, BITS-Alumni : “Brain Teaser in Discrete Mathematics”, on February 13, 2013.
- Prof. S. Nanda, Former Professor, Mathematics, IIT Kharagpur , Former Vice-Chancellor, North Odisha University, Odisha , “Fuzzy Logic”, on March 1, 2013.
- Prof. D.R.K.Reddy, Former Professor, Applied Mathematics, Andhra University, interacted with the faculty members on the topic “Cosmological modeling of the Universe”, on December 16, 2013.

**Awards and recognitions won by faculty and students**

- B.Mishra: Member, Scientific Organizing Committee, “First International Conference on Mathematical Modeling and Optimization Techniques in Science and Engineering” (MMOTSE 2013), held at SSBT's College of Engineering and Technology, Jalgaon during 26th – 27th July, 2013.
- B.Mishra: Resource Person, “National Conference on Pure and Applied Mathematics (NCPAM-2013), held at College of Engineering, Pune, during 17th – 19th December, 2013.
- Ramu: Member, Academic council, Anurag Group of Colleges and Vasavi Engineering College.

**Faculty Development, International Collaboration & Industry Immersion: NA**

**Significant new equipments/experimental facility added during the year: NA**

**Departmental association/club activities:**

The following events were organized by the Mathematics Association (Axiom) 2013

- 12th Sep: Fresher’s meet
- 17th Sep: Rubix Cube workshop – Nearly 80 students participated in the event. Training was given by the students from our AXIOM association.
- 11th Oct: n- CRYPTON – around 130 teams, each with two members participated from various colleges from AP. Three prizes were given for 3 best performers.
- 12th Oct: Boxed – in : around 80 students from various colleges in AP participated. First, second and third position students were given prizes.
- 12th Oct: Paper Presentations – around 10 papers were shortlisted for final presentation. Students from various colleges in AP have participated in this event. Dr. Manish and Dr. Radhika TSL acted as judges for the event. Two papers were selected for the first and second position.

**Major maintenance, renovations or new construction reports: NA**

**Major equipment’s acquired during the year: NA**



**B3.10.11 Pharmacy**

Number of faculty members

<b>Senior Professors, Professors</b>	2
<b>Associate Professors</b>	-
<b>Assistant Professors</b>	8
<b>Lecturers</b>	2
<b>Visiting Faculty</b>	-

**Head of the Department:** V. Vamsi Krishna Venuganti**Contact details:** Email: vamsi@hyderabad.bits-pilani.ac.in; Phone: 040-66303581**Number of PhD Scholars:** 36 full time and 4 part time**Sponsored Research activities: Ongoing projects:**

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	DST-FIST project; Department of Pharmacy project	DST-FIST Project Department of Pharmacy	DST-FIST	60.00	2012-2017
2	Development of library of heterocyclic compounds for the treatment of tuberculosis - multi-drug resistant tuberculosis and persistent tuberculosis (modified version)	Dr. D. Sriram	DST	23.80	2011-2014
3	Structure based rational design and synthesis of inhibitors for various enzymes of HIV	Dr. Sriram	DBT-ICMR	56.17	2012-2015
4	Development of novel isocitrate lyase inhibitors for the treatment of persistent tuberculosis	Dr. D. Sriram	ICMR	15.00	2011-2014
5	Development and analysis of novel inhibitors against mtb glmu-	Dr. D. Sriram & Dr. P. Yogeewari	CSIR-OSDD	39.56	2012-2015
6	Design and synthesis of pharmacophoric hybrids as potential leads for the treatment of neuropathic pain	Dr. P. Yogeewari	CSIR	36.76	2012-2015
7	Novel molecular mechanism involving adenosine and adenosine receptors in acceleration of alcohol induced hepatic fibrosis.	Dr. P. Yogeewari	CSIR	26.76	2012-2015
8	Discovery of novel modulators of NAD (+) dependant protein deacetylase SIRT1 for the treatment of various human disorders	Dr. P. Yogeewari	DBT	30.00	2011-2014

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
9	Development of antiepileptic leads to suppress hippocampal epileptic seizures	Dr. P. Yogeewari	DST Indo-Ukraine Joint Project		2012-2014
10	Drug discovery of inhibitors of the protease of peripheral macrophages and microglial cells in the spinal cord for the treatment of neuropathic pain	Dr. P. Yogeewari	DBT-Neuroresearch project	31.12	2011-2014
11	Development, synthesis, and testing of novel anti-HIV drugs	Dr. D. Sriram & Dr. P. Yogeewari	DST Indo-Brazilian_South African		2011-2014
12	Drug discovery of inhibitors of the cathepsin S in the spinal cord for the treatment of neuropathic pain	Dr. P. Yogeewari	DST	35.00	2011-2014
13	Development of library of heterocyclic compounds for the treatment of tuberculosis - multi-drug resistant tuberculosis and persistent tuberculosis.	Dr. D. Sriram & Dr. P. Yogeewari	ICMR	23.80	2011-2014
14	Structure-guided design of new antibacterial agents against dormant mycobacterium tuberculosis	Dr. D. Sriram & Dr. P. Yogeewari	DBT Indo-Sweden joint program	64.88	2009-2015
15	Design, characterization and pharmacokinetic evaluation of nanocarriers for antiretroviral drug delivery in the effective treatment of HIV/AIDS.	Dr. Punna Rao	DST- Fast track for young scientist	26.00	2011-2014
16	Design, pharmacokinetic and pharmacodynamic evaluation of nanocarriers for selective estrogen receptor modulator delivery in the effective treatment of postmenopausal osteoporosis.	Dr. Punna Rao	UGC	7.83	2011-2014
17	Lead Identification From Rubiaceae Plants For Treating Cancer	Dr. A. Sajeli Begum	BITS-Research Initiation Grant	2.00	2012-2014
18	Quality control studies on safflower petals of different Indian cultivates as per WHO guidelines. 2011-2014	Dr. A. Sajeli Begum	UGC	9.44	2011-2014
19	Investigation of natural coumarin lignans and their newer synthetic analogs as cyclooxygenase (COX-2) and tumor necrosis factor (TNF- $\alpha$ ) inhibitory agents in rheumatoid arthritis.	Dr. A. Sajeli Begum	CSIR	21.00	2012-2015

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
20	Transcutaneous delivery of macromolecules using layer-by-layer assembly to treat skin conditions	Dr. V.V. Vamsi Krishna	DST- Fast track for young scientist	23.00	2012-2015

#### Projects sanctioned during the year

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	Transcutaneous delivery of liposome-siRNA complex to treat skin cancer. Department of Science and Technology	Dr. V.V. Vamsi Krishna	DST	29.26	2013- 2016

#### Publications:

- Seal, P. Yogeeswari, D. Sriram, OSD D Consortium, DJ Wild, Enhanced ranking of PknB inhibitors using data fusion methods. *J. Cheminform.* 2013, 5, 1-14.
- V.U. Jean Kumar, O. Poyraz, S. Saxena, R. Schnell, P. Yogeeswari, G. Schneider, D. Sriram, Discovery of novel inhibitors targeting the Mycobacterium tuberculosis O-acetylserine sulphydrylase (CysK1) using virtual high-throughput screening, *Bioorg. Med. Chem. Lett.* 2013, 23, 1182-1186.
- M. Mujaheed, R.G. Gonnade, P. Yogeeswari, D. Sriram, M. Muthukrishnan, Synthesis and antitubercular activity of amino alcohol fused spirochromone conjugates, *Bioorg. Med. Chem. Lett.* 2013, 23, 1416-1419.
- R.K. Mishra, A. Reshma, D. Sriram, P. Yogeeswari, Potential Role of Rho Kinase Inhibitors in Combating Diabetes-related Complications including Diabetic Neuropathy- A Review. *Curr. Diabetes Rev.*, 2013, 9, 249-266.
- P. Ravichand, D. Sriram, P. Yogeeswari, R. Vadrevu, Multiple E-Pharmacophore Modeling combined with High-Throughput Virtual Screening and Docking to Identify Potential Inhibitors of Beta Secretase, *Mol. Informatics*, 2013, 32, 2-15.
- P. Yogeeswari, M. Sharma, G. Samala, M. Gangadhar, S. Karthick, S. Mallipreddi, A. Semwal, D. Sriram, Discovery of novel tetrahydropyrazolo [4,3-c] pyridines for the treatment of neuropathic pain: Synthesis and neuropharmacology, *Eur. J. Med. Chem.*, 2013, 66, 211-220.
- N. Panathur, U. Dalimba, PV Koushik, M. Alvala, P. Yogeeswari, D. Sriram, V. Kumar, Identification and characterization of novel indole based small molecules as anticancer agents through SIRT1 inhibition, *Eur. J. Med. Chem.* 2013, 69C, 125-138.
- R. Alokam, V.U. Jean Kumar, J. Padma Sridevi, S.S. Matikonda, S. Peddi, M. Alvala, P. Yogeeswari, D. Sriram, Identification and Structure-Activity Relationship study of Carvacrol derivatives as Mycobacterium tuberculosis, Chorismate mutase inhibitors, *J. Enzyme Inhibition Med. Chem.*, 2013, In Press.
- T. Yempala, JP Sridevi, P. Yogeeswari, D. Sriram, S. Kantevari, Design, synthesis and antitubercular evaluation of novel 2-substituted-3H-benzofuro benzofurans via palladium-copper catalysed Sonagashira coupling reaction. *Bioorg. Med. Chem. Lett.* 2013, 23, 5393-5396.
- S. Ganesh, P.B. Devi, N. Radhika, P. Yogeeswari, D. Sriram, Development of 3-phenyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridine derivatives as novel Mycobacterium tuberculosis pantothenate synthetase inhibitors, *Eur. J. Med. Chem.* 2013, 69, 356-364.
- V. Hema, P.R. Avula, S.R. Challa, M. Gangadhar, P. Yogeeswari, D. Sriram, Relationship between plasma levels and the anti-neuropathic pain effect of Lamotrigine in rat model, *J. Pharm. Res.* 2013, 6, 780-784.
- H.N. Nagesh, K.M. Naidu, D.H. Rao, J.P. Sridevi, D. Sriram, P. Yogeeswari, K.V. Chandrasekhar, Design, synthesis and evaluation of 6-(4-(substituted-1H-1,2,3-triazol-4-

- yl)methyl)piperazin-1-yl)phenanthridine analogues as antimycobacterial agents. *Bioorg. Med. Chem. Lett.* 2013, 23, 6805-6810.
13. V.U. Jean Kumar, J. Renuka, P. Santosh, V. Soni, J.P. Sridevi, P. Suryadevara, P. Yogeeswari, D. Sriram, Thiazole aminopiperidine hybrid analogues: Design and synthesis of novel Mycobacterium tuberculosis GyrB inhibitors. *Eur. J. Med. Chem.* 2013, 70, 143-153.
  14. T. Yempala, J.P. Sridevi, P. Yogeeswari, D. Sriram, S. Kantevari, Rational design and synthesis of novel dibenzo[b,d]furan-1,2,3-triazole conjugates as potent inhibitors of Mycobacterium tuberculosis. *Eur. J. Med. Chem.* 2013, 71C, 160-167.
  15. N. Panathur, U. Dalimba, P. V. Koushik, M. Alvala, P. Yogeeswari, D. Sriram, V. Kumar. Identification and characterization of novel indole based small molecules as anticancer agents through SIRT1 inhibition. *Eur. J. Med. Chem.* 69, 125–138, 2013.
  16. O. Poyraz, V.U. Jeankumar, S. Saxena, R. Schnell, M. Haraldsson, P. Yogeeswari, D. Sriram, G. Schneider G, Structure-guided design of novel thiazolidine inhibitors of o-acetyl serine sulfhydrylase from mycobacterium tuberculosis. *J. Med. Chem.* 56, 6457-6466, 2013.
  17. R. Alvala, M. Alvala, V. Sama, D. Sriram, J. V. Ullas, M.B. Reddy, Scientific evidence for traditional claim of anti-obesity activity of Tecomella undulata bark. *J. Ethnopharmacol.* 148, 441-448, 2013.
  18. R. Palakurti, D. Sriram, P. Yogeeswari, R. Vadrevu, Multiple e-pharmacophore modeling combined with high-throughput virtual screening and docking to identify potential inhibitors of  $\beta$ -secretase (BACE1). *Mol. Inf.* 32, 385 – 398, 2013.
  19. U.C. Kumar, B.V.S.S. Kumar, S. Mahmood, D. Sriram, P. K. Sahu, S. Pulakanam, L. Ballell, D.A. Gomez, S. Malik, S. Jarp, Discovery of novel InhA reductase inhibitors: application of pharmacophore- and shape-based screening approach. *Future Med Chem.* 5, 249-59, 2013.
  20. V. Judge, B. Narasimhan, M. Ahuja, D. Sriram, P. Yogeeswari, E. De Clercq, C. Pannecouque, J. Balzarini, Synthesis, antimycobacterial, antiviral, antimicrobial activity and QSAR studies of N2-acyl isonicotinic acid hydrazide derivatives. *Med. Chem.* 9, 53-76, 2013.
  21. R. Vats, P.R. Ravi, V. Dalal, N. Aditya, Polymeric nanoparticles for oral delivery of lopinavir: Optimization, physical characterization, in-vitro, ex-vivo and in-vivo studies. *Drug Dev. Ind. Pharm.* (Early Online. doi:10.3109/03639045.2013.850710).
  22. P.R. Ravi, N. Aditya, S. Patil, L. Cherian, Nasal in-situ gels for rasagiline mesylate: improvement in bioavailability and brain localization. *Drug Delivery.* (Early Online. doi:10.3109/10717544.2013.860501).
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  24. S. Begum, A. Basha, G. Raghavendra, M. V. Nagesh Kumar, Y. Singh, J. V. Patil, Y. Tanemura, Y. Fujimoto, Isolation and characterization of antimicrobial compounds from Pseudomonas fluorescence and their efficacy on sorghum grain mold fungi. *Chemistry and BioDiversity.* 10, 1-9, 2013.
  25. S. Mahibalan, R. Sharma, A. Vyas, S. A. Basha, A. S. Begum, Assessment of extraction techniques for total phenolics and flavonoids from Annona muricata seeds. *Journal of Indian Chemical Society,* 90, 1-7, 2013.
  26. D. pandey, S. K. Prasad, A. S. Begum, S. Hemalatha, A. K. Wahi, Pharmacognostical standardization and isolation of ergosterol from Melothria maderaspatana Linn. *Int. J. Food Prop.* 2013: 121207123314003.
  27. P. K. Mandapalli, S. Labala, D. Vanamala, M. P. Koranglekar, L. A. Sakimalla, V. V.K. Venuganti. Influence of charge on encapsulation and release behavior of small molecules in self-assembled layer-by-layer microcapsules. *Drug Delivery* (early online, <http://informahealthcare.com/doi/abs/10.3109/10717544.2013.867381>).

**Conferences attended/papers presented:**

1. Mishra R.K., Matharasala G., Srivastav G., Singhal S.M., Sriram, D., Yogeeswari, P., Evaluation of antinociceptive properties of novel Rho Kinase inhibitors using animal models of neuropathic pain, 46th Annual Congress of the Indian Pharmacological Society IPSCON-2013, 16-18th December 2013, Bangalore, India.
2. Matharasala G., Mishra R.K., Srivastav G., Singhal S.M., Sriram, D., Yogeeswari, P., Novel semicarbazone derivatives effective against Diabetic peripheral neuropathy, 46th Annual Congress of the Indian Pharmacological Society IPSCON-2013, 16-18th December 2013, Bangalore, India.

3. Saketh, S.D., Reshma, A., Srikant, V., Sriram, D., Yogeewari, P., BIA-6: A novel AKT inhibitor with potent activity in lung cancer, 15th World Conference on Lung Cancer, 27-30 October 2013, Sydney, Australia.
4. Madhu Babu, B., D. Sriram, P. Yogeewari, Targeting microglial cathpsin S to treat neuropathic pain: Drug design and biological evaluation, 8th Congress of the European Federation of IASP Chapters-Pain in Europe VIII, 9-12 October 2013, Florence, Italy.
5. P. Yogeewari, R.K. Mishra, A. Semwal, D. Sriram, Evaluation of antinociceptive properties of novel curcumin derivatives using animal models of neuropathic pain, 5th ASEAPS (Association of South-East Asian Pain Societies Conference), Pain: The Unseen Disease, 2nd-5th May 2013, Singapore
6. J. T. Patrisha, D. Sriram, P. Yogeewari, Discovery of novel small molecule inhibitors of Human immunodeficiency virus (HIV) protease: Pharmacophore modeling, 3D QSAR studies and High-throughput screening, 2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad.
7. B. K. Andrews, V.U. Jean Kumar, J. Renuka, P. Yogeewari, D. Sriram, Discovery of novel benzimidazole class of antibacterial agents targeting the ATPase domains of DNA gyrase, 2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad.
8. A.T. Dharmaraja, A. Mallika, D. Sriram, P. Yogeewari, H. Chakrapani, Small molecule reactive oxygen species generator as antimycobacterial agents, 2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad.
9. M. Siddharth Sai, V.U. Jean Kumar, A. Reshma, P. Yogeewari, D. Sriram, In-Silico design, Synthesis and in-vitro screening of novel inhibitors of Chorismate mutase enzyme involved in Shikimate pathway of Mycobacterium tuberculosis, 2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad.
10. P. Ganesh, V.U. Jean Kumar, P. Sridevi, P. Yogeewari, D. Sriram, Development of novel substituted benzoxazolinone derivatives as potential antitubercular agents, 2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad.
11. M. Brahmam, J. Renuka, V.U. Jean Kumar, P. Yogeewari, D. Sriram, In-Silico discovery of novel phenylenediamine class of antibacterials as potential DNA gyrase inhibitors, 2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad.
12. P. Santosh, V.U. Jean Kumar, A. Reshma, D. Sriram, P. Yogeewari, Development of carvacrol derivatives as potential inhibitors of MTB chorismate mutase, 2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad.
13. S. Sahithi, J. Renuka, P. Yogeewari, D. Sriram, In-Silico Design and in-vitro assay of inhibitors of pathogenic Staphylococcus aureus DNA gyrase, 5th International Symposium of Drug development for Orphan/Neglected Diseases, 26-28 February 2013, Lucknow.
14. P. Santosh, V.U. Jean Kumar, S. Saxena, P. Yogeewari, D. Sriram, In-Silico Design and Synthesis of Novel Nitrothiazole derivatives as potential inhibitors of MTB CysK1, 5th International Symposium of Drug development for Orphan/Neglected Diseases, 26-28 February 2013, Lucknow.
15. S. Begum, Isolation and identification of chemical constituents of *Abutilon indicum*. International Conference and Exhibition on Pharmacognosy, Phytochemistry and Natural Products, 2013, Oct 21-23, Hyderabad, India.
16. S. Begum, Identification and structure elucidation of cleomiscosins using spectroscopy. International Conference and Exhibition on Pharmacognosy, Phytochemistry and Natural Products, 2013, Oct 21-23, Hyderabad, India.
17. S. Begum, In-vitro anticancer assay of *Hedyotis umbellata* on ACG-Gastric cell line and identification of major constituents. International Conference on Bioactive Phytochemicals and Therapeutics, 2013, April 5-7, Annamalai University, Tamilnadu.
18. S. Begum, Characterisation of potential phyto-regioisomers using nuclear magnetic resonance spectroscopy. International Conference on Bioactive Phytochemicals and Therapeutics, 2013, April 5-7, Annamalai University, Tamilnadu.
19. N. Aditya, R. Vats, H. Kathuria, P.R. Ravi, Solid lipid nanoparticles for oral delivery of raloxifene: optimization, pharmacokinetic evaluation, bio-distribution and uptake studies. 13th International Symposium of Controlled Release Society, Indian Chapter, 01/2013, Mumbai, India.
20. N. Aditya, R. Vats, P.R. Ravi, Self-organizing soyalecithin-chitosan nanoparticles for oral delivery of raloxifene. 3rd Nano Today Conference, Biopolis, 12/2013, Singapore.

21. R Vats, Aditya N and PR Ravi. Enhanced oral bioavailability of lopinavir from pullulan acetate nanoparticles: in vitro and in vivo evaluation. 3rd Nano Today Conference, Biopolis, 12/2013, Singapore.
22. H. Kathuria, N. Aditya, P.R. Ravi, Raloxifene loaded SLN and NLC: comparison of in vitro properties and in vivo behavior after oral administration in rats. 3rd Nano Today Conference, Biopolis, 12/2013, Singapore.
23. P. K. Mandapalli, V. V.K. Venuganti, Influence of charge on encapsulation and release of small molecules from PSS/PAH layer by layer microcapsules. 65th Indian Pharmaceutical Congress, Dec' 20-22, 2013, New Delhi, India.
24. S. Labala, S. Bhatnagar, P. K. Mandapalli, V. V. K. Venuganti, Preparation and characterization of self-assembled layer-by-layer microcapsules to deliver model protein. 65th Indian Pharmaceutical Congress, Dec' 20-22, 2013, New Delhi, India.
25. P.K. Mandapalli, D. Vanamala, L. Sakimalla, V. V. K. Venuganti, Layer-by-layer encapsulated imatinib mesylate: in-vitro release, cell viability and bio-distribution studies. AAPS Annual Meeting and Exposition 2013, San Antonio, USA.
26. P. K. Mandapalli, M. P. Koranglekar, V. V. K. Venuganti, Influence of physico-chemical properties of model molecules on encapsulation into self-assembled layer-by-layer microcapsules. CRS - Indian Chapter 13th International Symposium, Jan' 2013, Mumbai, India.

#### Invited Talks given by BITS faculty:

Dr. P. Yogeewari

- Invited Speaker on "Computational tools to develop chemical libraries for Drug Discovery" delivered at the "National Conference on Frontiers of Chemical Research" organised by Department of Chemistry, JNTU, Hyderabad on 25-26 October 2013, Hyderabad, India.
- Invited Research Lecture on "Drug Design Strategies for therapeutic intervention of neurological disorders" delivered at Bogomoletz Institute of Physiology on 24th May 2013, Kiev, Ukraine.
- Guest lecture delivered on "Structure-based drug design approach for the identification of small molecule inhibitor of various HIV enzymes" delivered at K-RITH (KwaZulu-Natal- Research Institute for TB and HIV) on 25th February 2013, Durban, South Africa

Dr. Vamsi Venuganti

- Nanocarriers for gene delivery. Pharma Apotheosis on Nanocarriers and DOE, CES College of Pharmacy. March 1st 2013, Kurnool, India.
- Current Developments in Pharmaceutical Sciences and legal implications. NALSAR workshop on "enhancing science and technology inputs in legal education." Feb' 28th 2013, Hyderabad, India.
- Breaching the skin barrier to deliver therapeutic agents. India-Srilanka workshop on transdermal drug delivery systems. Feb' 4th 2013, Vijayawada, India.

#### Invited talks arranged in the department:

- Presenter: Dr Anu Puri, National Cancer Institute, Maryland, USA  
Title of talk: Development of Lipid-Based Nanoparticles for Targeted Delivery of Cancer Therapeutics  
Date: 19th March 2013
- Presenter: Dr Subhrakanti Chakrabarti, Shantha Biotechnics Ltd., Hyderabad  
Title of talk: Development, scale-up, validation and manufacturing of recombinant human erythropoietin  
Date: 13th April 2013
- Presenter: Dr Undurti N Das, Director, KIMS Foundation and Research Centre  
Title of talk: Is type 2 diabetes mellitus a disorder of the brain?  
Date: 27th Sep 2013
- Presenter: Dr Usha Raman, Head, Department of Communication, University of Hyderabad  
Title of talk: Tools and techniques of technical communication  
Date: 1st Oct 2013
- Presenter: Dr J. Narashima Murthy, Kakatiya University  
Title of talk: Peptide amphiphiles as building blocks for bio-nanomaterials  
Date: 21st Nov 2013

**Awards and recognitions won by faculty and students**

1. Prof. D Sriram: UGC researcher award
2. Dr. P. Yogeewari:
  - IASP 2014 Award for Excellence in Pain Research and Management in Developing Countries Award under the Basic Science research category to be received at the 15th World Congress on Pain, Buenos Aires, Argentina in October 2014.
  - Recipient of INDIAN COUNCIL OF MEDICAL RESEARCH “Shakuntala Amir Chand Prize 2010” for excellent biomedical research honored in August 2013.
3. Mr. Rahul Vats: Received DST International Travel Support for presenting poster in 3rd Nano Today Conference, Singapore.
4. P. K. Mandapalli (Research Scholar): Received FDD section travel award for poster presentation at AAPS Annual Meeting, San Antonio, USA.

**Faculty Development, International Collaboration & Industry Immersion**

- Under Industry Immersion programme Dr. A. S. Begum visited Natural Remedies, Bangalore in year 2013

**Significant new equipments/experimental facility added during the year:**

1. Malvern Zetasizer Nano ZS
2. Spectramax Multi-mode plate reader
3. Elementar Element Analyzer
4. Cooling centrifuge
5. Cell culture facility
6. Fume hoods

**Departmental association/club activities:**

**Seminars:** Weekly seminars are being conducted by Department of Pharmacy for research scholars to showcase their research work.

**Departmental Magazine:** Pharmacy Research scholars Bimonthly Epistle (PROBE) is a bimonthly magazine that provide research scholars to wise their views on various scientific topics.

**Major maintenance, renovations or new construction reports:**

New partitions were made to provide research scholars working space

**Major equipments acquired during the year:** NA

**B3.10.12 Physics**

Number of faculty members : 17

<b>Senior Professors, Professors</b>	1
<b>Associate Professors</b>	1
<b>Assistant Professors</b>	14
<b>Lecturers</b>	-
<b>Visiting Faculty</b>	1

**Head of the Department:** Dr. Kannan Ramaswamy

**Contact details:** 040-66303526, 09010202900

**Number of PhD Scholars:** 5

**Sponsored Research activities:****Ongoing projects:**

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (in Lakhs)	Duration
1	Development of magneto impedance sensors for bio-cells detection, 2012	Dr. V. Satyanarayana Murthy	DST-Fast track	23.00	3 years
2	Site specific immobilization of a single DNA molecule, 2011	Prof. Souri Banerjee	BRNS-DAE	19.00	3 years
3	Investigation of magneto-optical effects in composite magneto plasmonic nanostructures for sensing application, 2012	Dr. Kannan Ramaswamy	DST-SERB	32.70	3 Years
4	Study of Gravitational Anyons in 2+1 Dimensions, 2012	Dr. Rahul Nigam	RIG	2.00	2 Years

**Projects sanctioned during the year**

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	Study of decoherence and entanglement in non-linear systems and their applications, 2013	Dr. K. V. S. Chaitanya	DST-Fast Track	14.16	3 years
2	Equation of state of hot and dense matter with antikaon condensed matter for core-collapse supernovae, 2013	Dr. Sarmistha Banik	UGC	6.00	3 years
3	On the formation of Dwarf Elliptical Galaxies, 2013	Dr. Rahul Nigam	UGC	6.00	3 years

**Publications:**

- Sarmistha Banik, "Role of hyperons in black hole formation", J. Phys. Conf. Series, 426, 012004, 2013
- Rajesh Kannan, S. Kalidasan, A. Santhana Krishnakumar, N. Rajesh and B. Harihara Venkataraman, "On integrated use of bio-polymer ceramic composites towards capacitor and environmental applications", Polymer Plastics Technology and Engineering (In print) 2013
- Asrarul Haque and S.D. Joglekar, "Causality in 1 + 1 dimensional Yukawa Model-II", Pramana, 81 (4), 2013

**Conferences attended/papers presented:**

- Rajesh Kannan, Harihara Venkataraman, "Effect of Samarium substitution on the structural and dielectric properties of Strontium Bismuth Tantalate Ceramics", National Conference on the Physics and Chemistry of Solids, April 12- April 13, 2013, Khammam, Andhra Pradesh



- Rajesh Kannan, HariharaVenkataraman, "Dielectric and electrical conductivity studies of undoped and samarium doped properties of Strontium Bismuth Tantalate Ceramics", National Conference on Solid State Ionics, December 22- December 24, 2013, IIT, Kharagpur
- V. Srinivasa Rao, Prashanth Patnaik, Kannan Ramaswamy, Srinivas Prakash Regalla and M. B. Srinivas, "Effect of Particles and Contaminants on the Static Response of a Rectangular MEMS Diaphragm Due to Adverse Clean Room Environment", IEEE Prime Asia Conference -2013, December 19 – December 21, Visakhapatnam, AndhraPradesh
- Souri Banerjee et al., "Combining AC Electroosmosis and Dielectrophoresis Effects in Rectangular and Triangular Electrode Systems for Trapping Spherical Particles", Comsol International conference, 2013.

#### **Invited Talks given by BITS faculty:**

- Dr. Kannan Ramaswamy "Nanoplasmonic: A route to ultrasensitive biosensing", VJIT, Hyderabad, December 2013 Andhra Pradesh
- Dr. Meenakshi Viswanathan, "Techniques in teaching pedagogy", VJIT, Hyderabad, November 2013
- Dr. Basudha Mishra, "Tau decays" in the working group of " Flavour Physics" in XIIIth Workshop on High Energy Physics Phenomenology held from 12th-21st December, 2013 in Puri, India
- Dr. Rahul Nigam, "On the decay of Dyonic Black Holes AMMCS, Wilfrid Laurier University, Waterloo Canada, 2013

#### **Invited talks arranged in the department:**

- Professor K. P. N Murthy, "Work Fluctuations and the Second Law of Thermodynamics", December 2013
- Professor Sarath Ananthamurthy, "Biophysics", November 2013
- Professor D. Sahadev, "Case for indigenous technology", February 2013
- Professor Ram Mohan, "Quantum Mechanics of Mobius Strip", November 2013
- Dr. Gottipatti, "Spinal Cord", February 2013

#### **Awards and recognitions won by faculty and students: NA**

#### **Faculty Development, International Collaboration & Industry Immersion:**

- Dr. Rahul Nigam is collaborating with Bonn University, Bonn, Germany
- Dr. Sarmistha Banik is collaborating with California Institute of Technology, Pasadena, USA

#### **Significant new equipments/experimental facility added during the year:**

- Scanning Tunneling Microscope
- Zeeman Effect Apparatus
- Water Chiller
- Closed Cycle Refrigerator
- Vibration free table
- Lakeshore Temperature Controller

#### **Departmental association/club activities:**

- Participated actively in the institute Techfest, ATMOS 2013
- Conducted a workshop along with Agilent Technology on Device Testing and Measurements
- **Major maintenance, renovations or new construction reports: NA**
- **Major equipments acquired during the year: NA**
  - Scanning Tunneling Microscope
  - Closed Cycle Refrigerator

### **B3.11 DIVISION/UNIT/CENTER-WISE ACTIVITY HIGHLIGHTS**

#### **Director's International Visits and Awards**

Director Prof V S Rao visited Princeton University wherein he has addressed post doctoral and graduating students in June, 2013.

Prof Rao visited MIT Media Labs to hold discussions on MIT Dly: Engineering the Eye workshop in June 2013.

Prof V S Rao, Director and Sr.Professor was honoured by TANA (Telugu Association of North America) as a Guest of Honour in May 2013 and felicitated for his great contribution in the areas of education and institution building.

Prof Rao was felicitated with "Eminent Educationist Award" by Indus Foundation during their Indo global education summit – 2013 held in November 2013 at Hyderabad.

#### **RESEARCH AND DEVELOPMENT**

The education system offers several opportunities to members of faculty to pursue research and involve students at all different levels through specialized projects, in the chosen research area. Research is promoted in the institution through the faculty development scheme and by encouraging faculty members to obtain funding from national and international agencies for sponsored research projects and to provide consultancy services. Presently, there are 24 faculty members and 119 research scholars, pursuing Ph. D. programs in identified thrust areas.

There are 25 research projects funded by various National and International funding agencies for about Rs.5,60,96,450. Details of approved research projects are enclosed in **Annexure 6(Part B3)**.

#### **Ph.D. Qualifying Examination**

Ph.D. qualifying examination was conducted at Hyderabad campus during the two semesters of (Feb and Sep) 2012. 35 candidates were declared successful in this examination.

#### **CENTRAL FACILITIES REPORT**

##### **LIBRARY**

The new library is very spacious with 45000 sqft area in two floors, fully air-conditioned, with modern and comfortable furniture for the users. Library has a seating capacity of 450 readers. It remains open from 0900 to 2300 hrs on all working days and from 0900 to 1700 hrs during weekends and other holidays.

The library has been using the LIBSYS Library Management Software to automate all its housekeeping activities. The library internet site has got the Web OPAC (Web enabled Online Public Access Catalogue). A facility on LIBSYS Web OPAC includes advance search options for books, journals, theses, CDs etc. The library site has been linked with the institute home page for external access. Students can access the library catalogue and the e-resources from their hostel rooms through LAN.

The library renders standard services like issuing of books; attending to reference queries, providing photocopies, inter library loans, etc for the faculty and students of the institute. The following are the highlights.

##### **Acquisition Section**

The Library has a collection of 23000 volumes and 4100 new volumes were added to the existing collection this year in different disciplines. These include emerging areas like Lean Technology, Leadership, Digital Libraries, Earthquake Engineering, Wireless Communication, Signal Processing, Robotics, Nano-technology, Micro-electromechanical Systems (MEMS), Bio-informatics, Biotechnology, Geographical Information Systems, Network Security, Embedded Systems, Grid Computing, Pervasive Computing, Software Testing and Data Warehousing/ Mining. A good number of fiction, general reading books, and case studies in Management, latest editions of handbooks, encyclopedias, yearbooks and books which are useful for campus recruitment were also added this year.

##### **E-resources**

Access to over 3500 e-journals and other important websites have been provided on the library site. Under the INDEST –AICTUE consortium, e-journals of the following publishers were made available:

- American society of civil Engineers (ASCE)
- ASCE Conference proceedings

- American Society of Mechanical Engineers (ASME)
- IEEE Explore
- Science Direct
- ACM
- Bentham Science Pharmacy

We are also an Associate Member of INFLIBNET and subscribed to the following Journals:

- JSTORE
- IOP (Institute of Physics)
- Nature

Journals Presently the Library subscribes to 93 printed journals including foreign journals. Useful articles, news, newspaper clippings are displayed on the notice board for the information of the readers. Besides, articles authored by institute faculty are displayed in a prominent place in the library.

#### Other Services

1. The library continues to keep the readers informed every week through regular display of all the books added to the library. A list of weekly/monthly additions is also made available to readers on the library site and also through e-mail to all the faculty . Special topical displays are also organized periodically.
2. The library facilitates in the Earn While You Learn Programme of the Institute wherein students assist in the library jobs like book data entry, spine labeling of books, bar-coding of books etc
3. Organized a Book Festival in association with Book Syndicate, our campus book store in October 2013. During the Book Festival faculty members were encouraged to suggest books for the library.
4. Free wireless internet (WIFI) access is available in the library

#### Library Statistics

The Library collection is growing steadily. The following table shows some of the significant statistical data:

1	Current library holdings	23000
2	Average number of books issued per day	192
3	Average number of readers visiting the library per day	1050
4	Books added during the year	4100
6	Number of print Journals subscribed	93
7	E journals made available on library site	3450
8	CD-ROM Collection	1205
9	Educational Video/DVD Collection	80
10	Total number of reading seats in the library	450
11	Library membership	3700

#### CENTRAL WORKSHOP

The Central Workshop imparts training to students and caters to the maintenance & fabrication needs of the Institute. Students' training involves training all first degree students through the course "Workshop Practice" by imparting skills in various manufacturing processes like machining, fitting, carpentry, smithy, foundry, sheet metal, electroplating, welding, etc. and two computer oriented exercises, CNC Programming using MasterCAM software and Manufacturing Simulation using FlexSim software. For B.E. (Mechanical Engineering) and B.E. (Manufacturing Engineering) degree courses, students are also imparted in-depth training in various other courses such as "Production Techniques", "Manufacturing Processes" and "Computer Aided Manufacturing". Apart from routine maintenance and training, the workshop also accepts fabrication jobs concerning the project works of students and also technical support for TBI works.

The workshop housed in 1800 sqm built up area comprises of the following sections: Machine shop, Welding, Electroplating, Fitting, Smithy, Sheet Metal, Carpentry, Foundry, Metrology & CAM Lab. Major equipment include Vertical Machining Center (Bridgeport VMC GX600), 9 Lathes, 2 Shapers, 1 Radial Drilling Machine, 1 Universal Milling Machine with indexing attachment, 1 Cylindrical Grinding Machine with

internal grinding attachment, 1 Tool and Cutter Grinder, 1 Pedestal Grinder, 1 Surface Grinder (HMT make), 1 Slotting Machine, 1 Open-Hearth Furnace for Smithy, 1 Gas-Fired Furnace for Foundry, 5 Wood-Working Lathes, 2 Arc-Welding equipment (1 Rectifier & 1 DC Welding Generator), 1 Oxy-Acetylene gas welding equipment, 1 Gauge Planner for wood works, Electroplating setup for zinc coating, Power Hacksaw and Metrology instruments. In addition, 1 CNC Lathe (HMT make), 1 Wire-cut EDM, 1 Hydraulic Press with 40 ton capacity and 1 TIG Welding equipment will be procured by Feb 2014.

The Central Workshop is due for further expansion to cater to the requirements of BE degree course in "Manufacturing Engineering".

### **COMMUNITY WELFARE UNIT**

**COMMUNITY WELFARE UNIT** The community welfare unit (CWU) coordinates the welfare and recreational activities of the students and staff members of the institute. In 2013, more consultants in specialized fields visited the medical centre regularly. The diagnostic needs of the campus residents are taken care of by trained staff visiting the medical centre from mediciti every morning to collect the samples.

The community celebrated for the first time a week long Ganesh Puja in the new stage in childrens Park. The celebrations ended with cultural performance from kids and adults in the community. The Independence Day, Republic Day and Gandhi Jayanthi celebrations in the campus were also organized by the CWU. Professionals visit the campus to teach musical instruments, classical Dance, keyboard, Yoga and Karate.

Childrens day was organized by CWU in the childrenspark with lots of games and funtime for kids on November 14.

The community also had a party on the New Yearseve with games, cultural programme, bonfire and dinner.

### **B3.12 STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVALS**

The campus has been bustling with activities of various clubs and associations in which students actively participated.

#### **Clubs**

The following established clubs have accelerated their activities by organizing various events and competitions on campus.

- Astronomy Club
- Bulls n Bears club
- Crux Club
- Dance Club
- Dramatics Club
- Shades Club
- English Language Activities Society (ELAS)
- Journal Club
- Music Club
- Photography Club
- Quiz Club
- VFX Club
- Automation and Robotics Club
- Martial arts Club
- Media Arts and Design Club
- Remote Control Club
- Film Making Club

Apart from these clubs, there are regional associations which depict their unique culture and tradition through various regional celebrations.

**Scholarships:**

Following scholarships are availed by the students of Hyderabad campus and the number of students who received them for this academic year are:

- Ashok Agarwal Scholarship –1 student
- Merit Scholarship – 124 students
- Merit Cum Need Scholarship – 1202 students
- DAAD Scholarship – 7 students

**Lecture Series:**

BITS Embriyo conducted Series of Lectures in the Academic Year as follows:

Date	Speaker	Topic
20-Aug	Kiran Bedi	Importance of Leadership in today's India
25-Aug	Mr. Chandra Prakash Khatri	Six point Somebody: MS despite low CG
26-Aug	Manish Chauhan	An Interactive Session on Global MS Opportunities
28-Aug	Anand Tandon	A talk on Stocks and Investment Management
31-Aug	Srivarsha Rajshekhar,	BITS2MSPHD: Knowing all about the application process
31-Aug	Adwait Gandhe	BITS2MSPHD: Knowing all about the application process
3-Sep	Dr Ayanna Howard	Pre-ATMOS
5-Sep	Prof Robert C Walcott	Pre-ATMOS
6-Sep	Prof Dave Irvine Halliday	Pre-ATMOS
12-Sep	Shivakumar Ganesan, Kartikeyan Krishnamurti, Siddharth Ramesh	What lies Ahead?
12-Sep	Shivakumar Ganesan, Kartikeyan Krishnamurti, Siddharth Ramesh	MBA MS Entrepreneurship
14-Sep	Sai Akhilendra N	All you need to know as an MBA aspirant
7-Oct	Rajroshan Sawhney	Have you planned an MBA career in ISB?
13-Oct	K Vijaya Rao	Atmos Conclave
13-Oct	Mani Shankar	Atmos Conclave
13-Oct	Venkat Sai Ram	Atmos Conclave
13-Oct	SK Nandy	Atmos Conclave
15-Oct	Suman Kapur	Rs.2 Blood Glucose Sensing: How?Why?What More?
20-Oct	Raghavendra Pradyumna	General Intercative Session on MS/PhD
21-Oct	Kartik Kumar	Road to Space

- Spreading knowledge about Finance to all the students on Campus and lecture series
- organized by Bulls n Bears
- Guest Lecture on Entrepreneurship as a Career was conducted by Alumni Affairs unit
- Guest Lecture on Occupational Health Hazards
- Awareness Program on entry through Young Leaders Program into Indian School of Business.

**Social and Environmental Activities:**

There are many social organizations actively working on campus like NIRMAAN, YUVA (Youth under visionary action), HOPE and SIRI (society involved in reinventing India on campus).

We have various events on campus like Cloth Donation, Tree Plantation, Blood Donation, Campus Clean Up programs, Career Planning, Medical Camps, Campus Tour for School Students.

**SCIO:****Veda 1.0**

As part of our various activities, we conducted a fest in BITS-Pilani Hyderabad Campus on January 27th, 2013 for students of 8, 9 and 10th standards of the various schools of Hyderabad. The aim of the fest was to expose the students to a vast amount of information and content that will help them to make a well-assessed career choice. We also held competitions like essay writing, elocution, quizzes.

**Vaidya- medical camp.**

A mega medical camp was conducted by the members and volunteers of SCIO in the premises of the primary school, Lakshmapur, a village in Shameerpet mandal in association with Apollo hospitals. There were more than 700 beneficiaries with free medicines and counselling provided to the villagers. We also provided facilities for free blood pressure, ECG and sugar check-up. The camp was inaugurated by local M.L.A, who was very proud and glad at our social service activities. Further, he promised us his immense support and wished us the best for our forthcoming activities. The medical camp was huge success, and the villagers were very much satisfied and happy with the services which were provided by the doctors.

**Campus Tour**

The students along with teachers of various schools in Hyderabad were invited to the campus. The day long visit around the picturesque campus with state-of-the-art facilities, labs and the educational departments proved to be inspirational and enlightened young minds. The extremely enthusiastic students were delighted to know about the different branches available in engineering and their future prospects.

**Veda 2.0**

A second edition of the fest was organised on November 17th, 2013 for the high-school students. The fest was aimed at describing various career choices available to them. The guests of the day were Shri K. Suresh Reddy (Former Speaker, AP State Legislative Assembly), Dr. G Satheesh Reddy, (Director, Research Centre Imarat (RCI)); Mr. K. Prabhakar Reddy (IAS-Former Secretary to the Chief Minister, Andhra Pradesh), Mr. Venkat Reddy (Retd. IPS Officer), Dr. Pradeep Patalay (General Practitioner), Dr. P.K. Thiruvikraman and Mr. Sivarama Krishna Kodali (Faculty, BITS-Pilani Hyderabad Campus).

**CRPF Event**

We had a counselling stall at CRPF National Exhibition held on the days of 29th and 30th December 2013. We were able to extend our help to nearly 300 student and parents.

**Nirmaan:****SAP (School adoption Program):**

Focusing on the quality of education offered at the Government schools, our project also aims at bridging the huge void created by the lack of English language skills to the kids there. We adopted 4 Govt. Schools near our campus.

As a result of the constant efforts that we have put in and the continuous support given by the Microsemi Corporate for developing the primary school in Malkaram Village, the School Adoption

Program-Malkaram, in collaboration with Microsemi corporate bagged second prize "For Innovative & Path breaking initiatives in the areas of Community Development & Environment Protection by SME member companies".

**Livelihood Opportunities:**

Empowering women and providing an alternate means of livelihood to the financially backward, our livelihood projects in the village target 53 women. We trained 50 women in skills like tailoring, candle making, interior design.

SAAKAR is a candle making project initiated by the livelihood operations team in October 2012 which aims at creating employment opportunities to the rural women. The women were taught candle

making techniques by a professional and they were given the raw materials to proceed further under the guidance of the student volunteers. The later stage involved the marketing of their candles by

the volunteers in various schools and townships across Hyderabad and also in our campus. We invested around 38,000 in this project and it made huge profits of around 20,000. With more than 50% of our investment as profits, we just made Saakar bigger and better.

#### **Community Development:**

The team looks after various needs of the community in areas of health, hygiene, awareness and other infrastructural lacks. We have conducted various medical camps and have spread awareness on sanitation and the like.

As an effort of contributing to the greenery of the nearby villages, we organized Tree plantation drives in Malkaram and Upparpally. Around 50 Neem saplings were planted in this event. To ensure that the students have enough knowledge on tree plantation and their maintenance, the necessity of roots and their role in absorption of nutrients was explained. Then the students were allowed to plant the saplings under the guidance of the volunteers. Yet another successfully conducted awareness and activity campaign came to an end on a happy and responsible note.

#### **Ignite- All round Education Project**

It is an education project aimed at providing value-based education to the under-privileged. Extending from schools, orphanages to a cluster of houses we were able to reach out to kids of different backgrounds and bridge the quality gap in education by adding a more practical component to it. We are able to reach 750 under privileged students in an academic year.

#### **National Service Scheme (NSS):**

Three units of National Service Scheme are functional in BITS-Pilani, Hyderabad Campus (BPHC). Currently there are 300 volunteers consisting of 174 male and 126 female students. The Chairman of NSS team is the Director, Prof. V. S. Rao and Dr. Samuel Tharu, serves as the Programme Coordinator.

- Surveys conducted in month of August, Eight villages to know the problems faced by the people living in the villages.
- Two village camps conducted in Mallamguda village during the months of August and November-2013.
  - Medical Camp, benefitting around 106 people.
  - Tree Plantation drive of planting around 50 plants
  - Marshal Arts workshop training 53 kids.
  - Painting the Govt. School in the village.
  - Drawing and Crafts competition.
  - Mass Tree Plantation drive in the campus and the city, distributing over 350 plants.
  - SAHARA, the cloth donation drive conducted in the end of semester.
  - Organized Voter Registration drive in campus on 16th and 20th November successfully registering 523 voters.
  - Organized Blood Donation drive during ATMOS-2013.
- Villages adopted for literacy: 2 (Adraspalli, & Mallamguda at BITS Pilani, Hyderabad Campus) (150 volunteers)
- Tree saplings planted: 1000 (BITS Pilani, Hyderabad Campus and Mallamguda) (150 volunteers)
- Immunization camps conducted: 2 (BITS Pilani, Hyderabad Campus) (50 volunteers)
- Blood donation camps conducted: 3 (250 units of blood was donated (350 volunteers)
- Health Camps conducted: 2 (Fluorosis and General checkup at Pothayapalli and Adraspalli) (85 volunteers)
- PEARL '13: Carbon footprint free annual cultural fest and Street Lights donated to Village Lakshmapur.
- Banning of plastic carry bags at BITS Pilani, Hyderabad Campus: From 01.03.2013

- International Women's day was celebrated on March 08, 2013 at BITS Pilani, Hyderabad Campus
- Earth Hour was held at BITS Pilani, Hyderabad Campus on March 2013.
- Independence Day celebrations in coordination with Community Welfare Division: 15.08.2013
- Orientation and review meeting for NSS volunteers
- Gandhi Jayanthi celebrations in coordination with Community Welfare Division: 02.10.2013
- SAHARA – Initiative to collect old clothes & stationery: 11-12.12.2013

#### **Sports Activities:**

Students have shown great enthusiasm in making use of the sports facilities provided in the campus. Each hostel has facilities for indoor games like Table-Tennis, Chess and Caroms. There are two shuttle badminton courts and grounds for Volley-ball, Foot-ball, Hockey, Cricket, Throw Ball and Lawn Tennis. Physical Education Department of SWD has been conducting friendly matches among Bhavans ( RIXA- Inter Bhawan Championship) and inter-discipline tournaments in all events apart from invitational competitions with other institutions like IIT Hyderabad, IIIT, NALSAR, CBIT etc.

First National wide Sports Festival ARENA-2013 was conducted on April 5, 6 & 7th with participation of 35 colleges in various events like Foot Ball, Volley Ball, Basket Ball, Tennis.

The Second edition of ARENA-2014 will be conducted on campus from Jan 30th to Feb 2<sup>nd</sup> considering the major colleges across India which is reputed in sports.

The SAC consist of State-of-the-art GYM separate for Boys and Girls. The Boys section is equipped with strength gaining single and multi-sections machines, electrical trainers and treadmills. While the Girls section is consist of Cardio Fitness machines, including electrical trainers and treadmills. Two Badminton courts with maple wood flooring, five Table Tennis tables, 16 carom boards, 30 chess sets and 3 Pool Tables are also available in the SAC.

Apart from indoor games Two Basketball and Two Lawn Tennis Nova acrylic cushion surface courts are also available with chain link fencing and flood lights.

#### **Awards and recognitions won by students: In BOSM -2013**

- Chess Team ( Mr. Bharat Krishna, 2012A7PS092H, Mr. Tejas Ravichandran, 2013A7PS164H, Mr. Satrasala Naga Phani Kumar, 2012A3PS024H, Mr. Krishna Prasad Bindumadhavan, ID No. 2013A8PS519H, Mr. Prashant Sharma, ID No. 2013A2PS529H) won 2 Gold, 1 Silver, 1 Bronze.
- Swimming Mr. Mokkapati Srikar, ID No. 2012A7PS111H won 2 Gold, 2 Bronze.
- Power Lifting : Mr. Siddarth Lenka, 2011A3PS300H, was won the 2 Gold Medals, 1 Silver Medal. Mr. Siddharth Sharma, 2011A4342H, won Silver in Power Lifting.
- Mr. Abdul Qadeer, ID No. 2011A7PS060H won Silver Medal
- Athletics: Mr. M. Praneeth, ID No. 2012B2B1929H won Bronze Medal in 5000 Mts.

#### **Convocation-2013:**

Second Convocation was conducted on 21.07.2013, Chief Guest Dr.(Smt) Daggupati Purandeswari, Hon'ble Union Minister of State for Commerce and Industry, Govt of India, Vice Chancellor Prof. B.N.Jain have participated in the Second Convocation of the campus for award of various degrees (First Degree, Higher Degree) who have qualified in second Semester 2012-13.

#### **Other Events:**

- On the occasion of Republic Day and Independence Day, BPHC Marathons were conducted on 26.01.2013, 15.08.2013 for 3K & 6K Categories.
- Center for Entrepreneurial Leadership (CEL) in association with Project Spark by BITSAA was conducted under Earn While You Learn Scheme for NVC among the students.
- The student union elections were conducted by the Election Commission on 3/9/13 to elect the office bearers of the Students Union Council for the academic year 2013-14.
- Mahatma Gandhi Jayanti conducted on 02.10.2013.



- Innovation in Chemical Engineering (ICE) conducted on 15,16th November,2013 SAW keynote speakers ranging from premier academic institutions like IICT,BARC,UCT-MUMBAI etc. and Industry stalwarts coming from Aditya Birla Group, Dupont etc.
- French Language classes were conducted in BPHC.
- Students represented Hyderabad Campus at different youth festivals like OASIS, WAVES, and MOOD INDIGO and won prizes in various categories.
- Important community festivals like Lohri, Pongal, Ugadi, Rama Navami, Ganesh Chaturthi, Durga Puja, Diwali, Janmastami, Mahavir Jayanthi and Christmas were celebrated by the students with great enthusiasm. Various cultural activities were organized as part of the festivities.
- Quad Copter and Aero Modelling workshop conducted by RC Club.
- Students came up with the fourth issue of the annual magazine of the campus, "ON THE ROCKS", which showcased their creative abilities.
- RBI-BITS Interface was conducted on campus.
- Journal Club release Journals during PEARL, ATMOS and other major events.
- BITSAA Global Meet was conducted on 3rd January to 5th January 2014.

#### **Golden Jubilee Celebrations 2013-14:**

- Golden Jubilee Celebrations Special Logo and Brochure are released in Hyderabad Campus.
- One game changer talk organized on 27th August, 2013 Prof. Venkatesh Narayanamurthi, Harvard University, School of Eng. & Applied Sciences.

### **B3.13 MAJOR MAINTENANCE, RENOVATIONS OR NEW CONSTRUCTION REPORTS**

#### **Construction**

- An auditorium with a seating capacity of 2500 nos spread out in 1,44,444 sft is under construction. This project is likely to be completed by the April 2014.
- External development works and landscape works all around the auditorium is expected to start this year 2014.
- Growth Plan for the Phase-II, as per the user council requirements are most likely to be approved by April 2014. And accordingly the construction of priority buildings would commence.

#### **Renovation and Maintenance**

- Installation of Reverse Osmosis Plants in all - Dining Halls
- Marking of car parking slots at Block A & E cellars for parking requirements at the institute.
- Housing wood work i.e. cupboards and car parking shed for required houses in the campus
- Campus Beautification by Erection of flag posts, coloring of footpaths, Tree plants pots with institute color paints and maintenance of lotus pond at Hillock.
- Laying of road besides dining – I from Gandhi Bhawan to Vyas Bhawan and renovation of Malviya Bhawan Emergency way and parent waiting hall.

### **B3.14 MAJOR EQUIPMENT'S ACQUIRED DURING THE YEAR:**

During 2013 a lot of new equipment has been added to support academics, research and development. Details as per **Annexure 7 (Part B3)**.

## LIST OF ANNEXURES

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'Annexure B3-1'

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**ADMINISTRATIVE BODIES****The names and designations of senior officers of Hyderabad campus****Head of Departments**

S.No.	Faculty Member	Discipline
1.	Dr Balaji Krishnamurthy	Chemical Engineering
2.	Dr. Jagadeesh Anmala	Civil Engineering
3.	Prof. Y Yoganandam	Electrical and Electronics Engineering
4.	Prof. Y V Daseswara Rao	Mechanical Engineering
5.	Dr. V Vamsi Krishna Venuganti	Pharmacy
6.	Dr. R Gururaj	Computer Science & Information Systems
7.	Prof. Ramakrishna Vadrevu	Biological Sciences
8.	Prof. K Sumithra	Chemistry
9.	Dr. M G Prasuna	Humanities & Social Sciences
10.	Dr. P Lalitha	Economics and Finance
11.	Prof. Bivudutta Mishra	Mathematics
12.	Dr. Kannan Ramaswamy	Physics

**Dean(s) and Asst. Dean**

1.	Dean, Administration	Prof. M B Srinivas
2.	Dean, International Programmes and Collaborations Division (University Wide)	Prof. Suman Kapur
3.	Asst. Dean, Practice School Division	Dr. KVG Chandrasekhar

**Professor-in-charge (s)**

1	Professor In-charge , Faculty Affairs	Prof Srinivasa Prakash Regalla
2	Professor-in-charge, International Programmes and Collaborations Division	Prof. Souri Banerjee
3.	Professor-in-charge, Sponsored Research and Consulting Division	Prof. P. Yogeeswari
4	Professor-in-charge, Academic Research Division	Prof. Vidya Rajesh

**Faculty-in-Charges**

1.	Academic Registration and Counseling Division	Prof. M Srinivas
2.	Admissions Division	Prof. Vinayaka Rao
3.	Centre for Innovation, Incubation and Entrepreneurship (CIIE) & Placements	Dr. Sankar Ganesh
4.	Maintenance & Engineering Services Division	Prof. Y V Daseswara Rao
5.	Educational Hardware Division	Prof. A Vasana
6	Instruction Division	Prof. Michael Alphonse

7.	Information Processing Centre	Prof. Chittaranjan Hota
8	Work Integrated Learning Programme	Dr. K.V.G. Chandrasekhar
9	Student Welfare Division	Dr. Sandip Shridharrao Deshmukh
10	Construction	Prof. P N Rao

**Other In-charges**

SI.No.	Name	In-charge
1	Central Analytical Laboratory	Dr. R Krishnan
2	Central CAD Laboratory	Dr. Jagadeesh Anmala
3	Publications & Media Relations	Ms. Vasundhari Alluri - Convener
4	Community Welfare	Dr. Meenakshi Viswanathan
5	Workshop	Prof. Amit Kumar Gupta
6	Alumni Affairs	Dr. S SDeshmukh
7	Library	Mr. M S Uday Kumar

**Co-ordinators**

SI.No.	Name	In-charge
1	National Service Scheme	Mr . Shamuuel Tharu
2	Centre of Excellence in Water Resources Management	Prof. K S Raju

**Hostel Resident Wardens**

SI.No	Name	Hostel
1	Dr Kumar Pranav Narayan	Chief Warden Warden, Krishna Bhawan
2	Dr. Phaneendra Kiran Chaganti	Warden, Budh Bhawan
3	Mr G Pavan Kumar	Gandhi Bhawan
4	Dr KVG Chandra Sekhar	Vyas Bhawan
5	Dr. D Purnima	Madan Mohan Malaviya Bhawan
6	Dr. Aruna Malapati	Meera Bhawan
7	Mr. Syed Ershad Ahmed	Ram Bhawan
8	Dr Naga Mohan Kommu	Shankar Bhawan

**Hostel Non-Resident Wardens**

Sl.No	Name	Hostel
1	Dr. Manab Chakravarty	Krishna Bhawan
2	Mr Aditya Kolachana	Ram Bhawan
3	Dr Kannan Ramaswamy	Shankar Bhawan
4	Dr. Krishnan Rangan	Budh Bhawan
5	Dr. Murari R Varma	Gandhi Bhawan
6	Dr. T S L Radhika	Meera Bhawan
7	Mr. Kurra Suresh	Vyas Bhawan
8	Dr. Alivelu Manga Parimi	Madan Mohan Malaviya Bhawan

**Hostel Superintendent**

Sl.No	Name	Hostel
1	Dr Shaik Mohammad Ghouse	Shanker Bhawan & Ram Bhawan

**Asst. Hostel Superintendents**

1	Mr. Santosh Pillai	Krishna Bhawan and Ram Bhawan
2	Mr A Haridas	Vyas Bhawan & Budh Bhawan
3	Mr. Shaik Areef Basha	Gandhi Bhawan and Budh Bhawan
4	Ms. M Anitha Santhosh	Meera Bhawan and Malviya Bhawan

'Annexure B3-2'

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**DETAILS OF ADMISSIONS MADE DURING THE YEAR 2013****(A) Integrated First Degree Programmes at Hyderabad Campus:**

B.E.(Hons.): Chemical - A1	48
B.E.(Hons.): Civil - A2	47
B.E.(Hons.): Electrical and Electronics - A3	78
B.E.(Hons.): Mechanical - A4	64
B.Pharm.(Hons.) - A5	2
B.E.(Hons.): Computer Science - A7	115
B.E.(Hons.): Electronics & Instrumentation - A8	40
B.E.(Hons.): Electronics and Communications - AA	81
B.E.(Hons.): Manufacturing – AB	40
M.Sc.(Hons.): Biological Sciences - B1	30
M.Sc.(Hons.): Chemistry - B2	29
M.Sc.(Hons.): Economics - B3	40
M.Sc.(Hons.): Mathematics - B4	45
M.Sc.(Hons.): Physics - B5	34
Grand Total	693

**(B) Higher Degree Programmes:**

M.E. Biotechnology	9
M.E. Civil ( with specialization in Structural Engineering)	10
M.E. Computer Science	5
M.E. Embedded Systems	8
M.E. Design Engineering	7
M.Pharm. (with specialization in Pharmaceuticals)	8
M.Pharm.(with specialization in Pharmaceutical Chemistry)	2
M.E. Mechanical (with specilization in Thermal Engg.)	12
Grand Total	61

**(C) Higher Degree (3 Year Integrated) Programme:**

M.E. in Computer Science (with specialization in Information Security)	10
Grand Total	10

**(D) Ph.D. Programmes:****Second Semester, 2012-2013**

Biological Sciences	4
Chemical Engg.	1
Chemistry	4
Civil Engg.	0
CS & IS	1
EEE	1
Humanities	1
Mathematics	0
Mechanical Engg.	2
Pharmacy	5
Physics	1
Grand Total	20

**First Semester, 2013-2014**

	Full-time	Part-time
Biological Sciences	3	0
Chemical Engg.	1	2
Chemistry	0	1
Civil Engg.	1	3
CS & IS	0	3
EEE	2	0
Humanities (Management)	0	2
Mathematics	0	0
Mechanical Engg.	1	6
Pharmacy	4	4
Physics	2	0
Grand Total	14	21

**DETAILS OF DUAL DEGREE AND TRANSFERS MADE DURING THE YEAR 2013****Dual Degree**

	A1	A2	A3	A4	A5	A7	A8	AA	AB	Total
B1	1	2	4	2	0	6	2	6	3	26
B2	7	1	4	2	0	6	1	4	2	27
B3	5	3	8	4	0	6	2	4	3	35
B4	0	4	4	6	0	7	4	7	3	35
B5	1	0	5	5	0	4	4	5	2	26
Total	14	10	25	19	0	29	13	26	13	149

**Dual Degree - Other Priorities**

	A1	A2	A3	A4	A5	A7	A8	AA	AB	B1	B2	B3	B4	B5	Total
A1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A3	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2
A4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A7	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
A8	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
AA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
AB	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
B1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
B2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
B3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
B4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
B5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Total	0	0	0	2	0	0	0	1	0	1	0	1	0	1	6



**Transfers****B-B Transfers**

	B1	B2	B3	B4	B5	Total
B1	-	-	1	1	1	3
B2	-	-	-	2	1	3
B3	-	-	-	-	-	0
B4	-	-	2	-	-	2
B5	-	-	-	-	-	0
Total	0	0	3	3	2	8

**Transfers**

	A1	A2	A3	A4	A5	A7	A8	AA	AB	Total
A1	-	-	-	-	-	-	-	-	-	0
A2	-	-	-	-	-	2	-	-	-	2
A3	-	-	-	-	-	2	-	1	-	3
A4	-	-	-	-	-	-	-	-	-	0
A5	-	-	-	-	-	-	-	-	-	0
A7	-	-	-	-	-	-	-	-	-	0
A8	-	-	-	-	-	-	-	1	-	1
AA	-	-	-	-	-	-	-	-	-	0
AB	-	-	-	-	-	-	-	-	-	0
B1	-	1	-	-	-	1	-	-	-	2
B2	-	-	-	-	-	-	1	-	-	1
B3	-	-	-	-	-	-	-	-	-	0
B4	-	-	-	-	-	-	-	-	-	0
B5	-	-	-	-	-	-	-	-	-	0
Total	0	1	0	0	0	5	1	2	0	9

'Annexure B3-3'

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**LIST OF NEW COURSES INTRODUCED DURING THE YEAR 2013****Second semester 2012-2013**

S No	Course No	Course Title
1	BIO F241	ECOLOGY & ENVIRONMENTAL SCIENCE
2	BIO F242	INTRODUCTION TO BIOINFORMATICS
3	BIO F243	GENETICS
4	BIO F244	INSTRUMENTAL METHODS OF ANALYSIS
5	CE F241	ANALYSIS OF STRUCTURES
6	CE F242	CONSTRUCTION PLANNING AND TECHNOLOGY
7	CE F243	SOIL MECHANICS
8	CE F244	HIGHWAY ENGINEERING
9	CHE F241	HEAT TRANSFER
10	CHE F242	NUMERICAL METHODS FOR CHEMICAL ENGINEERS
11	CHE F243	MATERIAL SCIENCE & ENGINEERING
12	CHE F244	SEPARATION PROCESSES I
13	CHEM F241	INORGANIC CHEMISTRY II
14	CHEM F242	CHEMICAL EXPERIMENTATION I
15	CHEM F243	ORGANIC CHEMISTRY II
16	CHEM F244	PHYSICAL CHEMISTRY III
17	CS F211	DATA STRUCTURES & ALGO
18	CS F212	DATA BASE SYSTEMS
19	CS F241	MICROPROCESSORS AND INTERFACING
20	ECE F241	MICROPROCESSORS AND INTERFACING
21	ECE F242	CONTROL SYSTEMS
22	ECE F243	SIGNALS & SYSTEMS
23	ECE F244	MICROELECTRONIC CIRCUITS
24	ECON F211	PRINCIPLES OF ECONOMICS
25	ECON F241	ECONOMETRIC METHODS
26	ECON F242	MICROECONOMICS
27	ECON F243	MACROECONOMICS
28	ECON F244	ECONOMICS OF GROWTH & DEVELOPMENT
29	EEE F241	MICROPROCESSORS AND INTERFACING
30	EEE F242	CONTROL SYSTEMS
31	EEE F243	SIGNALS & SYSTEMS
32	EEE F244	MICROELECTRONIC CIRCUITS
33	GS F211	MODERN POLITICAL CONCEPTS
34	GS F224	PRINT AND AUDIO-VISUAL ADVERTISING
35	GS F232	INTRODUCTORY PSYCHOLOGY

S No	Course No	Course Title
36	GS F233	PUBLIC POLICY
37	GS F245	EFFECTIVE PUBLIC SPEAK
38	GS F322	CRITICAL ANALYSIS OF LITERATURE AND CINEMA
39	HSS F223	APPRECIATION OF INDIAN MUSIC
40	HSS F332	CINEMATIC ART
41	IS F211	DATA STRUCTURES & ALGO
42	IS F242	COMPUTER ORGANIZATION
43	IS F243	DATABASE SYST AND APPL
44	MATH F213	DISCRETE MATHEMATICS
45	MATH F241	MATHEMATICAL METHODS
46	MATH F242	OPERATIONS RESEARCH
47	MATH F244	MEASURE & INTEGRATION
48	MBA C423	BUSINESS POLICY & STRAT MGT
49	ME F215	MECHANICAL ENGINEERING LABORATORY
50	ME F241	MACHINE DESIGN & DRAWING
51	ME F242	IC ENGINES
52	ME F244	KINEMATICS AND DYNAMICS OF MACHINES
53	PHA F211	PHARMACEUTICAL ANALYSIS
54	PHA F241	PHARMACEUTICAL CHEMISTRY
55	PHA F242	BIOLOGICAL CHEMISTRY
56	PHA F244	PHYSICAL PHARMACY
57	PHY F241	ELECTROMAGNETIC THEORY II
58	PHY F242	QUANTUM MECHANICS I
59	PHY F243	MATHEMATICAL METHODS OF PHYSICS
60	PHY F244	MODERN PHYSICS LAB
61	POL F321	INTERNATIONAL RELATIONS

**First Semester 2013-2014**

S.No.	Course No	Course Title
1	BIO F266	STUDY PROJECT
2	BIO F311	RECOMBINANT DNA TECHNOLOGY
3	BIO F312	PLANT PHYSIOLOGY
4	BIO F313	ANIMAL PHYSIOLOGY
5	BIO F366	LABORATORY PROJECT
6	BIO F376	DESIGN PROJECT
7	BITS F311	DIGITAL IMAGE PROCESSING
8	BITS F316	NON-LINEAR DYNAMICS AND CHAOS
9	BITS F343	FUZZY LOGIC & APPL
10	BITS F415	INTRODUCTION TO MEMS
11	BITS F428	ESSENTIALS OF STRATEGIC MANAGEMENT

S.No.	Course No	Course Title
12	BITS F437	TECHNICAL COMMUNICATION
13	BITS F464	MACHINE LEARNING
14	CE F266	STUDY PROJECT
15	CE F312	HYDRAULIC ENGINEERING
16	CE F313	FOUNDATION ENGINEERING
17	CE F343	DESIGN OF STEEL STRUCTURES
18	CE F366	LABORATORY PROJECT
19	CE F376	DESIGN PROJECT
20	CE F411	OPERATION RESEARCH FOR ENGINEERS
21	CE F431	PRINCIPLES OF GEOGRAPHICAL INFORMATION SYSTEMS
22	CHE F266	STUDY PROJECT
23	CHE F311	KINETICS & REACTOR DESIGN
24	CHE F312	CHEMICAL ENGINEERING LABORATORY I
25	CHE F313	SEPARATION PROCESSES II
26	CHE F314	PROCESS DESIGN PRINCIPLES I
27	CHE F366	LABORATORY PROJECT
28	CHE F376	DESIGN PROJECT
29	CHE F413	PROCESS PLANT SAFETY
30	CHE F414	TRANSPORT PHENOMENA
31	CHEM F266	STUDY PROJECT
32	CHEM F311	ORGANIC CHEMISTRY III
33	CHEM F312	PHYSICAL CHEMISTRY IV
34	CHEM F313	INSTRUMENTAL METHODS OF ANALYSIS
35	CHEM F326	SOLID STATE CHEMISTRY
36	CS F222	DISCR STRUC FOR COMP SCI
37	CS F266	STUDY PROJECT
38	CS F301	PRINCIPLE OF PROGRAMMING LANGUAGES
39	CS F342	COMPUTER ARCHITECTURE
40	CS F351	THEORY OF COMPUTATION
41	CS F366	LABORATORY PROJECT
42	CS F372	OPERATING SYSTEMS
43	CS F376	DESIGN PROJECT
44	CS F401	MULTIMEDIA COMPUTING
45	CS F422	PARALLEL COMPUTING
46	CS F424	SOFTWARE FOR EMBEDDED SYS
47	ECE F266	STUDY PROJECT
48	ECE F311	COMMUNICATION SYSTEMS
49	ECE F314	ELECTROMAGNETIC FIELDS & MICROWAVE ENGINEERING
50	ECE F366	LABORATORY PROJECT
51	ECE F376	DESIGN PROJECT

S.No.	Course No	Course Title
52	ECE F434	DIGITAL SIGNAL PROCESS
53	ECON F266	STUDY PROJECT
54	ECON F311	INTERNATIONAL ECONOMICS
55	ECON F312	"MONEY, BANKING AND FINANCIAL MARKETS"
56	ECON F313	ISSUES IN ECONOMIC DEVELOPMENT
57	ECON F351	INDIAN ECONOMIC DEVELOPMENT
58	ECON F355	BUSINESS ANALYSIS AND VALUATION
59	ECON F411	PROJECT APPRAISAL
60	ECON F412	SECURITY ANALYSIS & PORTFOLIO MANAGEMENT
61	ECON F415	NEW VENTURE CREATION
62	ECON F422	FUNCTIONS & WORKING OF STOCK EXCHANGES
63	ECON F471	RESOURCES AND ENVIRONMENTAL ECONOMICS
64	EEE F266	STUDY PROJECT
65	EEE F311	COMMUNICATION SYSTEMS
66	EEE F313	ANALOG & DIGITAL VLSI DESIGN
67	EEE F366	LABORATORY PROJECT
68	EEE F376	DESIGN PROJECT
69	EEE F434	DIGITAL SIGNAL PROCESS
70	EEE F435	DIGITAL IMAGE PROCESSING
71	FIN F314	INVEST BANK & FIN SERV
72	FIN F315	FINANCIAL MANAGEMENT
73	HSS C316	POP LITER & CULT OF S ASIA
74	HSS C317	INTRO TO GLOBALIZATION
75	HSS F266	STUDY PROJECT
76	HSS F316	POP LITER & CULT OF S ASIA
77	HSS F317	INTRO TO GLOBALIZATION
78	HSS F328	HUMAN RESOURCES DEVELOPMENT
79	HSS F339	THEATRE ART ACTING AND PRODUCTION
80	IS F266	STUDY PROJECT
81	IS F301	PRINCIPLES OF PROGRAMMING LANGUAGES
82	IS F311	COMPUTER GRAPHICS
83	IS F341	SOFTWARE ENGINEERING
84	IS F372	OPERATING SYSTEMS
85	IS F376	DESIGN PROJECT
86	IS F462	NETWORK PROGRAMMING
87	MATH F266	STUDY PROJECT
88	MATH F311	INTRODUCTION TO TOPOLOGY
89	MATH F312	ORDINARY DIFFERENTIAL EQUATIONS
90	MATH F313	NUMERICAL ANALYSIS
91	MATH F366	LABORATORY PROJECT

S.No.	Course No	Course Title
92	ME F266	STUDY PROJECT
93	ME F311	HEAT TRANSFER
94	ME F312	ADVANCED MECHANICS OF SOLIDS
95	ME F313	PRODUCTION TECHNIQUES II
96	ME F366	LABORATORY PROJECT
97	ME F376	DESIGN PROJECT
98	ME F432	COMPUTER AIDED MANUFACT
99	ME F443	SOLAR THERMAL PROCESS ENGG
100	MF F211	MECHANICS OF SOLIDS
101	MF F212	FLUID MECHANICS
102	MF F213	MATERIALS SCIENCE & ENGINEERING
103	MF F214	APPLIED THERMODYNAMICS
104	MF F215	MECHANICAL ENGINEERING LABORATORY
105	PHA F266	STUDY PROJECT
106	PHA F311	PHARMACOLOGY I
107	PHA F312	MEDICINAL CHEMISTRY I
108	PHA F313	INSTRUMENTAL METHODS OF ANALYSIS
109	PHA F314	PHARMA FORMUL & BIOPHARM
110	PHA F366	LABORATORY PROJECT
111	PHA F422	COSMETIC SCIENCE
112	PHY F266	STUDY PROJECT ENGG
113	PHY F311	QUANTUM MECHANICS II
114	PHY F312	STATISTICAL MECHANICS
115	PHY F313	COMPUTATIONAL PHYSICS
116	PHY F315	THEORY OF RELATIVITY

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**REGISTRATION OF STUDENTS****Second Semester 2012-2013**

Discipline	On Campus									Sub Total	Practice School II			Grand Total
	2004	2005	2006	2007	2008	2009	2010	2011	2012		2008	2009	2011	
Research Scholars	1	1	1	1	1	11	22	53	38	129				129
A1 - BE (Hons.) Chemical					2	23	33	37	36	131		16		147
A2 - BE (Hons.) Civil						23	39	32	38	132		15		147
A3 - BE (Hons.) EEE						41	69	74	74	258		36		294
A4 - BE (Hons.) Mechanical						37	60	65	58	220		22		242
A5 - B. Pharm (Hons.)					1	14	21	22	10	68	1	4		73
A7 - BE (Hons.) Computer Science					1	42	75	88	84	290		35		325
A8 - BE (Hons.) Electronics & Instrumentation									40	40				40
AA - BE (Hons.) ECE					2	42	75	83	80	282	1	33		316
AB - BE (Hons.) Manufacturing									33	33				33
B1 - M.Sc. (Hons.) Biology					15	19	27	32	29	122	12			134
B2 - M.Sc. (Hons.) Chemistry					5	27	29	35	29	125	15			140
B3 - M.Sc. (Hons.) Economics					11	39	43	40	35	168	26	1		195
B4 - M.Sc. (Hons.) Mathematics					13	42	41	40	35	171	15			186
B5 - M.Sc. (Hons.) Physics					18	32	32	30	29	141	16			157
C6 - M.Sc. (Tech) Information Systems						29	46	55	50	180	1	20		201
H103 - ME (Computer Science)								1	7	8			5	13
H108 - M.Pharm (Pharmacy)					3			1		4			4	8

Discipline	On Campus									Sub Total	Practice School II			Grand Total
	2004	2005	2006	2007	2008	2009	2010	2011	2012		2008	2009	2011	
H 123 - ME (Microelectronics)									4	4				4
H 129 - ME (Biotechnology)					1			4	9	14			1	15
H 140 - ME (Embedded System)								8	4	12			2	14
H 141 - ME (Design)								6	9	15			2	17
H 143 - ME (Structural)								3	8	11			3	14
H146 - M.Pharm (Pharmaceuticals)					2			1	8	11			4	15
H 147 - M.Pharm (Pharmaceutical Chemistry)					1				5	6				6
H 148 - ME (Thermal)								4	7	11				11
H 203 - ME (Computer Science) WP								6		6				6
H 205 - ME (Electronics & Control) WP									11	11				11
H 206 - ME (Mechanical) WP									5	5				5
H 223 - ME (Microelectronics) WP										0				0
H 240 - ME (Embedded Systems) WP								8	6	14				14
H246 - M.Pharm (Pharmaceuticals) WP								10		10				10
	1	1	1	1	76	421	612	738	781	2632	87	182	21	2922



**Summer Term (PS I) 2011 – 2012**

Discipline	TOTAL	Course No.
2009 & 2010 Batch Students	3	BITS C221
2011 Batch Students	631	BITS F221

Total Registered during Summer Term (PS I) 2012 – 2013 **634**

**First Semester 2013 - 2014**

Discipline	On Campus										Sub Total	Practice School II			Grand Total
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		2008	2009	2010	
Research Scholars	1		1	1	1	12	19	55	37	37	164				164
A1 - BE (Hons.) Chemical						7	18	37	36	50	148	1	2	15	166
A2 - BE (Hons) Civil						1	21	32	37	50	141			17	158
A3 - BE (Hons.) EEE						2	37	74	70	78	261		4	32	297
A4 - BE (Hons.) Mechanical						2	36	65	58	66	227		2	24	253
A5 - B. Pharm (Hons.)						4	16	22	9	2	53	1	6	4	64
A7 - BE (Hons.) Computer Science					1	2	37	87	89	116	332			38	370
A8 - BE (Hons.) Electronics & Insrummentation									39	40	79				79
AA - BE (Hons.) ECE							41	83	82	81	287	1	2	34	324
AB - BE (Hons.) Manufacturing									33	42	75				75
B1 - M.Sc. (Hons.) Biology						5	28	32	23	35	123	2	14		139
B2 - M.Sc. (Hons.) Chemistry					1	5	28	35	25	30	124		22		146
B3 - M.Sc. (Hons.) Economics						4	43	40	38	41	166	1	34		201
B4 - M.Sc. (Hons.) Mathematics					2	8	41	40	36	46	173	1	32		206
B5 - M.Sc. (Hons.) Physics					1	4	32	30	31	35	133		28		161
C6 - M.Sc. (Tech) Information Systems						1	24	55	50		130		1	22	153
H 103 - ME (Computer Science)									7	5	12				12
H 108 - M.Pharm (Pharmacy)					3						3				3
H 123 - ME (Microelectronics)									4		4				4

Discipline	On Campus										Sub Total	Practice School II			Grand Total
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		2008	2009	2010	
H 129 - ME (Biotechnology)					1				9	9	19				19
H 140 - ME (Embedded System)									4	8	12				12
H 141 - ME (Design)									9	7	16				16
H 143 - ME (Structural)									8	10	18				18
H 146 - M.Pharm (Pharmaceutics)					2			1	8	8	19				19
H 147 - M.Pharm (Pharmaceutical Chemistry)					1				5	2	8				8
H 148 - ME (Thermal)									7	12	19				19
H 203 - ME (Computer Science) WP								6			6				6
H 205 - ME (Electronics & Control) WP									11		11				11
H 206 - ME (Mechanical) WP									5		5				5
H 223 - ME (Microelectronics) WP											0				0
H 240 - ME (Embedded Systems) WP								8	6		14				14
H 246 - M.Pharm (Pharmaceutics) WP								10			10				10
H 313 - ME (Information Security)										10	10				10
	1	0	1	1	13	57	421	712	776	820	2802	7	147	186	3142

Year-wise Breakup of 55 students who were Under ACB is given below:

Year of admission	No. of students under the purview of ACB		
	First Degree	Higher Degree	TOTAL
2008	02	-	02
2009	07	-	07
2010	12	-	12
2011	11	-	11
2012	12	-	12
2013	09	02	11
<b>Total</b>	<b>53</b>	<b>2</b>	<b>55</b>

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**LIST OF ORGANIZATIONS WHICH CONDUCTED CAMPUS INTERVIEWS****Placement Companies Jan-Dec 2013**

S.No	Name of the Company	Offers	CTC	No. of interviews
1	Amazon	4	13	119
2	ABB	1	4.5	25
3	Accolite	0	6.5	40
4	Amazon	6	16	90
5	AMD	3	6.4	10
6	Amritha Tool	4	3.5	40
7	Analinear	1	4.8	49
8	Aster Buildings	3	3	38
9	Beehyv	9	4	60
10	Belzabar	6	6.5	70
11	CA Technologies	4	6.1	65
12	Capital IQ	7	8	80
13	CBRE	7	4	120
14	Center for Good Governance	3	3.5	55
15	CISCO	14	11.22	90
16	Covidien	1	5	25
17	D.E. Shae	3	18	43
18	Danaher	4	5.5	25
19	Deloitte	9	5.47	50
20	DELL	7	5	40
21	Derrick Petroleum	1	5.4	15
22	Diebold	3	6.4	33
23	Dr.Reddy's	4	5	46
24	DVB Design	5	5.75	20
25	EA Games	6	10.9	60
26	eBay	2	22	42
27	Edu Pristine	0	4	41
28	Egain	2	5	10
29	ELGI	0	4.5	10
30	Epic Systems	3	62	120
31	Espicitnc	7	5	20
32	FIAT	4	4	35

S.No	Name of the Company	Offers	CTC	No. of interviews
33	Fiorano	2	6.75	30
34	Flipkart	0	12.5	77
35	FMC	5	5.3	35
36	FourSoft	5	4.5	40
37	Frame Bench	1	4.8	20
38	Free Scale	1	10	16
39	Futures First	2	8.7	41
40	Ganon and Dunkerly	10	3	50
41	GE	1	7.35	16
42	Global Analytics	1	5.8	60
43	Google	0	20	47
44	Groupon	2	12	50
45	Hemair	1	4	30
46	Honda	1	5.61	45
47	Host Analytics	1	8	77
48	Informatica	2	9.4	30
49	Infotech	1	2.75	47
50	INNOPARK	6	7	35
51	Inside View	2	10	90
52	I-Runway	0	8	40
53	ITW	3	4.75	45
54	JP Morgan	9	6.5	47
55	L&T	5	5	30
56	Mediamint	2	3.5	20
57	mFino	6	7	90
58	Microsoft	10	10	120
59	Morgan Stanley	6	12	140
60	Morphing Machines	1	3.6	19
61	MuSigma	24	6	120
62	MySmartPrice	1	10	120
63	MYSQL	1	6	44
64	National Instrument	0	10	90
65	Navyug Infosolutions	4	7.5	75
66	NetCracker	3	6.7	33
67	Nuevosol	2	3.5	11
68	NVIDA	2	9.3	76
69	Oracle HSGBU,OFSS,Systems,GBU	32	6	150
70	Orbees	3	6.5	69

S.No	Name of the Company	Offers	CTC	No. of interviews
71	Origo Pharma	8	4.8	15
72	Orvito	3	4	29
73	Perkin Elmer	1	4	35
74	Pharmax	1	3.5	18
75	Pokarna Limited	6	6	28
76	Polaris	10	4.25	140
77	Polmon	4	3.5	70
78	Portware	6	5.4	49
79	Qualcomm	7	11	50
80	Ramcadd	7	3.2	35
81	Reddy Labs	1	5.5	25
82	Redpine Signals	8	6.5	80
83	Saavn Media Pvt. Ltd.	2	10	66
84	SKF	1	4.5	10
85	Sokrati	8	4	68
86	SONY	4	4.5	44
87	Step 2 Technologies	2	6.5	54
88	TCE	6	3.5	60
89	TCS	6	3.1	33
90	TCS Analytics	6	7.3	65
91	Tech Mahindra	31	3.07	40
92	Tejas Networks	2	6	87
93	Thomas & Betts Ind.ltd.	1	2	15
94	Thornton	0	5.5	21
95	Thorough Good Associates	0	5	25
96	TIMES	1	4	10
97	Ultratech	1	3	13
98	Unilever	3	6.3	22
99	United Online	5	5.5	38
100	Virtusa	8	5	60
101	Vitese	4	6	42
102	Viven Info Media	2	4	65
103	Walmart	1	18	79
104	Works application	0	30	31
105	Xtream IT	1	6	58
106	Yardstick	12	4	50
107	ZF Associates	1	8.2	49

**Total Offers**      **461**

5440

Branch	% Placed	Total Students	Placed Students	Job Offers	MAX(LPA)	AVG(LPA)	MIN(LPA)
Registered Students	<b>73.45</b>	<b>580</b>	<b>426</b>	<b>458</b>	<b>62</b>	<b>4.69</b>	<b>2</b>
B.E. Chemical	<b>68.09</b>	47	32	34	7.3	3.39	3.07
B.E. Civil	<b>79.07</b>	43	34	37	10	3	3
B.E. CSE	<b>94.57</b>	92	87	92	22	8.83	4
B.E. ECE	<b>72.73</b>	99	72	80	18	4.53	3.07
B.E. EEE	<b>74.19</b>	93	69	78	12.7	4.33	2
M.Sc. IS	<b>85.42</b>	48	41	41	16	6.12	3.5
MSc Math	<b>100.00</b>	2	2	2	4	4	4
Msc Biology	<b>0.00</b>	1	0	0	0	0	0
B.E (Mechanical)	<b>72.60</b>	73	53	57	12	3.33	2.75
B. Pharmacy	<b>40.91</b>	22	9	9	6.5	2	4
M. Pharm	<b>77.78</b>	18	14	14	5	2.92	3.07
M.E. Bio Technology	<b>28.57</b>	7	2	2	5	1.15	3.07
M.E. Computer Science	<b>66.67</b>	6	4	4	10	6	7.5
M.E. Design	<b>22.22</b>	9	2	3	5	1	4.8
M.E. Embedded Systems	<b>0.00</b>	4	0	0	0	0	0
M.E. Micro Electronics	<b>25.00</b>	4	1	1	7	1.7	7
M.E. Structural	<b>0.00</b>	5	0	0	0	0	0
M.E. Thermal	<b>57.14</b>	7	4	4	7.3	2.88	3.07

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**APPROVED PROJECTS DURING JANUARY - DECEMBER 2013**

S.No.	Title of the Project	Principal Investigator	Funding Agency	Department	Sanctioned Amount	Duration	Sanctioned Date
1	Novel Minimal-Solid Lubricant Mixture Application Method for Performance Improvement in Turning	Dr. N.S.K Reddy	DST	Mechanical Engg.	3250000	3 years	10.01.2013
2	Collaborating for quality teaching and research in the area of computational mechanics	Dr. Chandu Parimi	British Council	Civil Engg.	388350	1year	06.02.2013
3	Synthesis & Biological activity of various triazoles as effective antifungal agents	Dr.KVG Chandrasekhar	DBT	Chemistry	1372400	3years	12.02.2013
4	On the formation of Dwarf Elliptical Galaxies	Dr. Rahul Nigam	UGC	Physics	540000	2years	30.03.2013
5	Application of Micro-Environment Property Descriptor to Study Free Energy Changes in Amyloidogenic Protein Aggregation	Dr. Debashree Bandyopadhyay	UGC	Biological Science	540000	2years	30.03.2013
6	Development of Indigenous POC device micro channel / fluidic device for estimation of lipid profile in human plasma / serum	Prof. Suman Kapur	NPMAS	Biological Science	4666700	2years	22.04.2013
7	Development of suitably customized polymers and clay based adsorbents for the effective removal of chromium from e-waste	Dr. N Rajesh	DST	Chemistry	4282000	3years	25.04.2013
8	Role of adipose in ethanol-induced tissue injury	Dr. Palash Mandal	DST	Biological Sciences	2500000	3years	25.04.2013
9	Investigation of magneto-optical effects in composite magneto plasmonic nanostructures for sensing application	Dr.Kannan Ramaswamy	DST	Physics	3270000	3years	13.05.2013
10	Delineating the impact growth promoting rhizobacteria on plant polyamine metabolism: novel insights in to plant –PGPR interactions	Dr. Sridev Mohapatra	DST	Biological Sciences	2500000	3years	02.05.2013

S.No.	Title of the Project	Principal Investigator	Funding Agency	Department	Sanctioned Amount	Duration	Sanctioned Date
11	Development of Synthetic Resin Product	Dr. Srikanta Dinda	DST-FT	Chemical Engg.	2200000	3years	20.05.2013
12	Transcutaneous delivery of liposomesirna complex to treat skin cancer	Dr. Vamsi Krishna Venuganti	DST	Pharmacy	2926000	3years	17.06.2013
13	Development of a cost - effective membrane and DNA chip-based methods for detection of mutations associated with Multiple Drug Resistant-Tuberculosis	Dr. Nagamohan	DST	Biological Sciences	6916000	2years	26.08.2013
14	Integrated urban flood management in India: Technology-Driven solutions	Prof. K. S. Raju	ITRA	Civil Engineering	1906000	3 years	21.09.2013
15	Study of Decoherence and Entanglement in Non Linear Systems and their Application	Dr . K V S Shivchaitanya	DST-FT	Physics	1416000	3 years	01.11.2013
16	Novel Biomarker responses to validate acute toxicity of engineered nanoparticles and their physicochemical interactions in earthworm as a model bioindicator of nano (eco) toxicology.	Dr. Shankar Ganesh	DBT (RGYI)	Biological Sciences	1407800	3 years	07.10.2013
17	Photocurable organic-inorganic hybrid precursors for the fabrication of metal oxide micro/nanostructures	Dr. Ramakrishan Ganesan	DST FT	Chemistry	2598000	3 years	31.10.2013
18	Generalized Convexity, Hermite-Hadamard Inequality on Riemannian Manifolds and their Applications	Dr. Ahlad iqbal	UGC	Mathematics	600000	2years	Dec,2013
19	Non -Invasive Delivery of siRNA to treat Melanoma	Dr. VVS Vamsi Krsishna	DBT (RGYI)	Pharmacy	2284800	3 years	06.06.2012
20	Synthesis of modified TosMIC & BetMIC for use as key reagents in the synthesis of boronated heterocycles	Dr. Anupam Bhattacharya	CSIR	Chemistry	1755200	3 years	10.10.2013
21	Localization of flexible polymer chains on chemically heterogeneous surfaces	Dr. K Sumithra	CSIR	Chemistry	940200	3 years	28.10.2013



S.No.	Title of the Project	Principal Investigator	Funding Agency	Department	Sanctioned Amount	Duration	Sanctioned Date
22	Extracting the fermentation with surfactants to enhance butanol production	Dr.Pradip Baban Rao Dhamole	DBT	Chemical Engg.	2917000	3years	26.12.2013
23	Structure Based Rational Design and Synthesis of Mycobacterium Tuberculosis inhibitors	Dr.KV.G.Chandra Sekhar	DST	Chemistry	2200000	3years	13.12.2013
24	Elucidating signaling mechanisms in plant responses to drought stress mitigation by beneficial soil bacteria	Dr. Sridev Mohapatra	Seed grant	Biology	1370000	2years	10.02.2013
25	Development of personalized DNA markers in breast cancer patients for early diagnosis and prognosis using a non-invasive method.	Dr. K. Naga Mohan	Seed grant	Biology	1350000	2years	10.02.2013

### Details of the Sponsored Projects Funding Agency wise

#### Council of Scientific and Industrial Research (CSIR):

##### Dr. Anupam Bhattacharya

- **Title of the project:** Synthesis of modified TosMIC & BetMIC for use as key reagents in the synthesis of boronated heterocycles.
- **Sponsoring agency:** CSIR
- **Status:** Approved for support; Awaiting fund release.
- **Objective of the project:** Efficient synthesis of aromatic heterocycles represents an important aspect of synthetic organic chemistry. While innumerable methods have been devised over the years very few methods are generic in nature. TosMIC and BetMIC are pivotal in aromatic heterocycles synthesis in this respect as they can be used for synthesis of large number of structurally different heterocycles. Thus a careful design and synthesis of these reagents will ensure availability of diverse heterocycles for trial as potential anti-cancer compounds. The main aim of the proposal is to synthesize novel TosMIC and BetMIC reagents and to explore their application in the synthesis of heterocyclic compounds containing boron.

##### Dr. K. Sumithra

- **Title of the project:** Localization of flexible polymer chains on chemically heterogeneous surfaces
- **Sponsoring agency:** CSIR
- **Status:** Approved for support; Awaiting fund release.
- **Objective of the project:** To Localization of flexible polymer chains on chemically heterogeneous surfaces

**University Grants Commission (UGC)****Dr. Rahul Nigam**

- **Title of the project:** On the formation of Dwarf Elliptical Galaxies
- **Sponsoring agency:** UGC
- **Status:** Sanctioned
- **Objective of the project:** Much of the background has been worked out to finally work on the project problem. Project required a thorough knowledge of Halo formation model and application of this model to the CDM cosmology. My collaborators and I have gone through the literature and started writing the necessary codes to apply halo model algorithm in structure formation in universe. I had the opportunities to visit them in RRI and DU and the discussion sessions were very fruitful. We are confident of publishing a paper this year.

**Dr. Debashree Bandyopadhyay**

- **Title of the project:** Application of Micro-Environment property descriptor to study free energy changes in amyloidogenic protein aggregation
- **Sponsoring agency:** UGC
- **Status:** Sanctioned
- **Objective of the project:**
  - Latest version of the micro-environment program will be made open access via html link.
  - Construction of web server or micro-environment program.
  - Application of free-energy change based micro-environment property descriptor to understand protein-DNA and protein-protein interactions.

**Dr. Akhlad iqbal**

- **Title of the project:** Generalized convexity, hermite-hadamard Inequality on riemannian manifolds and their applications
- **Sponsoring agency:** UGC
- **Status:** Sanctioned
- **Objective of the project:** The main objective of this work is to contribute towards the development of convexities and Hermite-Hadamard inequalities with applications to other branches of mathematics. We shall: Study various types of convexities and generalized convexities, convex and preinvex functions defined on Euclidean spaces as well as on Riemannian manifolds.

We shall attempt to establish some geometrical interpretation of the previous known results. We shall study and try to explore the application of geodesics in solving some real life problems. Some nonconvex constrained minimization problems can be solved by writing them as convex minimization problems in Riemannian manifolds. We would like to consider the minimax programming problems and shall try to obtain the sufficient optimality conditions. Moreover, we shall study the Hermite-Hadamard inequality, which, we can say, is the first fundamental result for convex functions with a natural geometrical interpretation and many applications.

### **National Programme on Micro and Smart Systems(NPMASS)**

#### **Prof. Suman Kapur**

- **Title of the project:** Development of indigenous POC device micro channel/fluidic device for estimation of lipid profile in human plasma/serum
- **Sponsoring agency:** NPMASS
- **Status:** Sanctioned
- **Objective of the project:** To Development of indigenous POC device micro channel/fluidic device for estimation of lipid profile in human plasma/serum

### **Information Technology Research Academy (ITRA)**

#### **Prof. K. Srinivasa Raju**

- **Title of the project:** Integrated Urban Flood Management in India:Technology – Driven Solutions
- **Sponsoring agency:** ITRA
- **Status:** Sanctioned
- **Objective of the project:** To develop real-time flood forecasting models for urban areas in the country, assimilating data and information from satellite products, Doppler weather radars, automatic weather stations and state-of-the art numerical weather prediction and hydrologic models
  - To develop operational models for real time management of urban drainage systems using water level sensors and control systems algorithms integrated with GIS
  - To develop models and methodologies for communicating the forecasts to different levels of decision making mechanisms
  - To project the likely changes in the frequencies of high intensity rainfall using extreme value theory and stochastic weather generators and to examine the adequacy of capacity of the existing structural measures to cope with the changing climate
  - Demonstrate the application of the models and the end- to –end implementation integrating the models – sensors – decision framework through a pilot project
  - To lead the development of post-flood management training and educational material.

### **British Council**

#### **Dr. Chandu Parimi**

- **Title of the project:** Collaboration for quality teaching and research in the area of computational mechanics
- **Sponsoring agency:** British Council
- **Status:** Sanctioned
- **Objective of the project:** To Collaboration for quality teaching and research in the area of computational mechanics

### **Department of Biotechnology DBT:**

#### **Dr. Vamsi Krishna Venuganti**

- **Title of the project:** Non-invasive delivery of siRNA to treat melanoma
- **Sponsoring agency:** DBT
- **Status:** Approved for support; Awaiting fund release

- **Objective of the project:** Treatment of melanoma using novel nano carriers systems complexed to siRNA which will be administered topically through non-invasive fashion

#### **Dr. P Sankar Ganesh**

- **Title of the project:** Novel biomarker responses to validate acute toxicity of engineered nanoparticles and their physicochemical interactions in earth worm as a model bio indicator of nano toxicology (RGYI)
- **Sponsoring agency:** DBT,
- **Status:** Sanctioned
- **Objective of the project:** Novel biomarker responses to validate acute toxicity of engineered nanoparticles and their physicochemical interactions in earth worm as a model bio indicator of nano toxicology (RGYI)

#### **Dr. K V G Chandrasekhar**

- **Title of the project:** Synthesis and Biological Activity of Various Triazoles as Effective Antifungal Agents
- **Sponsoring agency:** DBT
- **Status:** Sanctioned
- **Objectives:** Synthesis of two key intermediates (1-((2-(2,4-difluorophenyl)oxiran-2-yl)methyl)-1H-1,2,4-triazole or 1-((2-(2,4-dichlorophenyl)oxiran-2-yl)methyl)-1H-1,2,4-triazole (4) mentioned in the proposal was completed and characterized by Mass and NMR spectroscopy. Further the intermediates were carried forward and successfully completed the synthesis of proposed series-1. Antifungal activity for the synthesized Series-I compounds is under progress. Equipments listed in the project proposal were purchased, installed and are being used for synthesis of the proposed compounds. Proposed series-II trails is under progress.

#### **Dr. Pradip Babanrao Dhamole**

- **Title of the project:** Extracting fermentation with surfactants to enhance butanol production
- **Sponsoring agency:** DBT
- **Status:** Approved for support; Awaiting fund release
- **Objective of the Project:** In view of the depletion of fossil fuels and growing demand for fuel there is a renewed interest of both government and private sectors for alternative energy sources. Biofuel especially ethanol and butanol have many properties similar to fuel and hence huge amount of research efforts are in progress. Unlike ethanol, butanol as a fuel has several advantages (high heat capacity, less affinity for water, easily mixable with gasoline etc.). However, butanol fermentation has a major limitation of end product inhibition. Fermentation results into very low butanol concentration consequently into high separation cost. Butanol above 20 g/L becomes toxic to the microorganisms and inhibits cell growth. Present project will develop a process for biobutanol production. The main limitation in butanol fermentation i.e. end product toxicity is addressed along with butanol separation. The proposed surfactant based extractive fermentation process will relieve butanol toxicity and enhance butanol concentration in the broth and reduce the downstream processing cost.

#### **Department of Science and Technology (DST):**

##### **Dr. N.S.K. Reddy**

- **Title of the project:** Novel minimal- solid lubricant mixture application method for performance improvement in turning.
- **Sponsoring agency:** DST
- **Status:** Sanctioned
- **Objective of the Project:** To Novel minimal- solid lubricant mixture application method for performance improvement in turning.

**Prof. N. Rajesh**

- **Title of the project:** Development of suitably customized polymers and clay based adsorbents for the effective removal of chromium from e-waste
- **Sponsoring agency:** DST
- **Status:** Sanctioned
- **Objective of the project:** A novel microwave assisted methodology has been developed using yeast immobilized in cellulose for the adsorption of chromium. The functional groups present in the microorganism and cellulose (hydroxyl, amino) are involved in the interaction with chromium. Batch studies were performed using different concentrations of chromium and various isotherm studies and kinetic parameters have been optimized. Column studies are in progress to remove chromium from a larger sample volume.

**Dr. Palash Mandal**

- **Title of the project:** Role of adipose in ethanol-induced tissue injury
- **Sponsoring agency:** DST
- **Status:** sanctioned
- **Objective of the project:** To determine the effect of chronic ethanol consumption on Adipose Tissue Regulation of Adipokines, fatty acid metabolism and liver tissue injury.

**Dr. Kannan Ramaswamy**

- **Title of the project:** Investigation of magneto-optical effects in composite magneto-plasmonic nanostructures for sensing applications
- **Sponsoring agency:** DST
- **Status:** sanctioned
- **Objective of the project:** To Investigation of magneto-optical effects in composite magneto-plasmonic nanostructures for sensing applications

**Dr. Sridev Mohapatra**

- **Title of the project:** Delineating the impact of plant growth promoting rhizobacteria on plant polyamine metabolism: novel insights in to plant –PGPR interactions
- **Sponsoring agency:** DST
- **Status:** sanctioned

**Objective of the project:**

- Hiring of man-power: One Junior Research Fellow with an M.Sc. degree in Microbiology was appointed for the project on the 1st of August 2013.
- Purchase of equipment:
  - a. A set of 4 pipettes (Corning) with different volumetric capacities has been purchased.
  - b. A purchase order is in process to procure a Real-Time PCR (Applied Biosystems) machine.
- Experimental design for molecular studies has been done.
- Design of PCR primers for gene expression studies and ordering of molecular biology based chemicals have been done (P.O. raised and order placed).

**Dr. Srikanta Dinda**

- **Title of the project:** Development of sythstic resin product
- **Sponsoring agency:** DST
- **Status:** sanctioned
- **Objective of the project:** In view of the commercial importance for the development of environmentally friendly processes and products, the present investigation was undertaken with some specific objectives. The first and foremost objective of the present research project is to develop and analyse greener routes that replace hazardous raw materials by benign ones. In tune with this, ketonic compound (cyclohexanone) offers itself as an excellent candidate in the manufacture of synthetic resin, and has the potential of replacing more hazardous phenolic and aldehyde compounds.
- The second but equally important objective is to develop a commercially important value-added resin product which should be compatible with existing coating materials and hence can replace the existing one by a benign one. The third objective is to optimize the operating parameters to maximize the yield and quality of resin product. Following steps or milestones has been workout to commence and progress the above said project.

**Dr. Vamsi Krishna Venuganti**

- **Title of the project:** Transcutaneous delivery of liposome sirna complex to treat skin cancer
- **Sponsoring agency:** DST
- **Status:** sanctioned
- **Objective of the project:** Treatment of non-melanoma skin cancer using gene silencing molecules delivered after complexation with liposomes

**Dr. K.Nagamohan**

- **Title of the project:** Development of a cost-effective membrane and DNA chip-based detection of mutations associated with multiple drug resistant-tuberculosis
- **Sponsoring agency:** DST
- **Status:** sanctioned
- **Objectivity:** Development of a cost-effective membrane and DNA chip-based detection of mutations associated with multiple drug resistant-tuberculosis

**Dr. Shiv Chaitanya**

- **Title of the project:** Study of decoherence and entanglement in linear system and their applications
- **Sponsoring agency:** DST
- **Status:** sanctioned
- **Objective of the Project:** The main objective is to study of decoherence and entanglement in linear system and their applications

**Dr. K V G Chandrasekhar**

- **Title of the project:** Structure based rational design and synthesis of mycobacterium tuberculosis inhibitors
- **Sponsoring agency:** DST
- **Status:** sanctioned
- **Objective of the Project:** The main objective is to study of structure based rational design and synthesis of mycobacterium tuberculosis inhibitors

**Dr. Ramakrishnan Ganesan**

- **Title of the project:** Photocurable organic-inorganic hybrid precursors for the fabrication of metal oxide micro/nanostructures.
- **Sponsoring agency:** DST
- **Status:** Sanctioned
- **Objective of the project:** The project is aimed to develop new type of photocurable organic-inorganic hybrid precursors. By employing such hybrid precursors, one can fabricate high-resolution metal oxide micro/nanostructures using the photolithography-based techniques. This strategy would enable the available complementary metal oxide semiconductor (CMOS) technology to fabricate metal oxide micro/nanostructures in a high-throughput fashion.

**Seed Grant****Dr. Sridev Mohapatra**

- **Title of the project:** Photocurable organic-inorganic hybrid precursors for the fabrication of metal oxide micro/nanostructures.
- **Sponsoring agency:** Seed Grant
- **Status:** Sanctioned
- **Objective of the project:** General impact of beneficial soil bacteria on Arabidopsis thaliana health and water retention capacity on exposure to drought stress
  - Identifying the mechanisms leading to enhanced drought tolerance
  - Identifying the signaling pathways leading to enhanced drought tolerance
  - Change in expression of key genes leading to the accumulation of the compatible solute, proline and hence, determining the rate limiting step in enhanced proline accumulation

**Dr. K. Naga Mohan**

- **Title of the project:** Development of personalized DNA markers in breast cancer patients for early diagnosis and prognosis using a non-invasive method.
- **Sponsoring agency:** Seed Grant
- **Status:** Sanctioned
- **Objective of the project:** To development of personalized DNA markers in breast cancer patients for early diagnosis and prognosis using a non-invasive method.

'Annexure B3-7'

(13 Pages)

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**LIST OF EQUIPMENTS PROCURED DURING THE YEAR 2013**

Item Description	Quantity	Bill Amount	End User	Ledger Folder			
High performance 6-1/2 Digit DMM and 1751 Test Leads ( 220 V Version) Code: 2000/E, Make: Keithley	1	106733	Dr Jayanty Subbalakshmi	Equipment			
Horizontal flow 4' x 2' (Laminar flow hood)	1	90000	Dr D Sriram	Equipment			
SONEY LED 40"EX650	1	57000	ESD	Equipment			
HP Laser Jet M1536DNF Printer	1	24250	Pharmacy	Printer			
Micro Electronics Lab Kits	20	187425	EEE	Equipment			
MIAC-60V PORTABLE VOLT METER	2	154434	EEE	Equipment			
MIAC-150/300/600V PORTABLE VOLT METER	7						
MIAC-2.5/5A AMMETER	6						
MIAC-10/20A PORTABLE AMMETER	7						
MCDC 300V PORTABLE VOLT METER	6						
MCDC 2.5/5A DUAL RANGE PORTABLE AMMETER	6						
MCDC 10/20A PORTABLE AMMETER	6						
2.0KVA, 230V/115 STEPDOWN	1						
ATVD-15A,15P-1	2						
ATVD-15A,15P-3	2						
SPW1(2C-3P)-5/10A,150/300/600V	3						
NON CONTACT TACHOMETER	4						
Digital Flocculator	1				38840	Civil Engg	Equipment
magnetic Stirrer Mod.No 1MLH	15				79380	Civil Engg	Equipment
Digital Storage Oscilloscope Agilent and Model DSO1102B(IGs/S), 2 channel along with standard Accessories like probes etc	5	254625	EEE	Equipment			
Digital Conductivity meter with conductivity cell type,Make : Elico Model: CM 180	3	69526	chemistry	Equipment			
Digital pH meter with combined pH electrode Make: Elico - Model: LI120							
pH electrode							
Conductive Cell							
Solar Photovoltaic Training Kit A. PV Modules Stand -1 nos B. Power Conditioning Unit with user defined control C. Data Logger and Plotter with PC interfacing D. Accessories	1	189000	Physics Dept	Equipment			
Rat TNF alpha ELISAReady - SET- Go! IOx 96 tests with plates, Cat. No. 88-7340-86	1	46000	Dr A Sajeli Begum	Equipment			
Spinwintm MC-02 Micro Centrifuge Make: Tarson	1	27824	chemistry	Equipment			
IKA Stirrer with hot plate (CMag HS4	2						
PHY-1000 Analog Electronics Trainer	18	189000	EEE	Equipment			
PHY-103 FAR 0.2HZ Function Generator	20	128520	EEE	Equipment			
Work order for Ancillary Work installation, Testing & Commissioning of VRF Units at Tele Presence Room	1	156950	ESD	Equipment			
Air distribution unit 14Hp out door	4						
VRF Indoor4.0,3.0 TR	122						
Refrigerant piping	104						
drine pipe 25 mm	1						
refrigerant gas-R410A	55						



Item Description	Quantity	Bill Amount	End User	Ledger Folder
Transmission wiring				
Projector, EPSON EB-95 3LCD TM display Technology, 2600 ANSI Lumens, 1024 x 768 Native Resolution, 4:3 Native Aspect Ratio, 2000 : 1 Contrast Ratio	1	51525	Pharmacy	Equipment
LENOVO Thinkstation S30 Xeon E5-1603 2.8GHz, 4 Core, 16GB ECCRAM, 1TB HDD, NVIDIA Quadro 600 -1 GB, DVD-RW, No. of Displays supported - 2, DOS, 21 inc Monitor, 3 years onsite warranty	1	120068	Chemistry	Computers
LENOVO 3597BH9 Intel H61 Chipset, core i3-2120 processor 4GB RAM, 500 GB HDD, DVD-RW, 18" Monitor, DOS, 3 yrs onsite warranty	2	61005	Chemistry	Computers
Berthold Detection Systems	1	4474513	Dr D Sriram (Euros 5496)	Equipment
Digital Multimeter Make: Amprobe Model: AM-220	20	77737	EEE	Equipment
HPML 150G6 SERVER HP 1.0TB HDD HP 8.0GB PC3-10600R 22" HP TFT MONITOR HP Z210 WORKSTATION 22" HP TFT MONITOR	1 2 2 1 3 3	303450	EEE	Computers
867 pH Module with tiamo light Ion selective electrode-Fluoride electrode cable Plug F1M AG/AGCLD Reference Electrodes SG WOC: KCL B type Cable	01 01 01 01 01	267565	Dr N Rajesh Euros 3180)	Equipment
10KVA Voltage Stabilizer	1	34350	Dr Ramakrishna Vadrevu	Equipment
IKA Stirrer with Hot Plate (cmag HS 4)	4	107110	Chemistry	Equipment
Dell Inspiron 15Z 5523 (Laptop)	1	59900	Prof M B Srinivas	Laptop
Power Quality & Energy Analyzer with clamp Make: Fluk Model: 434-II Scope Meter 4Ch, 200MHZ, Colour UNI clamps Make: Fluk Model: 190-204/UN Digital Multimeter Make: Amprobe Model: AM-220	01 01 01	902912	EEE	Equipment
precession Surface Grinding M/C (Model:452P) perment Magnetic Check 600x200mm turret Attachment Head lighting Equipment Electronic pump & Cooling Filter Radius & Angle Formating AttachmentS	1 1 1 1 1 1	1253457	Work Shop	Equipment
Nano REV 5.0 Air Stm Sample Kit Vol-1 TIP KIT Vol-1 Sim-Data Acquisition and analysis Software	1 1 1 1	739125	Physics Dept	Equipment
Visitors Chairs	19	33176	Chemical Engg EEE	Equipment
Air Curtain	1	26335	Biology	Equipment
Xerox Work Centre 5745 (248926) with 2Kva Stabilizer	1	305474	ARCD	Equipment
AWB NO:60336620006 HAWB NO:10736806 B/L NO:9371701/ 21/02/13 ONE PACK (Florescence Microscope Model: CX41)	1 PACK	456076	Dr P Yogeshwari	Equipment
Power vault Storage	1	397388	Dr C R Hota	Equipment
2TR 3Star V Hi Wall Split AC-3HW24SVB1 5KVA BLUE STAR LINE STABILIZER Condenser Stand	2 2 2	90000	Medical Centre	Equipment

Item Description	Quantity	Bill Amount	End User	Ledger Folder
Apple Iphone5 16GB IMEI/MEID/013421003338673 S/L: C33JWEMPDTED	1	45500	Prof M B Srinivas	Equipment
1TR 3Star V HI Wall Split AC-3HW12SVB1 5KVA BLUE STAR LINE STABILIZER Condenser Stand	2 2 2	90000	Biology	Equipment
Web Cam Logitech C270 Head Phone Logitech H110 External Harddisk Segate 1TB Scanner HP 2410	10 5 2 1	30150	ESD	Equipment
Nokia Lumia 920 IMEI: 354149057176338 Mlan: 4c25789ec328	1	37000	Prof M B Srinivas	Mobile Phone
3 star 2.0 TR split A.C (Serial No: 13A01553) 5KVA Stablizer	1 1	45000	Dr D Sriram	Equipment
IBM X3620M3 Server 7376IVB IBM 8GB RAM 49Y1436 IBM 600GB 15K 6GBps SAS Hard disk 44W224 IBM 460W Power Supply 81Y6754 computer cable Lenova 20.6" Led monitor NETFOX 42U 600x1000 with glass door NETFX Fourfantry Sheft 100 Netfox Keyboard Tray NETFOX Horz PDU 5-15amps socket NETFOX Mounting hardware	1 3 3 1 2 1 1 1 1 1 1 1 1	246204	CAD Lab	Computers
LENOVO M72E Think centre 3597CU7	60	1581300	CAD Lab	Computers
HP LASERJET PRINTER M1536DNF MFP	1	24250	EEE	Printer
3 Phase Resistive phase Load, 415V,10A, variable, 5 steps in each phase	1	31774	EEE	Equipment
Slotting Machine DALJIT Brand Model: DS-10 250mm (10")	1	278250	Work Shop	Equipment
Projector Epson SO2 S/N:RPMF280684L, RPMF280699L Router Wirless Cisco E3200 S/N: 10B10C64200334/146 Patch Card Cat6 2mts	2 2 50	70350	CS & IS	Equipment
Dell Inspiron 15Z Ultra Book (Laptop)	2	119800	ESD	Laptop
Oven Revolutionary Microprocessor Centrifuge R-8C BL Angel Head Vacuum Pump	1 1 1 1	78632	Dr N Rajesh	Equipment
IBMX 365 M4 SERVER 791514A IBM 8GB RAM 49Y1397 IBM INTEL XEON 2.0GHZ PROCESSOR 69Y5326 IBM 300GB SFF 10K HDD 90Y8877 IBM 550W RPS 94Y6668 Computer Cable, IBM DS3512 SAS Signal Controller 1746A2S IBM 1TB 7200RPM SAS Hard disc 49Y1876 IBM 6gbs Sas Hba 46m0907 IBM Sas cABLE-39R6531	2 14 2 2 2 4 1 8 2 2	1065000	CS & IS	Computers
HP Probook Laptop (HP Probook 6570B) with carry case	3	190500	Placements	Laptop
s s sowbagya Wet Grinder 15Lts Cap 1.5 HP Motor Smart Pulvariser 3 HP Motor sowbagya Potato Peelar 20Kgs	1 1 1	62000	SWD	Equipment
Water Cooler SDLX-15150 Stablizer 5Kva	1 1	48784	SWD	Equipment

Item Description	Quantity	Bill Amount	End User	Ledger Folder
Cold Setting compound	2set	69233	Mechanical Engg	Equipment
PMC FLAW CHECK PENETRANT PP-110B	2			
PMC FLAW CHECK DEVELOPER (PD-130B)	2			
PMC FLAW CHECK PENETRANT PP-110B	2			
PMC FLAW CHECK CLEANER PC-120B	2			
PMC FLAW CHECK DEVELOPER (PD-130B)	2			
PMC VISFLUOR CHECK VPP-211B	2			
PMC FLAW CHECK PENETRATE PP-110	2			
PMC FLAW CHECK CLEANER PC-120	2			
PMC FLAW CHECK DEVELOPER PD-130	2			
ELECTRO MAGNETIC YOKE	2			
UV LAMP ASSEMBLY	1			
FLUORESCENT OIL BASED POWER	1set			
NON FLUORESCENT POWER (OIL BASE)	1			
Magnetic Field Indicator	1			
Residual field indicator	1			
spare bulb	1			
IEICOS Loding Frame with accessories	1	6227194	Civil Engg	Equipment
16 Port D-link GB Managable Switch	1	21000	Dr Subhas gosal	Equipment
Cat 6 2Mt Patch Cards	4			
All in one Printer HP2515	1			
PDU Horizontal	1			
XEROX WORK CENTRE 6505	1	54600	GAU	printer
Sartorius Precision Balance BSA 423 SCW	1	70350	Chemical Engg	Equipment
power connect 6224-24 port GB ether net layer switches	1	63109	Dr C R Hota	Equipment
Security Cabin. Size 8'x6' feet height to sit 2 person	2	124000	Security Devision	Equipment
Heating Jackets	1	26020	Dr V R Vinayak rao	Equipment
Syring Pump	1	54350	Dr N S K Reddy	Equipment
Symphony winter model 180 watt, 75sq. meter coverage	12	133278	SWD Hostels	Equipment
DSP Starter Kit DSK TMS 320C6713 With CCS	20	526575	EEE	Equipment
Dell Optiplex 9010	1	131364	Prof K S Raju	Computers
BPL ECG Machine Model 6208 View	1	75884	CWD	Equipment
BP Apparatus, Mercury	1			
BP Apparatus – Digital	2			
Stethoscopes EB-100	2			
Ophthalmoscope, Make Heine,	1			
Alphabets Rotating Drum	1			
Thermometers – Digital	3			
Thermometers for Head	1			
Weighing Machine	2			
Laryngoscopes – 3 Blades set	1			
Belkin Basic Wireless Router	1	101783	Dr C R Hota	equipment
Netgear wireless Router WGr614	1			
Acer Iconia B1-A71 Tablet	1			
Combo of Samsung Galaxy Tab 2	1			
HCL ME Tablet Y3	1			
Samsung Galaxy S3	1			
Samsung Galaxy Grand Duos I9082	1			
Nokia Lumia 620 cyan	1			
F-Milling setup tool Dynamometer and Indicator 3' self centering vice	1	45419	Dr S P regella	equipment
Autoclave	1	138128	CHEMICAL ENGG	equipment
Thermal Conductivity Apparatus	1	39375	Dr V R Vinayak rao	equipment
Muffle Furnace TI-58HTB	1	49005	CHEMICAL ENGG	equipment
zeeman Effect Apparatus	1	289832	Physics Dept	equipment
Flow Through Orific and Mouth Pice Discharge Over Notches	1 1	699843	Mechanical Engg	equipment

Item Description	Quantity	Bill Amount	End User	Ledger Folder
Reynolds Appratus	1			
Electrical Analog Apparatus	1			
Submersible Pump Test Rig	1			
Hydraulic Ram Test Rig	1			
Centrifugal Blower Test Rig(Variable Speed)	1			
Centrifugal Blower Test Rig(Constant Speed)	1			
Vertical & Horizontal Condenser	1			
Digital Storage oscillocope	5	155400	EEE	equipment
stereo Trinocular microscope	1	56700	Mechanical Engg	equipment
EPSON EB-95 Projecores	1	51525	EEE	equipment
Temperature Indicator Display	2	27651	Mechanical Engg	equipment
DPM Voltmeter (Nutronics)	2			
DPM Amimeter (Nutronics)Digital Tempurature	2			
Controller Display	2			
J Type Thermocouple	1			
K Type Thermocouple	1			
Sowbhagya Wet Grinder	1	34200	SWD	equipment
HP laserjet printers	1	24250	Placements	printer
CAMPBELLS Rain Gauge System model TE25M	1	42000	Civil Engg	equipment
dell Precision T1650 Chassis	1	94831	Dr N S K reddy	Computers
Oscilloscope Digital Phosphor	1	410000	Dr N S K reddy	equipment
Logitic Laser pointer	2	441372	ESD	equipment
2.1 Speakers	2			
Wireless Lapel Microphone(Shure)	6			
Wireless Handheld Microphone(shure)	2			
Yamaha Portable PA System Stagepass	4			
16 Channal data Loger	2	263562	Dr V R Vinayak rao	equipment
32 Channal Software for loger	1			
Battery for Back up	1			
Digital Vernier Caliper	1			
Testo Sound Level Measuring Instrument	1			
Testo Light Intensity Measuring Instrument	1			
Rs-485 to Ethernet Cover	1			
Temperator SensorProb Type	250			
Temperator Sensor Sitcker Type	50			
SONY NEX-VG30EH HANDY CAM (Black)	01	201000	ESD	equipment
CANON EOS 60D DIGITAL SLR CAMERA WHITE	01			
18-135 IS LENS				
Water Bath Thermostatic Make: CINTEX	1	20352	Mechanical Engg	equipment
MEASURING MICROSCOPE STM6-123B	1 set	650000	Dr N S K Reddy JPY	Equipment
Standard Set			1101695)	
four ball Tester With Suitable PC (Dell Make)	1	687000	Dr N S K reddy	equipment
DELL PRECISION T3600CHASSIS, 635w	1	159963	Dr Murari R R Varma	Computers
SUPER MICRO 6000 SERIES 2U SERVER	1	849030	Dr Subhas gosai	Server
SUPER MICRO 6000 SERVER 1U SERVER	2			
HP LAPTOP 450 (C0R83PA) Core i5, 4GB DDR	25	866250	IPC	Laptop
RAM, 14"Display with Back pack				
T100 thermal Cycle Lot: 621BR12131	1	249999	Dr Sridev Mohapatra	Equipment
Skid Resistance Test Cat No:AIM 580	1	72827	Dr V R Vinayak rao	Equipment
TATA ACE HT BS IV – High Deck	1	380878	GAU	Vehicle
Apple Mac Book Air 1.8Ghz Dual Intel Core	1	76176	Dr Rahul Nigam	Laptop
i5(MD231Hn/A)				
SI.No: SC02KGRYGDRVC				
ZEN3600 ZET ASIZER NANO-ZS WITH 633mm	1	1915447	Pharmacy	Equipment
He-Ne LASER				
HPC Implementation & Integration Service		56180	Dr Subhas gosai	Equipment
4KVA servo Controlled Voltage Stabilizer	5	85932	Pharmacy	Equipment

Item Description	Quantity	Bill Amount	End User	Ledger Folder
DELL Procision T1650 Chassis, intel Xenon Processor E3-1270 (Work Station)	1	96850	Dr Y V D Rao	Computers
Spectramax RM4 Multi Detection Reader four Mode Multimode Micro Plate Reader Port with Softmax PRO Software	1	2139239	DR VAMSI KRISHNA VENUGANTI	Equipment
No load and load test on Dc Shunt Generator (5HP) Hopkinson's test (5HP) No load and load test and speed control on DC Shunt Motor (5HP) load test on DC series motor (HP) No load test and short circuit test on alternator (5KVA) Synchronization of an alternator to bus bars (5KVA) AC and DC distribution panel- 30 outlets (15 nos AC and 15nos DC)	01 set 03 set 03 set 01 set 03 set 03 set 01 no	2116876	EEE	Equipment
FMP-1E FLASH MASTER PERSONAL FLASH CHROMATOGRAPHY SYSTEM	1	216133	DR K V G CHANDRA SEAKER	Equipment
Emmissivity Measurement Apparatus	1	59629	CHEMICAL ENGG	Equipment
SONY NEX-5RL DIGITAL CAMERA S013446779Q	1	36790	Dr D Sriram	Equipment
Melting Point/freezing point apparatus Precision Model : VMP-DS,Make: VEEGO	1	53328	Chemical Engg	Equipment
LABTOP Microcontroller (PID) based Plant Groth Chamber Cat No: LGC-600/g Sl: 13073582 instalation charges	1	300000	Dr Sridev Mohapatra	Equipment
Reciprocating Pump Test RIG Forced & Free vortex apparatus Heat Transfer in Natural Convection Heat transfer in forced convection	1 1 1 1	217559	Chemical Engg	Equipment
Mini Fresh 4400 Coffee vending Machine masala tea 5kg, lemon tea 5kg, classic coffee 5kg, Diet coffee 5kg, tea Cups 15pk	1	30605	Maintenance	Equipment
weed Cutter honda make brush Cutter Model:UMK 435	1	29218	Maintenance	Equipment
RV 10Digital V Rotary Evaporator	1	162750	chemistry	Equipment
vacuum pump promivac vaccum gauge with regulator	2 2	37356	chemistry	Equipment
2TR 3 Star Wall Split AC 5KVA Blue Star Stabilizer Condencer Stand EXT Copper Pipe	2 2 2 11M	99350	Pharmacy	Equipment
"1.5 TR 5star hi-wall Split AC-5HW18ZBW 4KVA Blue line stabilizer condenser Stand" installation charges	1 1 1	44650	CAD Lab	Equipment
Vertex genius 3 Indian Version VG 3.2 One hand attachment	2 1	30870	Pharmacy	Equipment
Dropwise and filmwise condensation apparatus Make: Indigenous Critical Heat Flux Apparatus or Pool Boiling heat transfer unit Heat Transfer Through Composite Wall Thermal conductivity of Liquids	01 No 01 No 01 No 01 No	216611	Chemical engg	Equipment
RO water plant at Mess I & II		500000	SWD	Equipment
LG 225 BE 45 REFRIGERATOR LG 314 PMG 4 REFRIGERATOR	1 2	73900	DR D SRIRAM PHARMACY	Equipment
Sintex water tank cap: 3000 lts	3	68483	SWD	Equipment
Bench top PH Meter with triod electrode Model: ECPHTUTOR-D	2	79800	Pharmacy	Equipment
Rotary Vacuum Pump 250 L/M with analog pirani	1	101572	Dr Souri Banerjee	Equipment

Item Description	Quantity	Bill Amount	End User	Ledger Folder
gauge system, 1 meter length stainless steel bellows, KF25 cross with two KF10 flange for pirani gauge & KF 25 Air admittance valve and Connecting centering rings with O rings and clamp				
SINTEX WATER TANK 5000 LTS	1	46155	Maintenance	Equipment
SINTEX WATER TANK 500 LTS	2			
Steem Baltar Generator	1	69500	SWD	Equipment
TATA INDICA V@ (LS) Diesel BSII	1	453640	GAU	Vehicle
TATA Winger Ambulance	1	710000	GAU	Vehicle
24" EXHAUST FANS	3	29459	chemistry	Equipment
4 Sqmm S/Core 90Mts (poly) Cab)	1			
Research plus 3 pack, option1 (0.5-10ul/10-10ul/100-1000ul) Batch C125436L	1	43279	DR VAMSI KRISHNA VENUGANTI	Equipment
Refrigerated Table top Centrifuge Low Temperature Stup for Electrica Measurments	1 1	1802661	Pharmacy	Equipment
dso-10cG	15	2209770	EEE	Equipment
Glass cuvetts	3	47134	chemistry	Equipment
Conductivity Meter CM-180	2			
Conductivity cell Type CC-03B (2Pin)	2			
Conductivity Cell Type CC-03B (1Pin)	2			
HP LAPTOP 650 (C0S24PA)	20	640000	IPC	Laptop
Emona Equipments for ETT -101 "BISKIT " EMONA ETT – 101 Multi -experiment single board telecommunication Tainer	18	1446940	EEE	Equipment
HOT AIR OVEN 300 C MODEL OOG G-90	1	77125	Chemical engg	Equipment
Perfusor Compact - Syringe Pump S.I . No . 188730 Make : B Braun	1	38850	Chemical engg	Equipment
Set of Prerequisites item for SMART SORB 93 Surface Area Analyser	1	153997	Chemical Engg	Equipment
Laptop microcontroller Based Shaking Incubator cat: LSI-125/R	1	200000	Dr Sridev Mohapatra	Equipment
Micro Lab Centrifuge 8 Tubes of 0.2ml	2			
Catalyst 2960s 48GigE, 4xSFP Lan Base	2	463206		Equipment
Catalyst 2960s 24GigE, 4xSFP Lan Base	1			
Cisco 1000 Base-LX/LH SFP Transceiver module for SMF, 1300nm Wavelength	3			
SMBS 8X5xNBD Cat 2960s Stk 48gigE 4XSFP Lan Base Per Year	2			
SMBS 8X5xNBD Cat 2960s Stk 48gigE 4XSFP Lan Base Per Year	1			
Regulator	1	41272	Pharmacy	Equipment
Nitrogen Cylinder With Gas	1			
Argon Cylinder with Gas	1			
Air Cylinder with Gas	1			
BFS-345S Vestfrost single solid door upright freezer	1	68520	Pharmacy	Equipment
Electrical Wiring Charges for AC & DC Distribution panel to 30 Tables from main power supply load test on DC Series motor (5HP) Kerloskar make 3.5KW/220V/1500 rpm DC series motor, Machanical loading arrangement	1 2	294838	EEE	Equipment
HP PRO 3330MT PC with DVD RW	40	4809966	IPC	Computers
HP PRO 3330MT PC with out DVD RW	140			
IKA RCT Basic IKAMAG Digital round top stirring hot GLOV NITRILE BLUE L 1000/CS 01	3	85050	Dr Yogeeswari	Equipment
Water Chiller	1	162750	DR K V G CHANDRA	Equipment

Item Description	Quantity	Bill Amount	End User	Ledger Folder
temp Range: 20C to RT Bath Volume:3 Lts Cap: 20C to 300 Watts			SEAKER	
Samsung Galaxy Tab3 T311 SN: 357397/05/121817/9	1	25800	Dr Rahul Nigam	Phone
AQUA GUARD CLASSIC WATER FILTER CUM PURIFIER	3	25470	Maintenance	Equipment
3 KVA APC UPS Model:SUA3000UX1 SMF Batteries 12V,42Ah Make:Amar raj Qty-08	2	119900	Physics Dept	Equipment
LENOVO M92P Think centre 32123T7 #PGBA057/PGBA058 LENOVO Lt2252p WIDE MONITOR 2572MB1 #V153747/V153751 Segate 2TB Sata Hard Disk #W1E4BFVA/W1E4BFN9 #W1E4BG6G/W1E4BFL5 4 2GB Graphic Cards	2	163758	Dr Debashree Bandyopadhyay	Computers
Boston 1U server solution system validated hardware, 2x intel Xeon six Core 2.3 Ghz		483054	Dr Debashree Bandyopadhyay (USD 7800)	Equipment
Weight Lifting Set Nelco 182 Kgs.	1	76922	SAC SWD	Equipment
Aerofit Chrome Dumbbells with Rubber Head	1	75165	SAC SWD	Equipment
Single Phase Resistive Load 230V/20A 12 steps Three Phase Auto Transformer Input 415V Output 0-470V/10Amp- AE make	09 03	192360	EEE	Equipment
Thermo Scientific Nunc Immuno Well Strip 400ul 8 Well Per Strip Part No: 12565129	2	33159	Dr Suman Kapor	Equipment
NEW ELECTRICAL E-8 STUDENT KYMOGRAPH STUDENT JAR BATH: (ORGANBATH) THERMOSTATIC	02 02	49526	Pharmacy	Equipment
Biological low Presur Chromatography system with Model 2110 Fraction Collector & Lp data view software,220/240v Cat: 7318337	1	2300000	DR D SRIRAM	equipment
2 TR WATER CHILLER Model: SAW-60S	1	152301	Physics Dept	equipment
16 channel data logger with rs 485 communication port, print port supply: 230v ac input: rtd (pt-100)	1	45013	Dr V R Vinayak rao	Equipment
WATER COOLER MAKE BLUE STAR MODEL: SDLX15150 V-GUARD 4KVA STABILIZER SL NO: SDLX15150A13VO2612, SDLX15150A13VO2788,	2	92399	Maintenance	Equipment
WATER COOLER MAKE BLUE STAR MODEL: SDLX15150 V-GUARD 4KVA STABILIZER SL NO: SDLX15150A13VO2784, SDLX15150A13VO2581, SDLX15150A13VO2772, SDLX15150A13VO2668,	4	184800	SWD HOSTELS	Equipment
Emona Equipments for ETT -101 "BISKIT " EMONA ETT – 101 Multi -experiment single board telecommunication Tainer	4	368536	EEE	Equipment
DEEP FREEZER MAKE: BLUE STAR MODEL: CHF500A SL NO: CHF500A13M18147	1	26800	Dr Suman Kapor	Equipment
ESA 86/88E 8086/8088 based, low cost, Microprocessor trainer with on board USB port, LCD and provision for Optional PC keyboard. ESA BTR BKUP ( battery backup for RAM) ESA PC-KBD ( PC Keyboard ESA PSM2 ( power supply $\pm 5V @ 3A$ : $\pm / -12v @ 250-$ Ma; $\pm 30v @ 100Ma$ )	5 5 5	41068	EEE	Equipment
AQUA GUARD HIFLOW UV WATER FILTER CUM	4	37996	SWD HOSTELS	Equipment

Item Description	Quantity	Bill Amount	End User	Ledger Folder
PURIFIER				
ESA MCB 51-2 Single Board Computer Based on 8051 ESA PS M2 Power supply;±5V@3A;+/-12V@250mA+30V@100ma	10 10	79196	EEE	equipment
Samsung Refrigerator 26FAJ4ASE 235Lts	2	41340	Dr K Naga Mohan	equipment
Canon IPF 605 Plotter (Along with Stand)	1	112800	Civil Engg	equipment
HP Laserjet Pro 300 Colour MFP M375nw Printer	1	53500	Dr K Naga Mohan	Printer
Samsung Refrigerator 26FAJYASA 5 STAR 253 Lts with stand	1	21000	Prof Suman Kapur	equipment
Blue Star Water Coolers 40 Lts mosel : SDLX240 V Guard Stabilizer	2 2	52544	Placements TBI	equipment
Epson Scanner DS 50000 (A3 Size)	1	71500	Civil Engg	equipment
Mx 3005P QPCR System 230V W/notebk Comp	1	679594	Dr Palash Mandal	equipment
BFS-345S Vestfrost Single Solid Door Upright Freezer	1	90200	Dr K Naga Mohan	Equipment
Outdoor High Speed Dome Camera Junction Box Cat 6 Cable HDPE Pipe 1" 2Corex1.5Sqmm Power Cable VMS/Video Management Soft Ware Computer Server Poles/8Mts High Samsung Monitor Inst. & Commssioning for PTZ Camera Digging of Soft Soil	3 3 305 262 300 3 1 1 1 3 342	771049	SWD	Equipment
QUANSER EQUIPMENT QUBE Rotary Servo Real Time Control System	15	4451602	EEE	Equipment
Brilliant III Ultra-Fast SYBR QPCR 10-PK Paq5000 TM DNA Polymerase, 5000 U MX3000 INSTALL PLATE,B-ACTIN	1 2 1	87728	Dr Palash Mandal	equipment
PHY-1002 Universal Digital Lab Trainer Kit Buy Back Kits	26 10	314869	EEE	equipment
16 channel data logger with rs 485 communication port, print port supply: 230v ac input: rtd (pt-100) Temperature Sensor PT 100 DIN Probe type with 1mts long teflon cable	02 48	95468	Dr V R Vinayak rao	equipment
EPSON LCD Projectors (Model EB-X 14 )	1	40075	TBI	Equipment
DELL OptiPlex 9020 All in One	1	83026	Dr D Sriram	Computers
GPS Kit with USB Interface XBEE USB Dongle XBEE Breakout Adapter XBEE S2 Wireless Module	4 nos 4 nos 4 Nos 4 Nos	21830	EEE	equipment
Oscilloscope Model: TBS1062 Make: Tektronix	2	50400	EEE	Equipment
Oscilloscope Model: TBS1062 Make: Tektronix	17	481320	EEE	Equipment
Digital Multimeter Model: AM-220 Make: Amprobe	12			
Optima tmMax-XP Tabletop Ultracentrifuge SI No: CTZ13L04 Tube Topper, Cordless (Great Britain) MLA-150 Fixed Angle Rotor Package, Titanium, SI No:13U494 Spacer, QS 11mm, Set of 8 PA QS TUBES 1.5ML BOX 50	1 1 1 1	1470000	Prof Suman Kapur	Equipment
Orbital Shaker Model: CIC-8 Make: CINTEX Extra for multiple Platform Vacuum Manifold as per Diagram	1 1 1	172094	DR K V G CHANDRA SEAKER	Equipment



Item Description	Quantity	Bill Amount	End User	Ledger Folder
PASCO Equipments interference & Diffraction of Light (EX-5545) 850 universal Interface (UI-5000) PASCO Capstone Site license (UI-5400) Accessory Photogate (ME-9204B) Bridges (EX-5548) 850 Universal Interface (UI-5000) Complete E/m system (SE-9625) Basic digital Multimeter (SE-9786A) Photoelectric Effect (EX-5549) 850 Universal Interface (UI-5000) Speed of Light Experiment (EX-9932)	1 Nos 1 Nos 1 Nos 2 Nos 1 Nos 1 Nos 1 Nos 2 Nos 2 Nos 2 Nos 1 Nos	2151617	Physics Dept	Equipment
GC Column for Fames Analysis HP88 Cat No: 112-8867, HP-88 60m, 0.25mm ID, 0.2um	60669	69466	Chemical Engg	equipment
Metrohm "Ion Chromatograph"	1	2004230	Dr N Rajesh (CHF 29500)	Equipment
HP Printer 1213 NF (CNJ8DD84WM) Segate HDD 1TB External Hardisk (NA47HNAS, NA47HNCS)	1 2	25350	ERP	Printer
Dell Precision T3600 Chassis, 635W 1 Intel® Xeon® Processor E5-1607(Quad Core, 3.00GHz, 10MB), 2TB Hard Drive With Windows 7 Professional 64 Bit	1	153357	Dr K Naga Mohan	Computers
OptiPlex 9020 All in one 23" Touch LCD, 4th Gen Intel Core i7-4770S Processor, 16 GB DDR3L, 1TB Hard Drive, With Windows® 7 Professional 64 bit	1	115265	Dr Sandip Deshmukh	Computers
Arbitrary/Function Generator: 1 Channel: 250MS/s: 20MHz sine Waveform: 14 bits: 3.5 color LCD: 2 U half rack : USB interface: without GPIB/LAN interface. Item code: AFG202I Make: Tektronix	2	147000	EEE	Equipment
AC Power Module SCR-Diode Mode IGBT Module	1 Nos 1 Nos 1Nos	56700	EEE	Equipment
Document Camera (model: L-12) with standard accessories (Microscope Adaptor Lens & 16GB SD Memory Card)	1	79578	IPC	Equipment
Power supply board 5/3.3V with 9v,2A Adapter PIC KICK Development Board w/ PIC 16f877 Character LCD I6x2 USB-TTL Converter RFID Reader 125kHz RFID Cards 125 kHz ( Plastic, clamp shell ) PIR Sensor Module Ultrasonic Ranger Sensor	10 Nos 5 Nos 5 Nos 5 Nos 5 Nos 10 Nos 5 Nos 5 Nos	24584	EEE	Equipment
Lab Viiew Robotics RIO Academic Kit Smart Camera Evaluation kit Robotics Library for KUKA-Imagin lab single set NOT concurrent NI my Rio 1900 for university purchase: Including WIFI & MSP connector Shipping & Handling Fees	1 1 1 1	659004	Mechanical Engg	Equipment
Custom Bundle (Invoice Only): NI my RIO Bundle (20 Units) with NI my DAQ (4 Units) Shipping & Handling Fee		1580153	EEE	Equipment
2UV Benchtop Ultra Violet Transilluminators from UVP Ltd., UK , P/No: 95-0449-02, model: LM-20	1	108909	Dr K Naga Mohan	equipment

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### List of Equipments Procured by Mechanical Department during the Year 2013

Item Description	Qty	Bill Amount
Milling Tool Dynamometer	1	45419.00
Metal Etching Unit	1	9686.00
Micro Meter	1	5633.00
Design Expert version 8 standalone user academic perpetual Software	1	14700.00
Vertical & horizontal condenser	1	109064.34
Heat Exchanger Service Module	1	GBP 5707.56
Tubular Heat Exchanger	1	GBP 893.35
Plate Heat Exchanger	1	GBP 1179.55
Shell and Tube Heat Exchanger	1	GBP 1445.63
Jacketed Vessel and Coil	1	GBP 2863.84
Temp. Measurement and Calibration	1	GBP 4694.43
VDSA (Bench Mounted version)	1	GBP 865.92
Heat Transfer Exp. Base Unit	1	GBP 3412.46
Linear Heat Conduction Experiment	1	GBP 2335.33
Radial Heat Conduction Experiment	1	GBP 1616.62
Extended Surface Heat Transfer	1	GBP 1580.96
Conductivity of Liquids & Glasses	1	GBP 1918.37
Cross Flow Heat Exchanger	1	GBP 11533.98
Heat Transfer through Composite Wall	1	29420.78
Heat Transfer through Lagged Pipe	1	33542.78
Heat Pipe Demonstrator	1	35603.78
Thermal Conductivity of Metal Rod	1	29420.78
Unsteady State Heat Transfer Unit	1	67549.28
Finned Tube Heat Exchanger	1	80945.78
Heat Transfer in Agitated Vessel	1	50030.78
Fluidized Bed Heat Transfer Unit with Accessories	1	69043.50
Water Bath (Thermostatic)	1	20352.00
Open Pan Evaporator	1	56677.50
Single Effect Evaporator	1	97897.50
Calandria Evaporator	1	159727.50
Flow Through Orifice and Mouth Piece	1	61513.88
Discharge Over Notches	1	61504.62

Item Description	Qty	Bill Amount
Reynolds Apparatus	1	44580.14
Electrical Analogy Apparatus	1	75442.42
Submersible Pump Test Rig	1	112278.05
Hydraulic Ram Test Rig	1	140153.66
Centrifugal Blower Test Rig (variable speed)	1	88384.67
Centrifugal Blower Test Rig (constant speed)	1	67477.96
Bernoulli's Theorem Apparatus	1	47969.00
Discharge Through Venturi and Orifice Meter	1	51061.00
Nozzle Meter Test Rig	1	40756.00
Pitot Tube set up	1	40756.00
Cavitation Apparatus	1	50734.00
Laminar Flow table	1	67549.00
Metacentric Height Apparatus	1	29420.00
Darley's Law Apparatus	1	67543.00
Study of Pressure Measurement	1	54152.00
Ben Meter Test Rig	1	46939.00
Gear Pump Test Rig(With Variable Speed Swinging )	1	89189.00
Gear Pump Test Rig(With Three Prefix Speed )	1	54152.00
Gear Pump Test Rig(With Variable Speed )	1	78893.00
Jet Pump Test Rig	1	78893.00
Orifice and Jet Velocity Apparatus	1	67543.00
Drag Coefficient for Sphere	1	60335.00
Wind Tunnel Test Rig model	1	603409.00
Centre of Pressure Apparatus	1	42250.00
Forced Vortex Apparatus	1	41220.00
Free Vortex apparatus	1	41220.00
Image Analysis Software	1	189000.00
Stereo Trinocular Microscope	1	56700.00
Electromagnetic Yoke (Set)	1	63811.00
Docile X Jr with Robo guru software (5 Nos)	1	94500.00
Docile X robot (5 Nos)	1	22312.00
Omni wheel robot loaded with sonars, IR rangefinders and camera with pan	1	182700.00

<b>Item Description</b>	<b>Qty</b>	<b>Bill Amount</b>
and tilt (6 Nos)		
Robo Arm (2 Nos)	1	207900.00
Docile X with camera and gripper attachment (2 Nos)	1	50400.00
KUKA (Simpro Software)	1	176040.00
Microscope stms-123B ( CSIR )	1	631622.00
Infrared thermal image camera model E 60 ( DST )	1	452000.00
Oscilloscope ( DST )	1	4010000.00
Syringe pump (NL-oo2) ( CSIR )	1	54350.00
Four ball tester with suitable pc (DST)	1	687000.00
Abacus 6.12 software (DST)	1	505620.00
work station (DST)	1	94830.00

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## BITS PILANI, DUBAI CAMPUS

### HIGHLIGHTS FOR THE YEAR 2013

1. On 2<sup>nd</sup> January 2013, Dr. Mehdi Tarkian, Linköping University, Sweden visited Dubai Campus and addressed the faculty and students.
2. Mr. Samarath Haribhakti, graduated in 2013 from the Dubai Campus in Electrical and Electronics Engineering secured admission in Slone School of Management, MIT, USA.
3. On 7<sup>th</sup> January 2013, the Dubai Campus conducted an interactive session with Mr. Swaraj Jammalamadaka, Technical Director, Transmission Access Planning, Midwest Independent Systems Operator, USA (Ex Student BPDC, Batch of 2009 - EEE) on Power Industry and opportunities.
4. On 20<sup>th</sup> January 2013, Prof. Vasudev Devnani, MLA and Ex-Education Minister visited Dubai Campus and had a meeting with the faculty of Dubai Campus.
5. The Faculty and Staff of Dubai Campus went for a Picnic on 24<sup>th</sup> January 2013 to Al-Ain, UAE.
6. On 1<sup>st</sup> February 2013, BITS Pilani, Dubai Campus hosted the inter-school quiz competition titled "CETA Knowledge Quest 2013" which was conducted by the College of Trivandrum Alumni (CETA), UAE and the competition was open to all high school children in UAE who follow the Indian Curriculum. Many top Schools in UAE Competed.
7. On 18<sup>th</sup> February 2013, Dr. Rajiv Gupta, Professor of Mechanical Engineering (Alumnus of IIT Delhi) gave an invited talk on "Lean Systems" to the students and faculty of BPDC. Also there was an interactive session on "Creativity" by Prof. Rajiv Gupta held on behalf of CEL (Centre for Entrepreneurial Leadership).
8. On 27<sup>th</sup> February 2013, Mr. Umit Sunar, Technical Evangelist on Windows Azure from Microsoft delivered a presentation on "Latest trends in Microsoft's cloud platform Windows Azure" to the students and faculty of Dubai Campus.
9. During 28<sup>th</sup> February -1<sup>st</sup> March 2013, BITS Pilani, Dubai Campus hosted the First BITS Alumni Gulf Meet 2013, and a warm welcome was extended to all the professors on Campus to the first gathering of BITS alumni from across the region. The Inauguration was done by the Consul General of India HE Mr. Sanjay Verma on 1<sup>st</sup> March 2013 at the BITS Pilani, Dubai Campus.
10. On 3<sup>rd</sup> March 2013, Dr. M. Selvam, Professor and Head, Department of Commerce and Financial Studies, Bharathidasan University, Tiruchirappalli gave a lecture on "Role of Security Exchanges – Personal Finance" to the students and faculty of Dubai Campus.
11. Swami Parthasarthy, a modern exponent of Vedanta and a post-graduate from the University of London was invited to the UAE by His Highness Sheikh Nahyan bin Mubarak Al Nahyan, the Minister for Higher Education and Scientific Research. Swami Parthasarthy delivered a Keynote on the topic "The Dilemma of Choice", co-organized by CEL, BITS Pilani, Dubai Campus and The Indus Entrepreneurs, Dubai Chapter on 23<sup>rd</sup> March 2013. The event witnessed an august gathering of Top Government Officials, CEO's, TiE Charter Members, and Students from DIAC and all over UAE, along with about several followers of Swami Parthasarthy from the Vedanta Academy. The event also marks the Official MoU signing between BITS and TiE Dubai in establishing a Student Chapter at BITS.
12. On 17<sup>th</sup> March 2013, 8 male and 8 female drivers from the Dubai Campus attended a "Workshop on Road Safety" at HCT- Dubai Men's Campus, Academic City.
13. On 21<sup>st</sup> March 2013, Prof. Meenakshi Raman, Head, Department of Humanities and Social Sciences, BITS Pilani, K. K. Birla Goa Campus gave an invited talk on 'Facing Job Interviews' to the students of Dubai Campus.
14. During 14-18 March 2013, the Dubai Campus Student Team IORTA (Yashaan, Shantanu, Jeffin and Numan) participated at the International Autonomous Robotics Challenge (iARC)

which was organized as part of IIT Kanpur's Techriti 2013. They performed very creditably and were one of the nine finalists out of over 23 teams that participated from many countries. This achievement was significant as the team members were all from the first year. As part of the run up to the iARC, Yashaan and his team of 8 first year students organized the UAE Leg. They also organized the Robotics Workshop on 20<sup>th</sup> February 2013 in which 43 students participated over two 3-hour sessions. Prof. R. K. Mittal and Dr. R. Udayakumar addressed the workshop and gave away the certificates.

15. During April 1-2 2013, the Sprint 2013 workshop was held at the Dubai Campus facilitated by Mr. Kris Ramachandran, Advisor to Chancellor, Manish Dave & Sachin Arya from Aditya Birla Group. Also Prof. B.N. Jain, Vice-Chancellor, BITS Pilani and the Director of Dubai Campus Prof. R. K. Mittal participated in the workshop
16. On 3<sup>rd</sup> April 2013, the Vice-Chancellor, Prof B. N. Jain addressed the faculty of Dubai Campus and shared his views on the Vision-Mission of BITS Pilani.
17. On 11<sup>th</sup> April 2013, the Vice Chancellor, Prof. Bijendra Nath Jain addressed the faculty across campuses (including Dubai and off campus) through Audio Conference Mode and share the outcome of the recently held Workshop "Mission 2015".
18. On 14<sup>th</sup> April 2013, Association of Electronics Engineers hosted a soldering competition for students of Dubai Campus to sharpen their circuit design skills and many students participated enthusiastically.
19. On 14<sup>th</sup> April 2013, All Day Mini Mart commenced its operations in the Dubai Campus. The Director, Prof. Dr. R. K. Mittal inaugurated the Minimart.
20. During 15-18 April 2013, ENGINuity 2013 - the annual inter-university Technical Festival of BITS Pilani, Dubai Campus. The event provided an opportunity for all students to exhibit their talents in various events pertaining to the categories of Quizzing, Computer Science, Adventure, Photography, Model Display, Mechanical, Electrical, Bio-Chemical and many more. The event was inaugurated by the Director Prof. Dr. R. K. Mittal.
21. During 18-20 April 2013, the students from Dubai Campus won many prizes at GULF SPDC-2013 organized by ASME SS, KUSTAR Abu Dhabi. In Old Guard Oral Presentation Competition (OGOPC): First prize - Deepan Kishore kumar; Second Prize - Adarsh Venkat Raman; In Student Design Competition (SDC): Third Prize - Akash Hathiramani, Arvind Somasundaram, Aashman Arora, Puneet Khirwar and Pranav Mohan; In Rapid Design Challenge: Second Prize - Radhika Kapoor, Deepan Kishore Kumar, Akash Hathiramani; In Bridge competition: Second Prize - Radhika Kapoor, Deepan Kishore Kumar, and Akash Hathiramani.
22. On 21<sup>st</sup> April 2013, there was an Interactive session with the Vice President of a MNC, Mr. K. Narasimhan and on 22<sup>nd</sup> April 2013, he delivered a talk on "What Corporate World Expects from a Fresh Graduate Engineer" to the students and faculty of Dubai Campus.
23. On 22<sup>nd</sup> April 2013, the Earth Day Celebrations were celebrated, with the Tree Plantation by the Director Prof. R. K. Mittal and a "Car Washing Competition", organized by the Social and Environmental Club. The fund raised was given to HelpAge India.
24. On 24<sup>th</sup> April 2013, there was a technical seminar presented by Simon Abourida, M. Eng., Development Manager for the Middle East at Opal-RT Technologies on "Real-Time Simulation and Control of Electric Power Systems, Power Electronics, and Motor Drives".
25. On 23<sup>rd</sup> April 2013, the Students of Dubai Campus won many prizes in the First UAE Undergraduate Research Competition (Step Up Shahab Competition) conducted by Abu Dhabi University: Deepan Kishore Kumar won the first prize (10,000 AED Cash) under "Natural & Health Sciences" Category: Deepan Kishore kumar and Anomitra Benerjee won the second prize (7,000 AED Cash) under "Engineering Sciences" Category and Sayed Aquib Hazari, Anirudh Valluri and Arjun Arya won the third prize (5,000 AED Cash) under "Engineering Sciences" Category: Niyati Parameswaran won the third prize (5,000 AED Cash) under "Information Technology" Category.



26. During 23-25 April 2013, an Inter college cultural festival 'JASHN 2013' was held at the Dubai Campus. The various clubs of BITS Pilani Dubai Campus organized more than 60 different events including dance, drama, music, and art events to name a few.
27. On 2<sup>nd</sup> May 2013, there was an interactive session on research opportunities at BPDC with RAKMHSU (Ras Al Khaimah Medical and Health Sciences University) team led by Dr. Nagavi, as part of RAKMHSU's MOU with the Dubai Campus. Also Dr. Padma GM Rao, Associate Dean, Professor & Chairperson, Ms. Smitha C Francis, Mr. Atiqulla Sharif, Dr. Sunil Dhaneshwar, Professor & Chairperson & Dean Examination, Ms. Jayachitra, Mr. Jinesh Nagavi, Dr. KVRNS Ramesh, Professor & Chairperson and Ms. Fasiha W Shah from RAKMHSU, Ras al Khaimah, UAE attended the meeting.
28. On 4<sup>th</sup> May 2013, Ben Anthony, Jerin Philip, Samson Varghese and Deol Adhithia, won the Best idea Prize in prototype competition for their work on "Conversion of Waste Vegetable Oil into Biodiesel" in the Engineering Students Renewable Energy Competition-2013 (ESREC-2013) at UAE University, Al Ain, UAE. About 180 students from 11 universities in UAE participated in this competition.
29. On 14<sup>th</sup> May 2013, "Know your Electives" (KYE) was organized by the Academic Counseling Cell (ACC) for the Second, Third and Final Year Students of BITS Pilani, Dubai Campus. Prof. R K Mittal, Director addressed the students and the exercise was very well received by the students.
30. During 6-10 May 2013, Hostel Week Celebration "Recharge", the annual fun, sports, cultural and an innovative event, was celebrated. This was started last year and the most awaited events for all the hostelites, full of fun, frolic, enthusiasm and a lot of team spirit. Mrs. Abha Mittal was the Chief Guest of the celebrations.
31. On 9<sup>th</sup> May 2013, 'Blood Donation Camp-2013', organized by the Social and Environmental Club of Dubai Campus and in association with Al Wasl Hospital, Dubai.
32. On 16<sup>th</sup> May 2013, the inter-university Boxing Finals of Dubai Campus was held. Also the Prize Distribution Ceremony was celebrated with Mrs. Abha Mittal as the Chief Guest.
33. On 21<sup>st</sup> May 2013, Ms. Fatma Alhashemi, Masters in Molecular Genetics and Human Resource Management, Head of Education Development Unit, Dubai Cord Blood and Research Center, Dubai Health Authority, Lathifa Hospital, Dubai, UAE gave an invited talk on "Importance of Cord Blood Stem Cells" to the students and faculty of Dubai Campus.
34. On 22<sup>nd</sup> May 2013, Dr. Mette Thomsen, Faculty at Masdar Institute and Mr. Tanmay Chaturvedi, a Graduate at Masdar Institute and an alumnus of BITS Pilani, Dubai Campus gave an invited talk on Career Choices for Chemical/ Biotech students organized by Chemical Engineering Students Association (ChESA).
35. On 24<sup>th</sup> May 2013, the 'DIROS Tea Party', a farewell party to the passing batch was organized by the Alumni Cell. Around 600 students attended the farewell where 500 passing out students gathered. A lot of fun games were arranged and a gold ring went to the lucky winner.
36. On 12<sup>th</sup> June 2013, Mr. Ram Goyal, Senior Executive Officer, Head-Middle East & Africa, Aditya Birla Sun Life Asset Management Company Limited gave an invited talk on "Wealth Management, Wealth creation through small savings, safety through Insurance to self and family members, and Investments in Real Estate across the country as per one's needs".
37. During 8-11 May 2013, Dr. Raghunathan, Assistant Professor, BITS Pilani, Pilani Campus visited the Dubai Campus and gave presentations on Entrepreneurship, Negotiation Skills- Workshop, Role of a Manager and Decision Making workshop.
38. On 8<sup>th</sup> September 2013, the "Convocation 2013" was held at BITS Pilani, Dubai Campus. The day was marked with exuberance and pride as 358 graduating students of BITS Pilani, Dubai Campus received their degrees in the presence of senior government officials of the UAE, dignitaries, parents, friends and teachers. The Chief Guest at the 'Convocation 2013' was Padma Shri Kiran Karnik, member of the Scientific Advisory Council to the Prime Minister of India. Apart from being the President of NASSCOM and spearheading the Discovery Network

in India, Mr. Karnik has also worked for Indian Space Research Organization (ISRO) for over 20 years. The Guest of Honour at the Convocation was Dr. Ayoub Kazim- Managing Director, Education Cluster, TECOM investments. Also present during the occasion were Prof. B. N. Jain, Vice Chancellor, Prof. R. K. Mittal, the Director of Dubai Campus, Prof. K. E. Raman and Prof. Dr. V. S. Rao, Director of Hyderabad Campus, Ms. Wessen Rawazik- Director of Higher Education, KHDA, Dr. Ram Buxani - President, ITL Cosmos Group, Mr. Ashok Kumar- CEO, Indian High School, Ms. Maryam Al Thani - Chairman, IEEE, UAE Section, Mr. Kris Ramachandran- Member of Board of Governors, BITS Pilani, Professors from Indian Campuses of BITS Pilani, Alumni and Industry Partners.

39. On 10<sup>th</sup> September 2013, Department of Humanities and Social Sciences had an invited talk on 'ICT Management' by Dr. Anton Ravindran, CEO and Founder of RapidStart, Singapore and President, Global Science and Technology Forum, Singapore to the faculty and students of Dubai Campus.
40. During 10-13 September 2013, Nilay Kumar Kiran Sangani, Vijayakumar B And Madijagan M's paper titled, "Social Media Security Strategy Architecture for Online Reputation Management" won the Best Paper Award at the International Conference on Innovative Technologies, IN-TECH 2013, Budapest, Hungary.
41. On 11<sup>th</sup> September 2013, Mr. Balasubramanian, Chief Placement officer, BITS Pilani visited Dubai Campus and discussed on Campus Placement Scenario and related matters.
42. On 12<sup>th</sup> September 2013, the Senior Students of Dubai Campus organized a welcome party to the freshers, through the event called "Meet & Greet". The event was started with the Batch Tree Plantation and then followed by the session on Ice Breaking.
43. Mr. Adarsh Venkatraman was selected as a finalist in the 2013 ASME Young Engineers Paper (YEP) Contest for his paper on "A Novel MEMS based Immunosensor for Ebola Virus Detection". He was invited to present his paper in the YEP session of the ASME IMECE (International Mechanical Engineering Congress) 2013, held during 5-12, November 2013 at Sandi ego, USA. Prof. S. Swaminathan was his mentor.
44. On 17<sup>th</sup> September 2013, there was an interactive session on "Collaborative Processes of Institute, Students and alumni for industry readiness", by Dr. Gopal Iyengar, Director, Kirloskar Institute of Advanced Management Studies, Karnataka, organized by CEL (Centre for Entrepreneurial Leadership) of Dubai Campus.
45. On 25<sup>th</sup> September 2013, a team of faculty and students of Dubai Campus attended the "Conference on Higher Education and Economic Growth" held at Higher Colleges of Technology (HCT), Dubai.
46. On 26<sup>th</sup> September 2013, an awareness session on TiE and Rice University Business Plan Competition - Awareness event was held at Dubai Campus. Many students attended the event enthusiastically.
47. On 1<sup>st</sup> October 2013 and 4<sup>th</sup> November 2013, the faculty and staff of Dubai Campus attended a meeting with the Dubai Police to discuss a new initiative to promote health and safety matters and drug prevention on campus.
48. On 10<sup>th</sup> October 2013, Mr. Binod Shankar, Entrepreneur, U.A.E, conducted an interactive session on "How to prepare a good Business Plan" and the event was organized by CEL (Centre for Entrepreneurial Leadership) of Dubai Campus.
49. During 23-24 October 2013, SPARKS 2013, the intra college competition was held at the Dubai Campus. The dance competition for the fest was divided into 3 categories: Western Group Dance, Eastern Group Dance and Dancing Doubles. There were 17 teams for the eastern category, 4 for western and 11 for dancing doubles.
50. On 29<sup>th</sup> October 2013, Dr. S. G. Ghosh from Jamia Millia Islamia University, New Delhi, India and a former faculty of BITS Pilani, Dubai Campus visited the Dubai campus and gave a talk on "What happens when a massive star dies" to the students and faculty of Dubai Campus.

51. On 1<sup>st</sup> November 2013, the students Omar Sultan and Anirban Musib won the first place and Rahul Philip and Jonathan Justin won the second place in the inter college quiz held at Park Regis Hotel, Dubai.
52. On 7<sup>th</sup> November 2013, Ethnic Day 2013 was celebrated in commemoration with the Foundation Day of BITS Pilani, Dubai Campus.
53. On 11<sup>th</sup> November 2013, the Arts Club of Dubai Campus organized the arts exhibition “Artex 2013” and many students of Dubai Campus exhibited their talents through their paintings and arts work.
54. On 13<sup>th</sup> November 2013, the Mechanical Engineering Association organised a Guest lecture on “Scaling and Homogenization in Spatially Random Composites” by Dr. Shivakumar Ranganathan, Assistant Professor, Mechanical Engineering, American University of Sharjah, UAE.
55. During 24-28 November 2013, the 11th BITS Sports Festival (BSF) at BITS Pilani, Dubai Campus was inaugurated by Mr. Rajesh Ramadurai, Vice President-MENA. He is an alumnus and a fit sportsperson himself. Mr. Madan Lal (Former Indian Cricketer and Former Indian Cricket Team Coach) was the Chief Guest for the Prize distribution ceremony. The Director of BITS Pilani, Dubai Campus, Prof. Dr. R. K. Mittal congratulated the students on their active participation and achievements. Mr. Madan Lal handed over the trophies and medals to all the winners. The athletics overall Championship and BSF 2013 Overall championship trophy were won BITS Pilani, Dubai Campus.
56. On 18th of November 2013, a Blood Donation Camp was organized by the Social and Environmental Club in association with Al Wasl Hospital, Dubai.
57. On 17<sup>th</sup> November 2013, Mr. Surendra Bhargav, BITS Alumnus (1968-1973) gave a talk on “Foundation for Excellence Scholarship Program” to the students and faculty of Dubai Campus.
58. (i) Dr. Eesa Bastaki was appointed as an Adjunct Professor and he is the first UAE National among the BPDC Faculty. Prof. Dr. Eesa Mohammed Bastaki, President, University of Dubai was appointed Adjunct Professor. He was the CEO of the ICT Fund and actively led the effort to create an eco-system in the UAE ICT industry, by encouraging entrepreneurship, funding R&D projects and University scholarships and implementing ICT initiatives at the school level. His research interests are Multiple Access Communications, Coding and Synchronization. He was the Board Member, UQAIB, KHDA, Dubai and Honorary Chairman of IEEE UAE Section. He also was the Keynote Speaker of ICCTAM 2012. In 2009, he received UAE’s highest award “The Emirates Awards for Science, Arts and Literature” in sciences.
- (ii) Prof. Dr. Anton J Ravindran was appointed as an Adjunct faculty and he is a Singaporean. Anton is currently the President, Global Science and Technology Forum (GSTF), CEO and founder of RAPIDSTART and Asia Pacific Technology Forum. He is also the Co-Founder and former Group CEO of Genovate Solutions, the largest SAP training partner in Asia Pacific with operations to 6 countries and 17 cities in Asia Pacific. He was also the former CEO and founder of Knowledge Window Asia Pacific (KWAP). He is also Advisor and director for Genomtri Pvt Ltd. As a technoprenuer, he won the top Singapore entrepreneur award in FY 2005 & FY 2006 (EYA -An ASME & Rotary Award) - only one to have won this award in two consecutive years.
59. During 3-5 December 2013, ENGINUITY, the annual techno-managerial and innovation festival and TECHNOFEST, an annual intra university technical festival were held at the BITS Pilani, Dubai Campus. The Director Prof. R.K. Mittal, was the chief guest for the function.
60. On 3-5 December 2013, the Director Prof. Dr. R K Mittal inaugurated the Book Fair 2013 at Dubai Campus.
61. On 28<sup>th</sup> November 2013, Mr. Faisal Farooqui, Founder and CEO of MouthShut.com. conducted an interactive session on “Entrepreneurship as a career option for young men and women” on behalf of CEL (Centre for Entrepreneurial Leadership).

62. On 7<sup>th</sup> December 2013, the Dubai Campus students Harsh Hirani, Vineet Parekh, Rushabh Gosar, Zaidali Khoja and Sagar walia won the TiE Dubai International Business Plan Competition for their work titled "Business paln-Zynk".
63. BITS Pilani, Dubai Campus participated in the Emirates Environmental Group (EEG) Recycling Collection Campaign 2013, contributing totally to 15,376 kg of paper and 15 kg of aluminium cans. EEG honoured Dubai Campus with an invitation to participate in EEG's prestigious Tree Planting Ceremony and plant four trees in Al Jazeera Landfill - Ras Al Khaimah under our institute's name.
64. On 23<sup>rd</sup> December 2013, Prof. Ashraf Rizvi, Director of Jaipuria Institute of Management Studies, New Delhi conducted a workshop on "Improving Classroom Effectiveness" to the faculty of Dubai Campus.
65. On 15 December 2013, a Talk by Mr. Sameer Sortur, Director of Revenue Growth and Operations@Innovator 360 Accelerator on "Entrepreneurship", was organized by the CEL (Centre for Entrepreneurial Leadership).
66. During 25-29 December 2013, Mr. S. N. Zindal, Chief R&D Officer (CRDO), BITS Pilani visited UAE with a view to suggest measures to boost R&D activities at BITS Pilani, Dubai Campus (BPDC) & explore funding possibilities to BPDC. He had interactions with Dr. Sunil Kumar, Dean Faculty of Engg., NYAD, Abu Dhabi, CEO/their designates at 3 Practice School Stations: ESRI Sharjah, Elfit Arabia Ajman and Energy Automation, Dubai in addition to his interactions with the BITS Pilani, Dubai Campus Director, Research Working Group, Faculty, Research Scholars and Students.
67. On 18<sup>th</sup> December 2013, Prof. A. K. Mittal, IIT, Kanpur conducted an interactive session on "Introduction to IPR" and Prof. B Chandra, IIT, Delhi held an interactive session on "Data Mining and Its Applications" with the students of Dubai Campus.
68. On 19<sup>th</sup> December 2013, Prof. C. B. Gupta of Department of Mathematics, Pilani Campus had an Interaction with the Department of Mathematics of Dubai Campus.

#### B4.1 SENIOR OFFICERS

##### DIRECTOR

Prof. R K Mittal

1. Prof. T G Thomas, Dean, Academics and Registration
2. Prof. G Vijaya, Dean, Research and Consultancy
3. Prof. Priti Bajpayee, Dean, Student Welfare
4. Prof. D J Shariff, Dean, Instructions
5. Dr. K Kumar, Registrar

(Details are given in Annexure B4-1)

#### B4.2 ADMISSIONS

Admissions were made twice during the year 2013, in January 2013 for the second semester 2012-2013 and in August 2013 for the first semester 2013-2014 (Details are given in Annexure B4-2). The admission summary is given below:

	Integrated First Degree Programmes	Higher Degree Programmes	Doctoral Programmes (Ph.D.)	Total
Second Semester 2012-2013	1 (1)	42 (13)	2 (1)	45 (15)
First Semester 2013-2014	378 (114)	-	7 (6)	385 (120)

Number of female students is given in brackets.

### B4.3 DUAL DEGREES AND TRANSFER

(a) *Dual Degree*

During the academic year 2013-2014, 2 students were permitted to work concurrently for two first degrees under Dual degree Scheme. (Details are given in Annexure B4-3)

(b) *Transfer*

During the academic year 2013-2014, 8 students were permitted to transfer within First degree. (Details are given in Annexure B4-3)

### B4.4 ACADEMIC CALENDAR

During the Calendar year 2013, the second semester 2012-2013 started on 03.02.2013 and ended on 10.06.2013. The first semester 2013-2014 started on 02.09.2013 and will end on 09.01.2014. The second semester 2012-2013 PS II started on 03.02.2013 and ended on 15.07.2013. The Summer Term 2012-13 started on 11.06.2013 and ended on 07.08.2013. Also PS I started on 11.06.2013 and ended on 07.08.2013. The first semester 2012-2013 PS II started on 04.08.2013 and will end on 09.01.2014.

	Starting Date	Ending Date	Number of Instruction days (excluding examination days)
Second Semester 2012-2013	03/02/2013	10/06/2013	92
First Semester 2013-2014	02/09/2013	09/01/2014	87
Summer term 2012-2013	11/06/2013	07/08/2013	42

### B4.5 REGISTRATION OF STUDENTS

The registration for the second semester 2012-13 was held on 3rd February 2013 and that of the first semester 2013-14 was held on 2nd September 2013. In on-campus programmes, 1516 (480) students were registered in the first semester 2013-2014. Details of registration for the first semester 2013-2014 are given in Annexure B4-4.

	Number of students registered
Second Semester 2012- 2013	1457 (466)
First Semester 2013 - 2014	1516 (480)
Summer Term 2012 - 2013	427 (126)

### B4.6 ACADEMIC COUNSELING BOARD (ACB)

During the year 2013, the Academic Counseling Board estimated the extent to which students under its purview fell short of the minimum academic performance, drew up a time-frame within which afflictions were to be removed, determined the package of courses for their registration in each semester and laid down the necessary stipulations for achieving intermediate targets. It further monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of On-campus students under its purview during the year is given below:

	I Semester 2012- 2013	II Semester 2012- 2013
1. Total number of students under the purview of ACB at the beginning of the semester	108	108
2. No. of students declared out of its purview at the end of the semester	41	21

	I Semester 2012- 2013	II Semester 2012- 2013
3. No. of students who left the institute during the semester	7	3
4. No. of students who came under the purview of ACB at the end of the semester	48	8
5. Total No. of students under the purview of ACB during the next semester	108	92

#### B4.6.1 Academic Counseling Cell (ACC)

Academic Counseling Cell (ACC) consisting of faculty and Student Counselors facilitates counseling services for students' who need counseling with prior appointment with a counselor. Counseling services are confidential services to the students. Also if necessary, a Professional Counselor (PC) is arranged.

#### B4.7 AWARD OF DEGREES AND MEDALS

##### B4.7.1 Award of Degrees

During the year 2013, 360 degrees were awarded as given below: Statistical details of these degrees are given in Annexure B4-5, B4-6 and B4-7.

	Number of Degrees Awarded
72 <sup>nd</sup> Award (vide Board of Governors meeting -20 <sup>th</sup> March 2013)	53 (10)
73 <sup>rd</sup> Award (vide Board of Governors meeting-19 <sup>th</sup> July 2013)	310 (103)
<b>Total</b>	<b>363 (113)</b>

74 <sup>th</sup> Award (subject to approval of Board of Governors in the next meeting)	48 (09)
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##### B4. 7.2 Award of Medals

###### (i) Institute Medals for Academic Year 2012-2013

List of students for award of medals from amongst the students graduated at the end of first semester, second semester and summer term 2012- 2013.

S. No	ID. No.	NAME	SEX	CGPA OBTAINED	POSITION OBTAINED	TYPE OF MEDAL TO BE AWARDED
<b>Integrated First Degree Programmes (No. of students:330)</b>						
1.	2009A7PS079U	DEEPTI S PRAKASH	F	10.00	FIRST	GOLD
2.	2009AAPS060U	ASMA FATHIMA	F	9.93	SECOND	SILVER
3	2009A4PS278U	SIDDHANT MAHESHWARI	M	9.85	THIRD	BRONZE

**(ii) Director's Medals for the Best All Round Achievement**

In addition to the Institute Medals, at Dubai Campus Director's medals are awarded to one male and one female student for the best all-round achievement, in every graduating batch. For the 2012 graduating batch, the Director's medals were awarded to the following students:

S. No.	ID. No.	NAME	SEX
1.	2009A3TS027U	ALIAKBAR ESKI	M
2.	2009A7TS197U	NIYATI PARAMESWARAN	F

**(iii) DIAC Award for the Best Academic Performance**

The "DIAC Award for the Best Academic Performance" for the universities located in DIAC (Dubai International Academic City) was given to the following students for the year 2013:

S. No.	ID. No.	NAME	SEX	CGPA	DIVISION
1.	2009A7PS079U	DEEPTI S PRAKASH	F	10.00	DISTINCTION
2.	2010H112003U	APPENDAI RAJAN P	M	9.86	DISTINCTION

**B4.8 CAMPUS INTERVIEWS AND PLACEMENT**

Efforts were made this year to have more and more industries visit the campus for placement interviews. Despite economic slowdown in Dubai, 58 organisations conducted campus interview and made offers to students (Details are given in Annexure B4-8).

Number of companies which conducted campus interviews	58
No. of interviews	979
No. of offers made	104

**Employed / Higher Studies of Graduates during the Year 2013**

Programme	Number Graduated	Employed/ Higher Studies	Unemployed as on October 2012	Those neither informed nor sought help in placement
<b>On-Campus Programme</b>				
<b>B.E. (Hons.)</b>				
Biotechnology	9	5	2	2
Chemical	13	9	1	3
Computer Science	62	56	3	3
Electronics & Communication	88	63	15	10
Electrical & Electronics	45	20	12	13
Electronics & Instrumentation	13	9	1	3
Mechanical	86	43	14	29
<b>Total</b>	<b>316</b>	<b>205</b>	<b>48</b>	<b>63</b>

**B4.9 COURSES OFFERED**

The number of courses offered during the year 2013 is as follows:

	Number of courses offered
Second Semester 2012- 2013	163
First Semester 2013 – 2014	191
Summer Term 2012 - 2013	32

**B4.9.1 Project-oriented Courses**

During this year, many students worked on time-bound projects of various types. The information about the projects done and the names of the students who worked on the projects and the names of the instructors are given in Annexure B4-9. A statistical summary is given below:

Sl. No.	Course No.	Course Title	No. of Students	
			II Sem. 2012-13	I Sem. 2013-14
1	BITS C313	LAB ORIENTED PROJECTS	30	31
2	BITS C314	LAB ORIENTED PROJECTS	0	2
3	BITS C323	STUDY ORIENTED PROJECT	50	47
4	BITS C324	STUDY ORIENTED PROJECT	2	0
5	BITS C331	COMPUTER PROJECTS	82	71
6	BITS C335	COMPUTER PROJECTS	1	6
7	CHE C491	SPECIAL PROJECTS	0	1
8	EEE C491	SPECIAL PROJECTS	2	2
9	ME C491	SPECIAL PROJECTS	6	7
10	CS C491	SPECIAL PROJECTS	2	6
11	INSTR C491	SPECIAL PROJECTS	0	2
12	BIOT C491	SPECIAL PROJECTS	0	2
13	ECE C491	SPECIAL PROJECTS	1	5
14	CHE F266	STUDY PROJECT	0	2
15	EEE F266	STUDY PROJECT	2	3
16	ME F266	STUDY PROJECT	0	13
17	CS F266	STUDY PROJECT	5	7
18	BIOT F266	STUDY PROJECT	0	1
19	ECE F266	STUDY PROJECT	0	9
20	CS F366	LABORATORY PROJECT	0	1
21	CS F376	DESIGN PROJECT	0	3
<b>TOTAL</b>			<b>183</b>	<b>221</b>



#### **B4.9.2 New courses**

During the year, 80 new courses were offered. (Details are given in the Annexure B4-22)

### **B4.10 INSTITUTIONAL ACTIVITIES**

#### **B4.10.1 Convocation 2013**

The "Convocation 2013" was held at BITS Pilani, Dubai Campus with the Chief Guest Padma Shri Kiran Karnik, Member of the Scientific Advisory Council to Prime Minister of India and the National Innovation Council and the Former President of NASSCOM, India on Sunday, 8<sup>th</sup> September 2013 for its tenth batch of graduating students. Prof. B N Jain, Vice Chancellor, Prof. V S Rao, Director, Hyderabad Campus, Prof. K E Raman, Prof. M. M. S. Anand, Registrar, Dr. Ayoub Kazim, Managing Director of the Education Cluster of TECOM Investments, and many others graced the occasion.

Mr. Karnik in his Convocation address stated, "New Technology, particularly in the sphere of information and communication technologies (ICT), has led to the "end of geography" and the "death of distance". This, in turn, has been the driving factor of globalization: in goods, services, ideas and culture. Global supply chains for goods and services - often referred to as off-shoring, sometimes combined with out-sourcing-led to increasing movement of people too. Within organizations, globalization has meant cross-border teams, working collaboratively on a common problem; it has meant a globalization of knowledge and a multi-national workforce".

In his message, the Chancellor Dr. Kumar Mangalam Birla, congratulated the graduating students and stated that, "This is indeed a milestone as you complete the first important leg of your journey through life. Today, you stand on the threshold of yet another phase in this journey; a voyage, which will be marked by challenges and opportunities, adventures and at times misadventures, and triumphs. I am sure that as the transition in your learning from academics to the workplace begins, you will handle every situation in a responsible way. That whatever you have learnt at BITS will give you to begin with, a firm foothold in the real world, beyond this campus."

Guest of Honor at the Convocation, Dr. Ayoub Kazim, Managing Director of the Education Cluster of TECOM Investments said that the Indian institution is doing a good work by supporting the regional human capital.

Bidding farewell to the students, Prof. Bijendra Nath Jain, Vice Chancellor, BITS Pilani stated that, "To all those graduating today, I hope you were able to get the most of what BITS Pilani had to offer, and that you will use your knowledge and experience fruitfully to serve the people of India and UAE and those elsewhere. I wish you all the very best in your lives, both professional and personal. Do remain connected with your alma mater and visit us whenever you yearn to re-live some of your fine moments at Dubai campus".

Speaking at the occasion, Prof. R. K. Mittal, Director, BITS Pilani, Dubai Campus mentioned that, "BITS Pilani, Dubai Campus, the only international branch campus of BITS Pilani, India, currently offers 12 degree programmes at first degree and higher degree levels apart from the doctoral programmes in engineering and allied areas, with a total enrollment of more than 1500 students. From this campus, 2685 students have graduated so far, out of which more than 30% were girls. "Congratulating the graduating students, he also stated that the students are encouraged to venture in entrepreneurship and to become employers rather than the employees. He also shared several accolades the Dubai Campus of BITS has won through its students and faculty during 2012-13 such as the first "United Arab Emirates Undergraduate Students Research Competition (Step up Shahab) the prizes amount to AED 34000/- , Best Idea Prize at ESREC 2013, THE BIG START 2013, GULF SPDC-2013GIC Quiz BASH 13, etc. He also stated that the students and faculty of Dubai campus contributed 75 peer reviewed research articles-14 published in international journals and 61 presented in international conferences of repute.

The Degrees were conferred on 28 higher degree graduates in M.E. (Software Systems, Microelectronics, Design Engineering) and M.B.A. and 330 Graduates who graduated in Chemical Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Computer Science, Electronics and Instrumentation Engineering, Electronics and Communication Engineering and Biotechnology. Many VVIPs, Guests, Parents of graduating students, faculty and staff attended the Convocation, apart from the graduating students.

#### **B4.10.2 Transfer of Ownership**

The process of the Transfer of ownership of BPDC from ETA-NET ETA LLC to BITS Pilani FZ-LLC was completed on February 14, 2013. BITS Pilani, Dubai Campus which functions as the operating entity of BITS Pilani FZ-LLC are defacto one single unit. It is an important step in consolidating the four campuses of BITS Pilani under one umbrella.

### **B4.10.3 Adjunct Faculty**

On November 18, 2013, the Dubai Campus of BITS appointed on adjunct positions two eminent personalities as below:

- a. Prof. Dr. Eesa Mohammed Bastaki was appointed as Adjunct Professor. He is the President, University of Dubai and is the first UAE National among the BPDC Faculty. He was the CEO of the ICT Fund, UAE; actively led the effort to create an eco-system in the UAE ICT industry, by encouraging entrepreneurship, funding R&D projects and University scholarships and implementing ICT initiatives at the school level. He is also a Board Member of UQAIB, KHDA, Dubai. Currently he is the Honorary Chairman of IEEE UAE Section. He is recipient of UAE's highest award namely: "The Emirates Awards for Science, Arts and Literature" in sciences in the year 2009.F
- b. Prof. Dr. Anton J Ravindran was appointed as Adjunct Faculty. He is a Singaporean and the CEO & Founder, Rapidstart Pvt. Ltd, Singapore and currently the President, Global Science and Technology Forum (GSTF); CEO and founder of Rapidstart and Asia Pacific Technology Forum. He is also the Co-Founder and former Group CEO of Genovate Solutions, the largest SAP training partner in Asia Pacific with operations to 6 countries and 17 cities in Asia Pacific. The former CEO and founder of Knowledge Window Asia Pacific (KWAP) is the Advisor and Director for Genomtri Pvt Ltd. As technoprenuer, he won the top Singapore entrepreneur award in FY 2005 & FY 2006 (EYA -An ASME & Rotary Award) - the only one to have won this award in two consecutive years.

### **B4.10.4 BITS Alumni Gulf Meet 2013**

BPDC hosted BITS Alumni Gulf Meet 2013 during February 28 - March 1, 2013 with its main tracks as: Innovative Leadership, Entrepreneurship and Technology and Speed Networking and a short Cultural. The BITSAA Gulf Meet curtain raiser was followed by Gala Evening on 28<sup>th</sup> February 2013. The panel discussions were on "Entrepreneurship", led by Mr. Ashok Galgotia, "Technology" led by Mr. Manojeeet Chowdhary and "Innovative Leadership" led by Mr. Kanak Mandrecha. Mr. M P Sharma, CEO, Techmart, UAE presented \$ 50000/- to BPDC in connection with BITS Connect 2.0.

### **B4.10.5 Sprint 2013 Workshop**

The "Sprint 2013" workshop was held at the Dubai Campus during April 1-2, 2013 facilitated by Mr. Kris Ramachandran, Advisor to Chancellor, Manish Dave & Sachin Arya from Aditya Birla Group. Also Prof. B.N. Jain, Vice-Chancellor, BITS Pilani and the Director of Dubai Campus Prof. R. K. Mittal participated in the workshop. Faculty and Alumni of Dubai campus participated in the workshop and through the workshop; many imperatives and action points were identified about the Dubai Campus; the main focus of the workshop was on the areas of increasing student intake, making hostel an attractive place for students and develops SWOT for Dubai Campus.

### **B4.10.6 Workshop on Improving Classroom Effectiveness**

Prof. Ashraf Rizvi, Director of Jaipuria Institute of Management Studies, New Delhi conducted a workshop on "Improving Classroom Effectiveness" on 23<sup>rd</sup> December 2013 to the faculty of Dubai Campus. His presentation was well received by the faculty and an interactive session was followed after his presentation.

### **B4.10.7 On-line Admissions & Admissions' Counseling**

Dubai Campus for the first time since its existence successfully conducted On-line Admissions & Admissions' Counseling exercise simultaneously at five different Indian locations: Chandigarh, Chennai, Delhi, Hyderabad and Mumbai on a single day, July 14, 2013. More than 200 aspirant students from across India registered for Counseling and admissions. 16 of the eligible students were offered spot admissions.

### **B4.10.8 MoU with TiE, Dubai**

The Indus Entrepreneurs (TiE) is a global, not-for-profit organization chartered by individuals in the Silicon Valley in the year 1992. TiE Dubai is the Middle East chapter of TiE and was established in Dubai in 2003. TiE Dubai has entered into a Memorandum of Understanding with Dubai International Academic City (DIAC) to launch a TiE Students' Chapter (TSC). On March 23<sup>rd</sup> 2013, TiE Dubai Chapter and BITS Pilani, Dubai Campus entered into a Memorandum of Understanding to open a TiE Student's Chapter, in association with DIAC hosted by BPDC, to promote Entrepreneurship to the next generation of entrepreneurs. Under this MoU, both BITS and TiE Dubai Chapter have agreed to conduct TiE Student chapter events, including but not limited to invited guest lectures by eminent speakers, entrepreneurs and business leaders that would benefit all students from UAE universities. The signing of this MoU marks the commitment of both BITS and TiE in fostering the spirit of entrepreneurship, innovation and leadership. To mark the commencement of this joint collaboration, TiE Dubai and BITS had organised a talk by Swami Parthasarthy on the theme "The Dilemma of Choice" with more than 350 people gracing the occasion including TiE Charter Members, CEO's, top Government Officials and BITS Family – students, professors and everyone.

### B4.11 FACULTY PROFILE

There were 84 faculty in BITS Pilani, Dubai Campus at the start of the Academic Year 2013-2014. Out of these, 61 are Lecturer and above and 23 are Technical Assistant and lab instructors. Out of these 61 teaching faculty, 52 are Ph.D. holders with several years of teaching experience and 9 have appropriate Master's Degrees with several years of teaching experience. There are 1 Sr. Professor, 9 Professors, 21 Associate Professors, 20 Assistant Professors, 6 Senior Lecturers and 4 Lecturers. Four of these faculty members are on deputation from BITS Pilani. One Adjunct Professor and an Adjunct faculty were appointed during 2013. There is a constant endeavor to add to the strength of the faculty appropriate to the requirements.

During the year, the teacher – student ratio was 1:18.04. The faculty has been intensely involved in all the facets of BITS, namely, teaching, research, Practice School, educational administration and institutional development.

#### Some Faculty Statistics

(i)	Percentage of teaching staff (Lecturer & above) possessing Ph. D / made good progress towards Ph.D.	95
(ii)	Percentage of teaching staff working for Ph.D.	15
(iii)	Percentage of teaching staff who participated in Practice School Programme in the year	85

#### Faculty Development Programme

##### Technical contributions from faculty and students

There were a total of 73 contributions which include 16 in various international Journals and 57 in various Conferences. The complete list of research contributions made by the faculty, staff and students is given in Annexures B4-11 and B4-12.

##### Some Note-worthy Achievements

1. Dr. M. V. N. Sankaram, Associate Professor, Mechanical Engineering, not only continued to be a member of the steering committee successively for the past several years to the prestigious Annual UAE Renewable Energy Conference: ESREC-2013 but also has been honored, in the month of December 2013, to be a prestigious member of ASME's District-J operating Board which includes members, apart from UAE Universities, also from the Universities & Industries in USA, Lebanon, South Africa, Saudi Arabia, Oman and Nigeria.
2. Dr. Gokhale Trupti Swarup delivered an Invited Talk on the topic "Current Challenges in Interdisciplinary Microbiology" during the Golden Jubilee Symposium held on 5th January 2013 at Wilson College, Mumbai, India upon receiving an Invitation from its organizers.
3. Dr. S. Karthiyayini was the co-chair for the Technical Session Th42 - Physical Acoustics I held on May 2, 2013 at the International Congress on Ultrasonics (ICU 2013) held in Singapore during May 2-5, 2013 on an invite to the same from Dr. Boo Cheong KHOO, Scientific Chairman, ICU 2013.
4. To appraise themselves about Dubai Campus of BITS, interact with faculty, staff & students and/or collaborate with the Institute, the following were among the notable visitors to BITS Pilani, Dubai Campus (pl. see annexure B4.10 for list of those who not only visited but also delivered invited talks at Dubai Campus):
  - a. January 2, 2013 - Dr. Mehdi Tarkian from Linköping University, Sweden
  - b. January 20, 2013 - Prof. Vasudev Devnani, MLA and Ex-Education Minister, Rajasthan, India
  - c. March 2, 2013 - Dr. Senka Vidovic, Assistant Professor, Faculty of Technology, Department of Biotechnology and Pharmaceutical Engineering, Bul. Cara Lazara
  - d. March 30-April 1, 2013 - Mr. Rajiv Arora, an alumnus of BITS, Pilani
  - e. 17<sup>th</sup> September 2013 - Dr. Gopal Iyengar, Director, Kirloskar Institute of Advanced Management Studies, Karnataka, India
5. A contribution titled "Potentials of Adult Stem Cells in Regenerative Medicine and Tissue engineering" of Ms. Salma Sheriff's, Lab Instructor in Biotechnology Department at Dubai Campus was adjudged

as the best oral presentation under the Track B: "Stem Cell Therapies - Potential Applications" at the "International Stem Cell Summit- 2013" (ISCS - 2013) held during 4-6 January, 2013 at the Lifeline Multispecialty Hospital, Chennai, India with Dr. D. J. Shariff as her mentor. She also received a cash prize of 15000 INR as an award for the same.

6. A record high ever of a total of 11 teams from the IEEE Student Branch at BITS, Pilani, Dubai Campus participated in the 2013 Edition of IEEE XTREME: a 24 hour programming worldwide Programming Challenge held from 4 AM on 26<sup>th</sup> October 2013 till 4 AM on 27<sup>th</sup> October 2013 by the IEEE, the world's largest professional body. While six out of 11 BPDC teams achieved world ranks less than top 1000; its top 3 teams were also among the 3 highest ranked teams within UAE with ranks: ASCII Rangers-133, TeamHeisenberg-200, and AmAyRi-294. Other 3 team rankings are: Skynet-440, CrayTitans-610, BugsInTheSystem-880.
7. A contribution "The Story Wave Project" of the BPDC team Innospel's comprising of Nambiar Shruti Surendrakumar, Sai Harish Arigeli, Anu Singhal, Pratik Sen was selected among top eight teams who contributed innovative ideas as part the Microsoft Imagine Cup- the biggest competition, with the largest cash prizes (up to 300,000 USD) in Russia during 2013. Others who got shortlisted are teams from AUS, Abu Dhabi Univ., UoS, UAEU, UOWD, Ajman Univ. and AEMA Creations, Chouifat Dubai). All these teams competed for local finals.
8. In the first ever UAE Undergraduate Research Competition: STEP UP SHAHAB conducted by Abu Dhabi University on April 23, 2013 the following BPDC teams secured the positions indicated & won prizes in a total of 4 categories as in table below:

Student(s)	Mentor	Research Topic	Category	Position secured / Prize won
Deepan Kishore Kumar	Dr. S. Swaminathan	MEMS Sensor for characterizing Nystagmus	Natural & Health Sciences	1 <sup>st</sup> / 10,000 AED
Deepan Kishore Kumar; Anomitra Banerjee	Dr. S. Swaminathan	MEMS device for treating BPPV	Engineering Sciences	2 <sup>nd</sup> / 7,000 AED
Sayed Aquib Hazari, Anirudh Valluri, Arjun Arya	Dr. M. V. N. Sankaram		Engineering Sciences	3 <sup>rd</sup> / 5,000 AED
Niyati Parameswaran	Dr. M. Madiajagan		Information Technology	3 <sup>rd</sup> / 5,000 AED

9. On March 28, 2013 the world's largest professional body "the IEEE", upon a thorough review posted all the contents of the proceedings of the BPDC's first ever International Conference on Cloud computing Technologies, Applications and Management 2012 (ICCCTAM 2012) held during December 8-10, 2012 to its world reputed online Digital Library: the IEEE XPLORE, which is considered by the researchers in the area around the globe as the most valued & reputed publications' site.
10. On 1<sup>st</sup> February 2013, BITS Pilani, Dubai Campus hosted the inter-school quiz competition titled "CETA Knowledge Quest 2013" which was conducted by the College of Trivandrum Alumni (CETA), UAE and the competition was open to all high school children in UAE who follow the Indian Curriculum. Many top Schools in UAE Competed.
11. Mr. Anomitra Banerjee, Secretary of the BPDC ASME Student Chapter received a stipend of USD 2000 for attending & presenting his contribution entitled "Groundwater remediation through Nanoscale Iron Particles" at the ASME Conference held during September 8-12, 2013 at Brussels, Belgium. This prestigious award was among the 17 contributions chosen across the globe and Mr. Anomitra Banerjee was the only Baccalaureate student while pursuing his first year of the First Degree at the Dubai Campus of BITS, who secured this accolade while all the other contributions chosen for the award were from the contributions made by graduate students and research scholars.
12. The contribution by Mr. Nilay Kumar Kiran Sangani, titled "Social Media Security Strategy Architecture for Online Reputation Management", which was presented at the International Conference Innovative Technologies 2013 (IN-TECH 2013) held during September 10-13, 2013 at Budapest, Hungary got

adjudged as the Best Paper in the category “Computer Science”. Also the contribution was considered to be one among the 9 papers awarded the best for Science and Technology Transfer from among all the presented papers in all the conference theme areas.

13. Cloud Computing Encyclopedia published by Wiley with its Editors: San Murugesan, BRITE Professional Services and University of Western Sydney, Australia; Irena Bojanova, University of Maryland University College, USA invited Dr. Anand Kumar and his team of 2 M.E. Software Systems students Mr. Ankur and Mr. Tejas to submit 3 full chapters on based on a review of 3 extended abstracts submitted in the year 2013 on the topics namely: “Mobile Clouds”, “Cloud Standards” and “Research topics in Clouds”.
14. On March 23 2013, a Memorandum of Understanding (MoU) for a formal collaboration between Center for Entrepreneurial Leadership (CEL) and the TiE Dubai Chapter was signed with BPDC hosting the TiE Dubai Students’ Chapter in association with Dubai International Academic City (DIAC) with an aim to promote entrepreneurship among the students in the DIAC institutions.
15. In the Gulf SPDC-2013 organized by the ASME Students’ Chapter at KUSTAR Abu Dhabi during 18 – 20 April, 2013, the BPDC ASME students’ chapter won several accolades as below:

<b>Competition Name @ Gulf SPDC 2013</b>	<b>BPDC Secured Position</b>	<b>BPDC Student name(s)</b>
Old Guard Oral	First	Deepan Kishore kumar
Presentation Competition	Second	Adarsh Venkat Raman
Student Design Competition	Third	Akash Hathiramani Arvind Somasundaram Aashman Arora Puneet Khirwar Pranav Mohan
Rapid Design challenge	Second	Radhika Kapoor Deepan Kishore Kumar Akash Hathiramani
Bridge competition	Second	Radhika Kapoor Deepan Kishore Kumar Akash Hathiramani

16. The following Electronic Design Automation (EDA) Software Tools were successfully installed and made available to faculty and students via the Central Server of BPDC.
  - a. Synopsys VLSI Design Tools
  - b. Mentor Graphics Tools

First-Degree, Higher-Degree and Ph.D. students and faculty used the above tools online documentation support for their Projects, Thesis and Dissertation courses.
17. Jonathan Samuel Justin (2010A4PS104U) and Rahul Philip (2010A7PS206U) secured second position and won iPhone 5, each having participated in GIC Quiz BASH 2013 organized by Graphic International Center, Dubai to celebrate their 30 years in UAE during which 40 teams, including those some teams from outside UAE, participated.
18. During ESREC 2013 organized by UAE University, Al Ain, a prestigious UAE annual renewable energy conference held on 4 May, 2013, the project titled “Conversion of waste vegetable oil into Biodiesel” by Ben Anthony, Jerin Philip, Samson Varghese and Deol Adhithia won the Best idea prize in prototype competition. They were one among the 9 shortlisted teams in the final out of 26 teams

participated under Prototype competition. A total of 180 students competed in this competition from among 11 universities within UAE.

19. For the first time since the existence, during the I Semester 2013-14, 4 students underwent FD Thesis and HD Dissertations at off-campus locations outside Dubai, UAE. The locations were: 1. MIT/Harvard Bio-Acoustics MEMS in Medicine lab 2. Dept. of Mech. Engg., I.I.T Mumbai and 3. Dept. of Pathology, USUHS USA. Two First Degree Students Mr. Deepan Kishor Kumar, Mr. Adarsh Venkatraman pursued FD thesis at location no.1 under the supervision of Dr. Swaminathan; Ms. Swetha Menon pursued the FD Thesis at location no.2 under the supervision of Dr. Perisamy; and the Higher Degree student Ms. Reenu Ann Joy pursued HD Dissertation at location no.3 under the supervision of Dr. Neeru Sood.
20. The preparations & plannings commenced during I Semester 2013-14 by the Department of Biotechnology to organize 4th Annual International Conference on Advances In Biotechnology (BIOTECH 2014) at BITS Pilani Dubai Campus in March 2014 jointly with Global Science and Technology Forum (GSTF), Singapore.

The details are given in B4.10 and B4.11.

#### **B4.12 SPECIAL LECTURES, INVITED LECTURES**

Number of eminent scholars and distinguished alumni visited the Campus and delivered lectures. Details are given in Annexure B4-10.

#### **B4.13 INTERNATIONAL / NATIONAL CONFERENCES / WORKSHOPS**

##### **B4.13.1 Workshops Conducted:**

1. A Hands-On workshop on programming and interfacing the Arduino Microcontroller was held by the Association of Electronics Engineers in March 2013 which was well appreciated by the student community.
2. A workshop on the Electronic Design Automation software PSPICE was conducted by the AEE on 15th May 2013, to encourage the students to use the tool.

##### **B4.13.2 Invited Lectures/Workshop/Talks by Faculty:**

The following faculty participated in Invited Lectures / Workshop /Talks / Panel Discussions / Chairing the session in International Conferences held during the year:

1. Dr. Trupti Gokhale delivered a talk on "Exploring the Environment: A Microbiological Approach" during the National symposium organized by Wilson College, Mumbai, India on 5 January 2013.
2. Dr. S. Vadivel gave a key note address in the 2<sup>nd</sup> International Conference on "Innovative developments in ICT : Today and Tomorrow", held on 2-3 March, 2013, at PG dept of Computer Science and IT, DAV College, Amritsar, India.
3. Dr. Vijaya Ilango conducted a workshop on "Co-ordination Compounds and its Real Life Applications" as a part of Faculty enrichment Program for Chemistry Department Teachers of DPS Sharjah, UAE on 21 February 2013.

A consolidated list of BPDC faculty who participated in International and National Workshops, along with the details is given in Annexure B4-11 and B4-12.

**B4.14 DEPARTMENTWISE REPORTS****B4.14.1 Department: Chemical Engineering**

Number of faculty members (as on 31st December 2013)

Senior Professors, Professors	-
Associate Professors	03
Assistant Professors	02
Lecturers	-
Visiting Faculty	-

**Head of the Department:** Dr. Bharat B. Gulyani**Contact details:** [gulyani@bits-dubai.ac.ae](mailto:gulyani@bits-dubai.ac.ae)**Number of PhD Scholars:** *NIL***Ph.D. Thesis Submitted during the year:** *NIL***A. Sponsored Research activities:** *NIL***B. Publications:****C. Conferences attended/papers presented:**

1. Shreyas Jaikhani, Prateek Khara, Mohammed Al Hasan Mahmudul Hassan & Prakash Kumar B. G., "Production Of Electricity Using Energy Storing Salts" Participated in 4th Engineering Student renewable Energy Competition (ESREC 2013) held at UAE University, Al Ain, UAE, on 4<sup>th</sup> May, 2013.
2. Aparajita Dasgupta, Atullya Prakash, Janhavi Shanker Velandy, Shweta Prem, Aishwarya Garg & Prakash Kumar B. G., "Exploiting Solar Energy through Ways of Artificial Photosynthesis" Participated in 4th Engineering Student renewable Energy Competition (ESREC 2013) held at UAE University, Al Ain, UAE, on 4<sup>th</sup> May, 2013 (selected up to finals).
3. Dalmia, K. Menon, Pushkala Muralidharan, Prakash Kumar B.G, Neeru Sood, "Economic Analysis of Energy Production from Waste and Agricultural Sources", International Congress on Materials and Renewable Energy (MRE 2013), 1-3 July 2013, Athens, GREECE.
4. B G Prakash Kumar Participated in the one day symposium on "Materials and Chemistry for New Energy Technologies' at Masdar Institute, Abu Dhabi on 11<sup>th</sup> December, 2013.

**D. Books Published/Edited during the year:** *NIL***E. Conferences, seminars & workshops conducted:** *NIL***F. Invited Talks given by BITS faculty:** *NIL***G. Invited talks arranged in the department:**

Dr. Mette Thomsen, Asst. Professor, Chemical Engineering, Masdar Institute, Abu Dhabi, UAE and Tanmay Chaturvedi, BITS alumni and a Ph. D. student at Masdar Institute interacted with students on 22<sup>nd</sup> May 2013.

**H. Awards and recognitions won by faculty and students:** *NIL***I. Faculty Development, International Collaboration & Industry Immersion:** *NIL***J. Significant new equipments/experimental facility added during the year:**

The following equipments were procured for Chemical Engineering Lab II:

Tubular Reactor, Semi Batch Reactor, Vapor Liquid Equilibrium apparatus, Continuous Stirred Tank Reactor in series, RTD studies in Plug flow reactor, Isothermal Batch Reactor, Bomb Calorimeter,

Photo Colorimeter, Cleaveland apparatus (flash and fire point), Pensky Martin (flash point), Orbital Shaker, Continuous Stirred Tank Reactor, Flame Photometer, Orsat analysis, Cooling tower and UV Photo reactor.

**K. Departmental association/club activities:**

1. Chemical Engineering Department organized freshmen function for 1st year chemical engineering students on 26<sup>th</sup> September 2013.
2. CHEMICAL ENGINEERING STUDENTS ASSOCIATION (ChESA) was formed and executive board meeting held on 10 October 2013.
3. Many students registered with AIChE (American Institute of Chemical Engineers) in order to start a student chapter of AIChE at BPDC. A proposal for AIChE student chapter to be initiated at BPDC was accepted and activities for the chapter were started in September 2013.
4. The entire ChESA organization was divided into following 6 teams:
  - o Academic Advancement Team
  - o Research Promotion Council
  - o Event Management Team
  - o Editorial Board, ChESA magazine
  - o Career Development Team
  - o Alumni Outreach Team

Each team was given certain responsibilities to be carried out. "ChESA Corner", a wall magazine for ChESA was started with Ramani as the chief editor. Articles from newspapers, science articles over net, CEP and other announcements were posted on the wall magazine as an initiative of keeping students abreast with latest trends in Chemical engineering. This magazine was revamped in November to include "In A Nutshell" which would give a brief note on a selected topic. The e-magazine "The Philomath" is proposed to be launched in the Second Semester of 2013-2014. A cover design competition for the magazine was held during Artex 2013 to give an opportunity to everyone to contribute for the magazine. As a channel of communication, the ChESA website was launched in November 2013.

5. A quiz competition called "Formulate" was held by ChESA during Technofest 2013 with the goal of spreading awareness of the diversity of Chemical Engineering. An industrial visit to one of the world's largest aluminum plant, DUBAL was organized. The second, third and fourth year students were shown around the premises of DUBAL which includes a power plant, desalination plant, waste-water treatment plant and housing facilities besides the aluminum production plant.



**B4.14.2 Department: Electrical & Electronics Engineering**Number of faculty members (as on 31<sup>st</sup> December 2013)

Senior Professors, Professors	02
Associate Professors	04
Assistant Professors	03
Lecturers	01
Visiting Faculty	-
Adjunct Professor	01

**Head of the Department:** Dr. R Mary Lourde**Contact details:** marylr@dubai.bits-pilani.ac.in**Ph.D. Thesis Submitted during the year:** NIL**Number of PhD Scholars:** 01**Ph.D. Proposal Submitted during the year:** 01**A. Sponsored Research activities:****(i) Ongoing projects:**

iGenus, USA sanctioned a project on “Design of smart phone applications on Android Platform” to two students with Dr. Anand Kumar as the Principal Investigator.

**(ii) Projects sanctioned during the year**

iGenius, USA sanctioned a project on “Design of smart phone applications on three platforms: iPhone, Android and Windows” to four students with Dr. Anandkumar as the Principal Investigator.

**(iii) Projects completed this year:** NIL**B. Publications:**

1. Joseph George, Jagadish Nayak, “Steganography On Medical Images To Record Investigation Results”, World Academy of Informatics and Management Sciences, Vol 2 Issue 5, August-September 2013.
2. J. Alamelu Mangai, Jagadish Nayak and V. Santhosh Kumar, “A Novel Approach for Classifying Medical Images Using Data Mining Techniques”, International Journal of Computer Science and Electronics Engineering (IJCSEE) Volume 1, Issue 2 (2013).
3. Jagadish Nayak, “Automated Classification of Normal, Cataract and Post Cataract Optical Eye Images using SVM Classifier”, Proceedings of the World Congress on Engineering 2013 Vol III, WCE, 3-5 July 2013, London, U.K.
4. Adarsh Venkataraman Ganesan, Hardeep Kumar, Sundaram Swaminathan, K. K. Singh, Neeru Sood, Trupti Gokhale and R. K. Mittal, “Analysis of MEMS based microneedles for blood monitoring,” Springer BionanoScience Journal (Accepted for publication on 23<sup>rd</sup> May 2013).
5. Adarsh Venkataraman Ganesan, Sundaram Swaminathan and Rama Jayaraj, “A Simplified Solid Mechanical and Acoustic Model for Human Middle Ear,” International Journal of Mathematical and Computational Sciences, (2013), Issue: 73, pp. 833-837.

**C. Conferences attended/papers presented:**

1. Dr. Jagadish Nayak participated and presented a research paper titled, "Automated Classification of Normal, Cataract and Post Cataract Optical Eye Images using SVM Classifier", in International conference of Signal and Image Engineering, World Congress on Engineering 2013, organized by International Association of Engineers, held in London, U.K., 3-5 July, 2013.
2. Pranav Ravikumar, Arunabha Bera, Vijay K. Mehra, and Anand Kumar, "CO-OFDM DSP Channel Estimation", World Academy of Science, Engineering and Technology, Dubai, UAE, 5-6 March, 2013.
3. Aditya Maddali and Anand Kumar, "Evolving an Organization Structure for Cost Effective Innovation", BCS International IT Conference, Abu Dhabi, UAE, 31 March – 1 April 2013.
4. Nilay Acharya, Jithu Raju, Anand Kumar, Mihai Tache and Valeriu Beiu, "Monte Carlo Analysis of the Static Noise Margins for CMOS Gates in Predictive Technology Models", IEEE GCC 2013, Doha, Qatar, 17-20 November 2013.
5. Ashok Vydyanathan, Anand Kumar, R.K. Mittal and Maneesha, "Optimization of a pressure transmitter manufacturing line", IEEE GCC 2013, Doha, Qatar, 17-20 November 2013.
6. Navya Yelloji, Navnith Ravindran, Anand Kumar, Arun Bera and Vijay Mehra, "Modeling PM-BPSK Signals for Coherent Optical Transmission over Single-Mode Fiber", 7<sup>th</sup> European Modelling Symposium, EMS2013, Manchester, U.K., 20 – 22 November 2013.
7. Adarsh Venkataraman Ganesan, Varun Das Ramanujam Ramdoss, Deepan Kishore Kumar and Sundaram Swaminathan, "Novel low cost powerless MEMS based Ossicular System," ASME International Mechanical Engineering Congress and Exposition, November 15-21, 2013, San Diego, CA.
8. Adarsh Venkataraman Ganesan, K. K. Singh, Sundaram Swaminathan, Trupti Gokhale and Neeru Sood, "A Novel MEMS based Immunosensor for Ebola Virus Detection," ASME International Mechanical Engineering Congress and Exposition, November 15-21, 2013, San Diego, CA.
9. Adarsh Venkataraman Ganesan, Sundaram Swaminathan, "Failure Analysis of MEMS based piezo resistive Fingerprint sensor," ASME International Mechanical Engineering Congress and Exposition, November 15-21, 2013, San Diego, CA.
10. Adarsh Venkataraman Ganesan, Deepan Kishore Kumar, Anomitra Banerjee and Sundaram Swaminathan, "MEMS based Microfluidic System for HIV Detection," IEEE NANO Conference, Beijing, 5-8 August, 2013.
11. Deepan Kishore Kumar, Sundaram Swaminathan, Anomitra Banerjee and Mustafa Mahesri, "MEMS Modelling of the Posterior Semicircular Canal for Treating BPPV," Proc. IEEE International Conference on Micro/Nano Engineered and Molecular Systems held in Suzhuo, China.
12. Aliakbar Eski and Sunil Thomas, "Transient Analysis and Simulation of a DC Series Motor fed through a chopper subjected to a change in Duty Cycle", Proceedings of National Conference on Emerging Technologies, BIT-RAK, 26 May 2013.
13. Aliakbar Eski and Sunil Thomas, "Design And Analysis on a Linear Braking System for a Separately excited DC motor under Dynamic Braking", Proceedings of National Conference on Emerging Technologies, BIT-RAK, 2013, 26 May 2013.
14. Chirag Mehta, Prateek Dhariwal, Shivani Palekar and Anish Agarwal, "Enhancing Profitability in Furniture Manufacturing Using Six Sigma Methodology," Proceedings of International Conference on Technology & Business Management, Dubai, UAE, 2013.
15. Chirag Mehta and Pushkala Muralidharan, "Managing Risk in Investments- Prediction of Instrument Prices," International Conference on Technology & Business Management, Dubai, UAE, 2013.
16. Adarsh Venkataraman Ganesan, Hardeep Kumar, Sundaram Swaminathan and K. K. Singh, "Design of MEMS based Micro- Hot Plate for integrated poisonous gas sensing system," Proceedings of International Conference on Computational Modeling, Simulation and Analysis, Dubai, January 2013, vol. 73, pp. 1539-1543.

17. Hardeep Kumar, Adarsh Venkataraman, Reenu Anne Joy, Neeru Sood, K. K. Singh, Sundaram Swaminathan and R. K. Mittal, "Nano Sensing of H<sub>2</sub>S- Comparative Study of Different Sensing Methods," Proceedings of International Conference on Emerging Technologies from Micro to Nano, Goa, February 2013.
18. Reenu Anne Joy, Kiran Menon, Neeru Sood, Trupti Gokhale, Adarsh Venkataraman, Hardeep Kumar, Upala Banerjee, Shruti Niranjana Pandit, K. K. Singh, Sundaram Swaminathan and R. K. Mittal, "Microsensors for Water Quality Assessment: A Review," Proceedings of International Conference on Emerging Technologies from Micro to Nano, Goa, February 2013.
19. Seba Sara Varghese, Adarsh Venkataraman Ganesan and Sundaram Swaminathan, "A QUCS Model for a MEMS Capacitive Pressure Sensor," Proceedings of International Conference on Emerging Technologies from Micro to Nano, Goa, February 2013.
20. Deepan Kishore Kumar, R. R. Varun Das, N. N. Sharma and R. K. Mittal, "A Novel MEMS device for Dielectrophoretic Manipulation of Bio-particles," Proc. International Conference on Emerging Technologies from Micro to Nano, Goa, February 2013.
21. Deepan Kishore Kumar, Rama Jayaraj, R. R. Varun Das and Sundaram Swaminathan, "A simplified Micro-cantilever based Actuator model for the Middle Ear using COMSOL," Proceedings of International Conference on Emerging Technologies from Micro to Nano, Goa, February 2013.
22. Nilay Doshi, Shaatir Khanzada and Waseem Abdullah, "Design of Nano-Mechanical for sensing an amplification of Surface Acoustic Waves," Proceedings of International Conference on Emerging Technologies from Micro to Nano, Goa, February 2013.

**D. Books Published/Edited during the year: NIL**

**E. Conferences, seminars & workshops conducted:**

1. Dr. R Mary Lourde was the convener to organize CETA Knowledge Quest – 2013 which was conducted in the Dubai Campus in February 2013 for the School children in the grade VIII – XII of Indian schools in UAE.

**F. Invited Talks given by faculty: NIL**

**G. Invited talks / technical visits arranged by the department:**

A Field trip to ETA M & E substation is conducted through the Association of Electronics Engineers and a set of 60 students are benefited by the trip.

**H. Awards and recognitions won by faculty and students**

1. The Student Team iORTA comprising exclusively of first years stood ninth in an international field of over 23 teams at iARC Kanpur held during 14-18 March 2013.
2. Deepan Kishore Kumar got First place in Old Guard Technical Oral Presentation Competition at ASME Gulf Student Professional Development Conference (SPDC) at Beirut, Lebanon. He received cash prize of \$500 and travel expenses to participate in the final round of Old Guard Technical Oral Presentation Competition at ASME International Mechanical Engineering Congress and Exposition, San Diego, CA.
3. Adarsh Venkataraman Ganesan got Second place in Old Guard Technical Oral Presentation Competition at ASME Student Professional Development Conference (SPDC) District J (Title: Design and Simulation of MEMS based Immunosensor for Ebola Virus Detection).
4. Ben Anthony, Deol Adhithia, Jerin Philip, Samson Varghese won the BEST IDEA PRIZE at ESREC 2013 (Engineering Students Renewable Energy Competition 2013) for their project entitled "Conversion of Waste Vegetable Oil into Biodiesel".
5. Deepan Kishore Kumar secured Rank 1 for the project "A Novel Eye Pad for characterising Nystagmus" under Natural and Health Science Category at the First United Arab Emirates Undergraduate Student Research Competition (UGSRC) under the patronage of H.H. Sheikha Latifa Bint Hamdan Bin Zayed Al Nahayan. The supervisor for this project is Prof. S. Swaminathan. Deepan got cash Prize of AED 10000/-.
6. Deepan Kishore Kumar secured Rank 1 for the project "A MEMS Device for treating BPPV" under Engineering Category at the First United Arab Emirates Undergraduate Student

Research Competition (UGSRC) under the patronage of H.H. Sheikha Latifa Bint Hamdan Bin Zayed Al Nahayan. He received a cash prize of AED 7000/-.

7. Deepan Kishore Kumar, Adarsh Venkataraman Ganesan and Radhika Kapoor won the second place in Rapid Design Competition at ASME Student Professional Development Conference (SPDC) District J.
8. Chirag Mehta, Prateek Dhariwal, Shivani Palekar, Anish Agarwal won the Best Student Paper Award for the paper entitled, "Enhancing Profitability in Furniture Manufacturing Using Six Sigma Methodology," at International Conference on Technology & Business Management, 2013.
9. Deepan Kishore Kumar got accepted in the 2013 Summer Undergraduate Research Fellowship, California Institute of Technology (CALTECH), Pasadena, CA under Prof. Axel Scherer, and Akram Sadek (PhD Student) and will be carrying out his research project in the area of Microfluidics and Nanofabrication at Caltech Nanofabrication Group.
10. Adarsh Venkataraman Ganesan and Shruti Nambiar won MITACS Globalink Internship Award 2013, University of British Columbia, Canada (Acceptance rate of less than 10 %). Adarsh will be carrying out his research project on "Optimal Design of CO2 detector under uncertainty" under the supervision of Dr. Luis Richardez Sandoval, University of Waterloo, Ontario, Canada.
11. Deepan Kishore Kumar, Vivek Radhakrishnan and other IFOR group members presented a talk on Celebrating Robotics in the Emirates" at the IEEE Robotics and Automation Society, UAE Chapter.
12. The team InnoSpell (Nambiar Shruti Surendrakumar, Sai Harish Arigeli, Anu Singhal, Pratik Sen) is one of the eight finalists at Imagine Cup, UAE, 2013.

#### **I. Faculty Development, International Collaboration & Industry Immersion**

1. Dr. Anand Kumar reviewed two ICT Fund Research Proposals during 2013 and one R & D Institute Proposal.
2. Dr. R Mary Lourde served as a reviewer and technical committee member for the IEEE International Conference on Power & Energy Systems: Towards Sustainable Energy - PESTSE – 14, India and reviewed two research papers in December 2013.
3. Non-financial sponsored projects with collaboration:
  - SRC Funding granted to UAE University, Al Ain, UAE Nilay Acharya and Jithu Raju completed their M.E. (Microelectronics) dissertations in January 2013 on this funded project resulting in a conference paper at IEEE GCC 2013.
  - Harish Nair's dissertation in MBA during I Semester 2012-2013 entitled "Neural Network Modeling, Simulation and Prediction of Innovation Growth in United Arab Emirates (UAE)" was co-supervised by Dr. Osman Ahmed, VP/Global Head Siemens Building Technologies.
4. Pranav Ravikumar's research for FD Thesis during I Semester 2012-2013 (completed in January 2013) on a project sponsored by iCoreTec, Bangalore, India leading to a paper at World Academy of Science, Engineering and Technology Conference.
5. Navya Yelloji (Final Year FD project in II Semester 2012-2013) and Navnith Ravindran (M.E. Microelectronics Dissertation in Summer 2013) worked on a project sponsored by iCoreTec, Bangalore, India leading to a paper at EMS 2013.
6. Gopal Prabhu's summer dissertation during June-August 2013 entitled "Analyzing and Selection of Right Projects for Tendering For a Construction Company based in UAE", is being utilized at ASCON, UAE and initial results are promising.
7. Gopal Prabhu's ongoing dissertation during I Semester 2013-2014 is entitled "Analyzing and managing the risks associated with construction projects, prior to submission of tenders" and is drawn to support ASCON Construction Company's decision making.

#### **J. Significant new equipments/experimental facility added during the year:**

**K. Departmental association/club activities:**

1. "Playing With Images – The Process Behind" was an introductory seminar on Image Processing conducted by the Association of Electronic Engineers on 12<sup>th</sup> March 2013 and presented by Aliakbar Eski, a 4th year Student of Electrical & Electronics Engineering.
2. The Association of Electronics Engineers held a soldering workshop and competition in succession on 14<sup>th</sup> April 2013.
3. The Association of Electronics Engineers (AEE) also organized a competition named "Circuitrix" at the Technofest 2013.
5. A workshop on the Electronic Design Automation software PSPICE was conducted by the AEE on 15<sup>th</sup> May 2013, to encourage the students to use the tool.
6. A Hands-On workshop on programming and interfacing the Arduino Microcontroller was held by the Association of Electronics Engineers in March 2013 which was well appreciated by the student community.
7. Freshmen welcome to department was conducted for the batch of 2013 new admissions in September 2013 by the Association of Electronics Engineers.

**B4.14.3 Department: Mechanical**

Number of faculty members (as on 31<sup>st</sup> December 2013)

Senior Professors, Professors	03
Associate Professors	05
Assistant Professors	06
Lecturers	-
Visiting Faculty	-

**Head of the Department:** Dr. C. Perisamy

**Contact details:** *perisamy@dubai.bits-pilani.ac.in*

**Number of PhD Scholars:** 02

**Ph.D. Thesis Submitted during the year:** NIL

**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department: 01

- (i) **Ongoing projects:** 01  
Redesigning of cable pulling wrench for Elfit Arabia, Ajman, UAE
- (ii) **Projects sanctioned during the year:** NIL
- (iii) **Projects completed this year:** NIL

**B. Publications:**

1. R. Karthikeyan, "Analysis of gas Metal Arc Welding Process using GA tuned fuzzy rule based system", Journal of Intelligent and Fuzzy systems, DOI: 10.3233/IFS-120650, pp 429-440., IOS Press, 2013.
2. R. Karthikeyan, "Optimization of EDM Characteristics of WC/5ni Composites Using Response Surface Methodology", International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-2, Issue-5, November 2013.

3. R. Udayakumar, "Use of Alcohol as an alternate fuel in diesel engine", International Journal of Mechanical engineering, Vol.2, No5, August-September 2013, pp1-13.

**C. Conferences attended/papers presented:**

1. Dr. M.V. N. Sankaram, "Computer aided design and analysis of a single stage gear box", International conference on Mechanical Engineering and Mechatronics 2013, 8-9 August 2013, Ryerson University, Toronto, Canada.
2. Dr. N. K. Millerjothi, "Effect of EGR on the Characteristics of HCCI Engine Using DEE as an Ignition Enhancer", International conference on Mechanical, Automotive and Aerospace Engineering, Kuala Lumpur, July 2-4, 2013, organised by IIUM at Malaysia.
3. Dr. N. K. Millerjothi, "Groundwater Remediation through Nanoscale Iron Particles", Proceedings of the 15th International Conference on Environmental Remediation and Radioactive Waste Management" September 8-12, 2013, ICEM2013, Brussels, Belgium.
4. Dr. N. K. Millerjothi, "Site Remediation Techniques in India: A Review", Proceedings of the 15th International Conference on Environmental Remediation and Radioactive Waste Management', September 8-12, 2013, ICEM2013, Brussels, Belgium.
5. Dr. R. Udayakumar, "Computer Modeling and Simulation of Diesel Engine Processes", International Conference on Computer Applications Technology, ICCAT 2013-January 20-22, Sousse, Tunisia, Paper Id -1569696105 -AT69.
6. Dr. R. Udayakumar, "Computer Aided Design and Analysis of Disc Brake Rotors for Passenger Cars", International Conference on Computer Applications Technology, ICCAT 2013-January 20-22, Sousse, Tunisia, Paper ID. No.1569688991.
7. Dr. R. Karthikeyan, "Application of Fuzzy Logic Control Strategy for Temperature Control in Friction Stir Welding", ASME Gas turbine India Conference, 5-6 December 2013, Bangalore, India.
8. Dr. R. Karthikeyan, "Application of Fuzzy Logic for Charging Control of Lead-Acid battery in Stand-alone Solar Photovoltaic System", IEEE International Conference on Green Computing, Communication and Conservation of Energy, December 12-14, 2013.
9. Dr. C. Mallika Parveen, "Investigation of Management Philosophies in Lean and Green Supply Chain – Impact of Employee Empowerment in Improving Productivity", 2nd International Conference on Mechanical Engineering and Mechatronics, ICMEM'13, August 8-9, 2013, Toronto, Canada.
10. Dr. C. Mallika Parveen, "Optimization of Automatic Transmission Fluid Parameters using Taguchi Method and its Application", 2nd International Conference on Mechanical Engineering and Mechatronics, ICMEM'13, August 8-9, 2013, Toronto, Canada.
11. Dr. C. Mallika Parveen, "Comparative Analysis of Hybrid Vehicle Braking System – A Perspective of KERS", 2nd International Conference on Mechanical Engineering and Mechatronics, ICMEM'13, August 8-9, 2013, Toronto, Canada.
12. Dr. C. Mallika Parveen, "Optimization of Airflow via an Air Restrictor", 2nd International Conference on Mechanical Engineering and Mechatronics, ICMEM'13, August 8-9, 2013, Toronto, Canada.
13. Dr. C. Mallika Parveen, "Logistics Network Simulation Design", World Congress on Engineering 2013, WCE 2013, 3 – 5 July, 2013, London, U.K.
14. Dr. C. Mallika Parveen, "Comparative Study of Lean Manufacturing Tools used in the Manufacturing Firms and Service Sector", World Congress on Engineering 2013, WCE 2013, July 3 - 5, 2013, London, U.K.
15. Dr. C. Mallika Parveen, "Air Flow Optimization via a Venturi Type Air Restrictor", World Congress on Engineering 2013, WCE 2013, July 3 - 5, 2013, London, U.K.
16. Dr. C. Mallika Parveen, "Comparative Study on various KERS", World Congress on Engineering 2013, WCE 2013, 3 – 5 July, 2013, London, U.K.
17. Dr. C. Mallika Parveen, "Application of Taguchi Method in the Selection of Hydraulic Fluids in Torque Converters", World Congress on Engineering 2013, WCE 2013, 3 – 5 July, 2013, London, U.K.

18. Dr. C. Mallika Parveen, "Optimization of Hydraulic Fluid Parameters in Automotive Torque Converters", International Conference on Aerospace Mechanical Automotive and Materials Engineering, 30<sup>th</sup> January, 2013, Dubai, UAE.

**D. Books Published/Edited during the year: NIL**

**E. Conferences, seminars & workshops conducted: NIL**

**F. Invited Talks given by BITS faculty: NIL**

**G. Invited talks arranged in the department:**

1. Mr. C. Renganathan, Director Chennai Metco Pvt Ltd, India, delivered a lecture on 'Metallography' on 14<sup>th</sup> March 2013.
2. Dr. Shivakumar Ranganathan, Assistant Professor in Mechanical Engineering, American University of Sharjah, UAE presented a lecture on 'Scaling and Homogenization in Spatially Random Composites' on 13<sup>th</sup> November 2013.

**H. Awards & Recognitions Won By Faculty & Students**

1. Dr. C. Perisamy was a member of editorial board for International Journal of Science Engineering & Management.(IJSEM).
2. Dr. M. V. N. Sankaram was invited as a Member of Steering committee for the fourth successive year for the Engineering Students Renewable Energy Competition 2013 (ESREC 2013).
3. Dr. M. V. N. Sankaram Invited as a Member of ASME District J Operating Board from 2013-16.
4. Mr. Anshul Singhal was nominated as a Secretary of ASME District J Student Operating Board for the year 2013-14.
5. Mr. Anomitra Benerjee was awarded \$2000/- stipend by ASME for presenting a paper at an international conference during 8-12 September, 2013 in Brussels, Belgium.
6. Mr. Arjun Arya, Mr. Sayed Aquib Hazari and Mr Anirudh Valluri won the Third prize in Engineering category for their research paper entitled "A study on possible implementation of the Waste to Energy Generation Process in the UAE" at the First Undergraduate Students' Research Competition, held on 23<sup>rd</sup> April 2013 conducted by Abu Dhabi University, Abu Dhabi.

**I. Faculty Development, International Collaboration & Industry Immersion: NIL**

**J. Significant new equipments/experimental facility added during the year:**

The Lathe tool dynamometer and Surface roughness tester were installed and commissioned in the Mechanical Laboratories during 2013.

**K. Departmental association/club activities:**

(i) **ASHRAE Student Chapter**

The students conducted an event POSEIDON during Technofest 2013.

(ii) **ASME Student Chapter**

1. BPDC students won prizes in the following competitions held in Khalifa University, Abu Dhabi in May 2013. Old Guard Oral Presentation Competition (OGOPC), Student Design Competition (SDC), Rapid Design challenge & Bridge competition.
2. Mr. Deepan Kishore Kumar topped in OGOPC among all the participants from all the student sections in the Gulf region of ASME District –J. He also topped in the whole district J at SPDC, Lebanon held in May 2013. He was sponsored by ASME for attending ASME IMEC 2013 held in November 2013.
3. Mr. Adarsh Venkatraman, has been selected as a finalist in the 2013 ASME Young Engineers Paper (YEP) Contest and won third prize of \$200/- in the final contest held at ASME IMEC (International Mechanical Engineering Congress) 2013, during 5-12, November 2013 at Sandi ego, USA. His trip to USA was fully funded by ASME.

**(iii) SAE Student Chapter**

List of projects completed:

1. SAE BAJA 2013, Team Name: Team Xtreme Addiction, Venue: Cookeville, Tennessee, USA, 18-19 April, 2013.
2. Junkyard Vehicle to Train Freshers in Mechanical Department, Team Name: Sand Dukes, Venue: BITS Pilani, Dubai Campus, 1 February -1 June, 2013.

**B4.12.4. Department: Computer Science**Number of faculty members (as on 31<sup>st</sup> December 2013)

Professors	01
Associate Professors	01
Assistant Professors	03
Senior Lecturers	04
Lecturer	01

**Head of the Department:** Dr. S. Vadivel**Contact details:** vadivel@dubai.bits-pilani.ac.in**Number of Ph.D. Scholars:** 9**Ph.D. Thesis Submitted during the last one year:** 01**A. Sponsored Research activities:**Total number of Sponsored Projects in the department: *NIL***B. Publications:**

1. S. Susila and S. Vadivel, "Web service selection through QoS Agent Web service", International Journal of Software and Web Sciences (JSWS), ISSN (Online): 2279-0071, ISSN (Print): 2279-0063 (September-November, 2013, Issue 6, Volume 1), pp 18-23.

**C. Conferences attended/papers presented:**

1. Nilay Kumar Kiran Sangani, Vijayakumar B, Madijagan M, "Social Media Security Strategy Architecture for Online Reputation Management", Proceedings of International Conference on Innovative Technologies, IN-TECH – 2013, 10-12 September 2013, Budapest, Hungary, pp. 451-453.
2. Ms. Susanna S Henry, "On Reachability Analysis in MIPv4-MIPv6 coexistence phase", 2013 International Conference on Current Trends in Information Technology, held between 11-12 December, 2013, HCT, Dubai.
3. Dev Dua and Vijayakumar B, "Study and Design of an Efficient and Sustainable Framework for E-Waste Management", Proceedings of National Conference on Emerging Technologies - 2013, 26<sup>th</sup> May 2013; BIT Offshore Campus, RAK, UAE.

**D. Books Published/Edited during the year:** *NIL***E. Conferences, seminars & workshops conducted:**

1. Microsoft tech Club organized a workshop on "windows azure programming", conducted by Rami, technical evangelist from Microsoft Gulf on 13<sup>th</sup> November 2013.



**F. Invited Talks given by BITS faculty:**

Dr. S. Vadivel gave a key note address in the 2nd International conference on "Innovative developments in ICT: Today and Tomorrow" held during 2-3 March, 2013, PG dept of Computer Science and IT, DAV College, Amritsar, India.

**G. Invited talks arranged in the department: NIL****H. Awards and recognitions won by faculty and students**

1. Nilay Kumar Kiran Sangani M.E.(SS) got the best paper award entitled "Social Media Security Strategy Architecture for Online Reputation Management", for Science Technology Transfer under the area: Computer Science, among all the 70+ papers presented from all the areas in the International Conference on Innovative Technologies, IN-TECH – 2013, 10-12 September 2013, Budapest, Hungary.
2. Arihant Sogani won the Scholarship Award worth \$1000/- conducted by Upsilon Pi Epsilon (UPE), International Honor Society for the Computing and Information Disciplines in September 2013.
3. Dr. Sujala Shetty reviewed three papers for the 7<sup>th</sup> IEEE GCC Conference and Exhibition held during 17- 20 November 2013 at Doha, Qatar.

**K. Departmental association/club activities:**

1. **Microsoft Tech Club:** The dot net club was renamed as Microsoft Tech Club and more than 150 students registered as members of the club and the following events were organized several events:
  1. Hackathon event in October 2013.
  2. a) Inicio event b) Heisenberg events for school children during Technofest 2013.
  3. The group actively conducted 5 workshops from September to November 2013 on a) Windows 8.0 mobile, windows web application development and b) Basics of C#. All the activities of the group were uploaded in face book via videos.
2. **Linux Users Group:** The Linux Users group actively organized and collaborated events with other clubs and associations. The registrations were free and open to all BPDC students. Series of Presentations were held during 2013 covering the topics UBUNTU LINUX Installation and Configuration, Benefits of Open Source Software, Installation and Demonstration for INKSCAPE and GIMP Software Tools under LINUX.
3. **BPDC ACM Student Chapter:** A total of 23 registrations were made during September 2013 with Ms. Susanna S Henry as the Faculty Advisor. The events organized during the year:
  1. A three day workshop on Photoshop was conducted by Mr. Muzammil
  2. Code Relay and Codesians Competitions were organized during Technofest 2013.

**B4.14.5 Department: Electronics & Instrumentation Engineering**

Number of faculty members (as on 31<sup>st</sup> December 2012)

Senior Professors, Professors	02
Associate Professors	01
Assistant Professors	02
Lecturers	-
Visiting Faculty	-

**Head of the Department:** Dr D V PRASAD

**Contact details:** [prasad@bits-dubai.ac.ae](mailto:prasad@bits-dubai.ac.ae)

**Number of PhD Scholars:** NIL

**Ph.D. Thesis Submitted during the year:** NIL

**A. Sponsored Research activities:** NIL

**B. Publications:**

1. V. Kalaichelvi, R. Karthikeyan & D. Sivakumar, "Analysis of gas Metal Arc Welding Process using GA tuned fuzzy rule based system", Journal of Intelligent and Fuzzy Systems, DOI:10.3233/IFS-120650, pp 429-440, 2013.

**C. Conferences attended/papers presented:**

1. Swathika R, V. Kalaichelvi, R. K. Ganesh Ram and R. Karthikeyan, "Application of Fuzzy Logic for Charging Control of Lead-Acid battery in Stand-alone Solar Photovoltaic System", IEEE International Conference on Green Computing Communication and Conservation of Energy", 12-14 December, 2013.
3. Adarsh Venkataraman Ganesan and S. Swaminathan, "Failure and Sensitivity Analysis of MEMS based Piezo resistive Finger Print Sensor", ICMEC2013 - 66763, International Mechanical Engineering Congress and Exposition (IMECE 2013) organized by ASME, 15 - 21 November 2013, Sandiego, USA.
4. Deepan Kishore Kumar, Adarsh Venkataraman Ganesan, S. Swaminathan and R. K. Mittal, "A Novel MEMS Device for Selective Surface Adsorption of lead (II) Ions from blood using Carbon Aerogel", ICMEC2013 - 66306, International Mechanical Engineering Congress and Exposition (IMECE 2013) organized by ASME, 15 - 21 November 2013, Sandiego, USA.
5. Adarsh Venkataraman Ganesan, Varun Das Ramanujam, S. Swaminathan and Deepan Kishore Kumar, "Novel Low Cost Powerless MEMS-based Ossicular System", ICMEC2013 - 66341, International Mechanical Engineering Congress and Exposition (IMECE 2013) organized by ASME, 15 - 21 November 2013, Sandiego, USA.

**D. Books Published/Edited during the year:** NIL

**E. Conferences, seminars & workshops conducted:** NIL

**F. Invited Talks given by BITS faculty:** NIL

**G. Invited talks arranged in the department:** NIL

**H. Awards and recognitions won by faculty and students:**

Joint supervision of Off Campus Thesis of the following students by Prof. S Swaminathan:

- (i) Adarsh Venkataraman Ganesan: Title of Thesis: Theoretical Modeling and Numerical Simulation of Interaction between Faraday Waves and Cell Encapsulating Hydrogels, In joint supervision with Prof Utkan Demirci, Masseurhusses Institute of Technology, USA, under MIT - Harvard collaboration in BAMB Labs, USA.

- (ii) Deepan Kishore Kumar: Title of Thesis: Microfluidic based multiple pathogen detection platform, In joint supervision with Prof Utkan Demirci, Massachusetts Institute of Technology, USA, under MIT -Harvard collaboration in BMM Labs, USA.

- I. Faculty Development, International Collaboration & Industry Immersion:** NIL  
**J. Significant new equipments/experimental facility added during the year:** NIL  
**K. Departmental association/club activities:** NIL

#### **B4.14.6 Department: Biotechnology**

##### **Number of faculty members (as on 31 December 2013)**

Senior Professors, Professors	01
Associate Professors	01
Assistant Professors	02
Lecturers	-
Visiting Faculty	-

**Head of the Department:** Dr. Neeru Sood

**Contact details:** sood@ dubai. bits-pilani.ac.in

**Number of PhD Scholars:** 2

##### **A. Sponsored Research activities:**

- (i) **Ongoing projects:** NIL  
(ii) **Projects sanctioned during the year:** NIL  
(iii) **Projects completed this year:** NIL

##### **B. Publications:**

1. Kiran Menon, Reenu Anne Joy, Neeru Sood and R. K. Mittal , "The Applications of BioMEMS in Diagnosis, Cell Biology, and Therapy: A Review", Journal of BioNanoScience, Volume 3, Issue 4, pp 356-366. December 2013 (Springer Verlag Publication).
2. S. R. Sharma, N. K. Rao, T. S. Gokhale and S. Ismail, "Isolation and characterization of salt-tolerant rhizobia native to the desert soils of United Arab Emirates," Emirates Journal of Food and Agriculture, vol. 25 (2): 102-108(2013).
3. Madhumitha Balasubramani, Jyotsna Lakshmi Kumar, Nanduri Kameswara Rao, Neeru Sood, Trupti Gokhale, Somasundaram Rajeswari, Makram Belhaj Fraj and Sanjeet Mishra, "Stress tolerance of Sinorhizobium spp. Nodulating Sesbania and Cowpea in Desert soils", accepted for publication in Journal of Pure and Applied Microbiology (An international Journal of Microbiology), Vol. 8 No. 3 (2014).

##### **C. Conferences attended/papers presented:**

1. R.A.Joy, K.Menon, T.S.Gokhale and Neeru Sood, "Microsensors for Water Quality assessment: A review," International Conference on Emerging Technologies - Micro to Nano (ETMN 2013), Goa, India, 2013.
2. K. Menon, R. A. Joy, Neeru Sood and R. K. Mittal, "A Review of Trends & Progress in BioMEMS Research," International conference on Emerging Technologies- Micro to Nano (ETMN-2013), Goa, India, 2013.
3. Adarsh Venkataraman Ganesan, Hardeep Kumar, R. K. Mittal, S. Swaminathan, K. K. Singh, Neeru Sood, Reenu Anne Joy & Trupti Gokhale, "Design and Simulation of microneedles for

blood alcohol detection”, International Conference on Emerging Technologies - Micro to Nano (ETMN 2013), Goa, India, 2013.

4. Hardeep Kumar, Reenu Anne Joy, Neeru Sood, K. K. Singh, S. Swaminathan, R. K. Mittal & Adarsh Venkataraman G., “Nano Sensing of H<sub>2</sub>S- Comparative Study of different sensing methods”, International Conference on Emerging Technologies - Micro to Nano (ETMN 2013), Goa, India, 2013.
5. Salma Sheriff , "Potentials of Adult Stem Cells in Regenerative Medicine and Tissue engineering", International Stem Cell Summit-2013 (ISCS-2013) at Lifeline Multispeciality Hospital, Chennai during 4-6 January, 2013.
6. A. Dalmia, K. Menon, Pushkala Muralidharan, Prakash Kumar B.G. and Neeru Sood, “Economic Analysis of Energy Production from Waste and Agricultural Sources”, International Congress on Materials and Renewable Energy, July 1 – 3, 2013, Athens, Greece.
7. Zubair ahmed, Anand Kumar, “Expression of neprilysin, a beta-amyloid degrading enzyme in the adipose-derived stem cells of human subcutaneous fat tissue”, Poster presentation during World Conference on Regenerative Medicine, Congress Hall (CCL), Leipzig, Germany from 23 -25 October 2013. Abstract published by : Regenerative Medicine, Vol 151 (pp-001).
8. Ms. Shwetha Narasimhan attended 5<sup>th</sup> Annual Pan Arab Human Genetics Conference conducted at Al-Bustan Rotana, 17-19 November 2013.

**D. Books Published/Edited during the year: NIL**

**E. Conferences, seminars & workshops conducted: NIL**

**F. Invited Talks given by BITS faculty:**

Dr. Trupti Gokhale delivered a talk on “Exploring the Environment: A Microbiological Approach”, during National symposium organized by Wilson College, Mumbai, India on 5 January 2013.

**G. Invited talks arranged in the department:**

1. As a part of the inter-university program through an MoU between BITS Pilani- Dubai Campus and USUHS, Maryland, signed in February 2011, Mr. Raghavendar Chandran, BITS-USU Graduate Student (Goa Campus), Department of Pathology, Uniformed Services University of the Health Sciences, Bethesda, MD visited the Dubai Campus during 10-11 February 2013 and delivered 4 lectures. These lectures were attended by students, faculty and staff of Biotechnology Department, PG Students, faculty members from other disciplines and faculty members from RAKMHSU, on the following topics:
  1. Circulating MicroRNAs as novel biomarkers
  2. Circulating MicroRNAs as biomarkers for TBI & PTSD
  3. Presentation3 - MicroRNA based lab techniques
  4. Animal studies and other molecular techniques\_Maheshwari Lab
2. Professor Khaled Masmoudi, Senior Molecular Biology & Scientist from International Centre for Biosaline Agriculture, Dubai delivered special lectures for Post Graduate students of Biotechnology during February to March 2013.
3. Ms. Fatma Alhashimi, Head of Education and Development Unit, Dubai Cord Blood & Research Centre, Latifa Hospital, Pathology and Genetics Department, DHA, Dubai delivered a talk on "Importance of Cord Blood Stem Cells" on May 21<sup>st</sup> 2013.

**I. Faculty Development, International Collaboration & Industry Immersion:**

Faculty, Research Scholars and PG biotechnology students visited Dubai Cord Blood Research Centre, Latifa Hospital, Dubai on 7th July 2013 to know about the DCRC Stem cell Storage facility, Sample Processing lab and its various administrative tasks.

**J. Significant new equipments/experimental facility added during the year: NIL**

**K. Departmental association/club activities:**

As a part of Technofest 2013, Ameer Darji, Prarthna Clare, Hydari Masuma, Akshay Deshpande, Alisha and Aarti Sivakumar of Biotechnology department organized an event, “Don't Do It At Home”, on 5<sup>th</sup> December 2013.

**B4.14.7 Department: General Sciences**Number of faculty members (as on 31<sup>st</sup> December 2013)

Senior Professors, Professors	03
Associate Professors	08
Assistant Professors	06
Lecturers	01
Visiting Faculty	-

**Head of the Department: Prof. Dr. R. Roop Kumar****Contact details:** roopkumar@bits-dubai.ac.ae**Number of PhD Scholars:** 01**Ph.D. Thesis Submitted during the year:** Nil**A. Sponsored Research activities:**Total number of Sponsored Projects in the department: *NIL***B. Publications:**

1. Tapan Kumar Datta, "An Inventory Model with Price and Quality Dependent Demand where some Items produced are Defective", *Advances in Operations Research*, Vol 2013, 8 pages.
2. Karabi Dutta Choudhury, Biplab Karmakar, Mantu Das and Tapan K. Datta, "An Inventory Model for Deteriorating Items with Stock-dependent Demand, Time-varying Holding Cost and Shortages", *OPSEARCH*, accepted for publication (2013).
3. Adarsh Venkataraman Ganesan, Hardeep Kumar, Sundaram Swaminathan, K. K. Singh, Reenu Anne Joy, Neeru Sood, Trupti Ghokhale and R.K. Mittal, "Design and Simulation of Microneedles for Blood Alcohol Detection," International Conference on Emerging Technologies from Micro to Nano, organizing by BITS Pilani, Rajasthan and CEERI Pilani at BITS Goa Campus, February 2013 (Also accepted for publication in Springer Journal).
4. Indole Moiety, Rusal Raj Francis and M. A. NeelaKantan, "Synthesis, Structural Characterization and Biological Studies of Schiff Base Complexes Bearing", *J. Mod. Chem. & Chem.Tech.*, 3 (1), 2013.
5. Nithin Thomas, Rusal Raj Francis, "Applications of Nanocatalysis in Petroleum Industry", *Journal of NanoScience, NanoEngineering & Applications*, Vol: 3(2), 2013.
6. Priti Bajpai and Maneesha Bhagchandani, "A Study of Traffic Management at Toll Plaza on Delhi Gurgaon Expressway", *American Journal of Mathematics and Sciences*, Vol 2, Number 1, January 2013, 63-69.

**C. Conferences attended/papers presented:**

1. Adarsh Venkataraman Ganesan, Hardeep Kumar, S. Swaminathan and K. K. Singh, "Design of MEMS based Micro- Hot Plate for integrated poisonous gas sensing system," International Conference on Computational Modeling, Simulation and Analysis, organized by World Academic of Science, engineering and Technology held at Dubai, Proceedings issue 73, (2013), pp. 1539-1543.
2. Hardeep Kumar, Adarsh Venkataraman, Reenu Anne Joy, Neeru Sood, K. K. Singh, S. Swaminathan and R. K. Mittal, "Nano Sensing of H<sub>2</sub>S- Comparative Study of Different Sensing Methods", International Conference on Emerging Technologies from Micro to Nano, organizing by BITS Pilani, Rajasthan and CEERI Pilani at BITS Goa Campus, February 2013.
3. Reenu Anne Joy, Kiran Menon, Neeru Sood, Trupti Gokhale, Adarsh Venkataraman Ganesan, Hardeep Kumar, Upala Banerjee, Shruti Niranjan Pandit, K. K. Singh, S. Swaminathan and R.

- K. Mittal, "Microsensors for Water Quality Assessment: A Review," International Conference on Emerging Technologies from Micro to Nano, organizing by BITS Pilani, Rajasthan and CEERI Pilani at BITS Goa Campus , February 2013.
4. Vijaya Ilango and Larina Melissa D'Souza, "Effect of silver nanoparticles in waste water treatment", International Conference on Biotechnological Innovations towards Global Development, 9-10 January, 2013 , Tamilnadu, India.
  5. Vijaya Ilango and Avika Gupta, "Carbon Nanotubes -a Successful Hydrogen Storage Medium", ICSEEE 2013: International Conference on Sustainable Energy and Environmental Engineering, Singapore, September 12-13, 2013.
  6. Rajarshi Sinha, R. Roop Kumar, S. Swaminathan, "Study of nanowires as sensing interfaces for electrochemical biosensor applications", Materials Challenges in alternative and renewable energy, 16-20 February, 2014, Clearwater ,Florida, USA (paper accepted for presentation).
  7. S. Vigneswari, R. Venkatachalam, J. Ethiraj and B. Muralidharan, "Cost effective dyeing process for dyeing of PET/VISCOSE Composite Yarns using Disperse and Reactive dyes", International Conference on Recent Advances in Textile and Electrochemical Sciences (RATES 2013) held during March 21-23, 2013, in Alagappa University, Karaikudi, India.
  8. S. Vigneshwari, S. Laya , R. Venkatachalam, J. Ethiraj and B. Muralidharan, " An Investigation on the Modification of dyeing behavior of 100 % PET Spun Yarn", International Conference on Recent Advances in Textile and Electrochemical Sciences (RATES 2013) held during March 21-23, 2013, in Alagappa University, Karaikudi, India.
  9. S. Laya , S. Vigneshwari, G. Gopu and B. Muralidharan, "Effect of Azeotropic Solvent Mixture Pretreatment on the Physicochemical Behavior of Polyester/Cotton Composite Fabric", International Conference on Recent Advances in Textile and Electrochemical Sciences (RATES 2013) held during March 21-23, 2013, in Alagappa University, Karaikudi, India.
  10. S. Laya, K. Balakrishnan, R. Venkatachalam, G. Gopu and B. Muralidharan, "Study on the Influence of Tricholoro Ethylene Pre-treatment on the Dyeing and other Physico-Chemical Behaviour of 100% Polyethylene Terephalate fabric", International Conference on Recent Advances in Textile and Electrochemical Sciences (RATES 2013) held during March 21-23, 2013, in Alagappa University, Karaikudi, India.
  11. M. Kalaiselvi, V. Sethuraman, V. Ramasamy, B. Muralidharan, "Water Quality Assessment and Monitoring in and Around Sivaganga District", International Conference on Recent Advances in Textile and Electrochemical Sciences (RATES 2013) held during March 21-23, 2013, in Alagappa University, Karaikudi, India.
  12. Maneesha Bhagchandani and Priti Bajpai, "Application of Queuing Model in Dubai's Busiest Megaplex", International Conference on Mathematical Science and Statistic 2013 (ICMSS2013) held in Malaysia.
  13. Priti Bajpai, "A Review Of Themes From Ancient Indian Mathematics", National Seminar on Ancient Science and Technology, 9th March 2013 at Indian Institute of Technology Kanpur, Kanpur, UP, India.
  14. Priti Bajpai, "Quadratic Equations Vedic Analysis", published in Anusandhan (Vigyan Shodh Patrika), Vol.1, No. 1, 2013, PP. 176-178.
  15. Priti Bajpai and Maneesha Bhagchandani, "A Study of Queuing Model for a Health Care Organization", Proceedings of National Conference on Role of Mathematics in Advancement of Science and Technology (NCRMAST-2013), held during 18-20 October, 2013.
  16. Priti Bajpai and Maneesha Bhagchandani, "Measure of Performance of Queuing Models and Behavior of Customers in Real Life Applications", 2013 3rd Journal Conference on Applied Physics and Mathematics (JCAPM 2013 3rd) Sydney, Australia. To be published in International Journal of Applied Physics and Mathematics (IJAPM).
  17. Maneesha and Priti Bajpai, "Analysis of Queues at Tellers of a Bank in Dubai", National Conference on Role of Mathematics in Advancement of Science & Technology (NCRMAST-2013) held during 18 – 20 October, 2013 in Lucknow, India.
  18. Maneesha and Priti Bajpai, "Multiple Regressions Analysis using ANCOVA in University Model", 2013 3rd Journal Conference on Applied Physics and Mathematics (JCAPM 2013 3rd) held during 6-7 December, 2013 in Sydney, Australia.

19. Ashok Vydyanathan, Anand Kumar, R. K. Mittal, Maneesha, "Optimization of a pressure transmitter manufacturing line", 7<sup>th</sup> IEEE-GCC 2013 held during 17-20 November, 2013 in Qatar.

**D. Books Published/Edited during the year: NIL**

**E. Conferences, seminars & workshops conducted:**

Dr. Vijaya Ilango Conducted a workshop on "Co-ordination Compounds and its real life Applications" as a part of Faculty enrichment Program for Chemistry Department Teachers of DPS Sharjah, UAE on 21<sup>st</sup> February 2013.

**F. Invited Talks given by BITS faculty: NIL**

**G. Invited talks arranged in the department: NIL**

**H. Awards and recognitions won by faculty and students: NIL**

**I. Faculty Development, International Collaboration & Industry Immersion: NIL**

**J. Significant new equipments/experimental facility added during the year: NIL**

**K. Departmental association/club activities:**

- (i) Astroclub - Star gazing activity was conducted in the month of November/December 2013.
- (ii) Flummoxed- "B'Quizzed' an Intercollege Quiz competition in December 2013.

#### **B4.14.8. Department: Humanities & Social Sciences**

Number of faculty members (as on 31 December 2013)

Senior Professors, Professors	01
Associate Professors	02
Assistant Professors	01
Senior Lecturers	02
Lecturers	01
Visiting/ Adjunct Faculty	01

**Head of the Department:** Dr. Shazi Shah Jabeen

**Contact details:** [shazi@bits-dubai.ac.ae](mailto:shazi@bits-dubai.ac.ae)

**Number of PhD Scholars:** NIL

**Ph.D. Thesis Submitted during the year: NIL**

**A. Sponsored Research activities: NIL**

**Ph.D. Thesis Submitted during the year: 01**

Ms. Mubeena Rahman's (Senior Lecturer) PhD viva voce was conducted on 22 December 2013. Thesis title: Significance of Written English in Business Communication: An Analytical Study with Reference to Star Hotels of Dubai.

**A. Sponsored Research activities: NIL**

**B. Publications:**

Pushkala Muralidharan, and C. Madhavi, "Impact of CSR initiatives on Consumer Behavior", International Journal of Research in Commerce and Management (ISSN: 0976-2183), Vol 4, Issue 3, pp. 37- 41.

**C. Conferences attended/papers presented:**

1. Mubeena Rahman, "A Study of the Significance of Business Communication in the Hotel Industry of Dubai", 9<sup>th</sup> Annual International Conference on Tourism, Athens, Greece, July 10-13, 2013. Published in the conference proceedings.
2. K. Teja Priyanka Yadav and Shazi Shah Jabeen, "Role and Impact of Visual Communication in Microsoft PowerPoint Presentations", Proceedings of 2<sup>nd</sup> Annual International Conference on Language, Literature and Linguistics (L3 2013), organized by Global Science and Technology Forum, Singapore, June 17-18, 2013, pp 208-212.
3. Bhargav Mallampati, Spoorthi Satish, Anurag Reddy Ramireddy, G Sourya Sriharsha, Pushkala Muralidharan, "Ethical Issues due to emerging Technological Advancement", Eleventh AIMS International Conference on Management, 21-24 December, 2013, Ghaziabad, India.
4. Pushkala Muralidharan, Akshay Dalmia, Kiran Menon, B. G. Prakash Kumar, Neeru Sood, "Economic Analysis of Energy Production from Waste and Agricultural Sources", International Congress on Materials and Renewable Energy, 1-3 July, 2013, Athens, Greece.
5. Pushkala Muralidharan and Chirag Mehta, "Managing risk in investments – Prediction of Instrument Price", International Conference on Technology and Business Management, 18-20 March, 2013, Dubai, UAE.
6. Pushkala Muralidharan and Subhadra Sahana Vemuri, "Corporate Social Responsibility in the Telecom Industry of United Arab Emirates", International Conference on Technology and Business Management, 18-20 March, 2013, Dubai, UAE.

**D. Books Published/Edited during the year: Nil****E. Conferences, seminars & workshops conducted:**

- i. Dr. Raghunathan, Assistant Professor, Management, BITS Pilani, Pilani Campus conducted a workshop on "Negotiation Skills", on 8 May 2013 at BITS Pilani, Dubai Campus.
- ii. Dr. Raghunathan, Assistant Professor, Management, BITS Pilani, Pilani Campus conducted a workshop on "Decision Making", on 9 May 2013 at BITS Pilani, Dubai Campus.
- iii. Prof. Ashraf Rizvi, Director of Jaipuria Institute of Management Studies, Ghaziabad, UP, India conducted a workshop on "Improving Classroom Effectiveness", on 23 December 2013 at BITS Pilani, Dubai Campus.

**F. Invited Talks given by BITS faculty:**

- i. Prof. Meenakshi Raman, Head, Department of Humanities and Social Sciences, BITS Pilani, Goa Campus delivered a talk on "Facing Job Interviews", 21 March 2013.
- ii. Dr. Raghunathan, Assistant Professor, Management, BITS Pilani, Pilani Campus delivered a talk on "Entrepreneurship", 8 May 2013.
- iii. Dr. Raghunathan, Assistant Professor, Management, BITS Pilani, Pilani Campus delivered a talk on "Role of a Manager", 9 May 2013.

**G. Invited talks arranged in the department:**

- i. CEL (Centre for Entrepreneurial Leadership) organized an interactive session on "Creativity" by Prof. Rajiv Gupta, Professor of Mechanical Engineering (Alumnus of IIT Delhi) on 18 February 2013.
- ii. An interactive session on "Global Business Challenge 2013", with Ms. Salema Hafiz, Head of Marketing and Communications, MESANA, Chartered Institute of Management Accountants (CIMA) on 21 February 2013.
- iii. "Role of Security Exchanges – Personal Finance" by Dr. M. Selvam, Professor and Head, Department of Commerce and Financial Studies, Bharathidasan University, Tiruchirappalli on 3 March 2013.



- iv. Swami Parthasarthy was invited to the UAE by His Highness Sheikh Nahyan bin Mubarak Al Nahyan, the Minister for Higher Education and Scientific Research to deliver a Keynote on the Topic "The Dilemma of Choice". This distinguished guest lecture was co-organized by CEL, BITS Pilani, Dubai Campus and TiE (The Indus Entrepreneurs, Dubai Chapter) on 23 March 2013.
- v. A talk on 'ICT Management' was organized by Dr. Anton Ravindran, CEO and Founder of RapidStart, Singapore and President, Global Science and Technology Forum, Singapore on 10 September 2013.
- vi. An Awareness session on TiE International Business Plan Competition with Rice University, USA was organized by TiE Students' Chapter in Collaboration with BITS Pilani, Dubai Campus on 26 September 2013.
- vii. CEL organized an interactive session on 'How to Prepare a good Business Plan' by Mr. Binod Shankar, Entrepreneur, U.A.E. on 10 October 2013.
- viii. A talk and interactive session on "Entrepreneurship as a Career Option for Young Men and Women" by Faisal Farooqui, Founder and CEO of MouthShut.com on 28 November 2013.
- ix. CEL organized an interactive session on "Entrepreneurship" by Mr. Sameer Sortur, Director of Revenue Growth and Operations @ Innovator 360 Accelerator on 15 December 2013.

**H. Awards and recognitions won by faculty and students:**

- 1. Dr. Shazi Shah Jabeen was offered a membership of the Program Committee (PC) of the Annual Conference on Language, Literature and Linguistics (L3 2014), organized by Global Science and Technology Forum (GSTF) to be held in Bangkok, Thailand between 9-10 June 2013.
- 2. Dr. Shazi Shah Jabeen was appointed as Associate Editor of the GSTF Journal of Education (JEd)'s.

**I. Faculty Development, International Collaboration & Industry Immersion: NIL**

**J. Significant new equipments/experimental facility added during the year: NIL**

**K. Departmental association/club activities:**

- (i) **Association** : NIL
- (ii) **Club Activity**: NIL
- (iii) **In-house publications:**
  - a) Two issues of the in-house publications of Dubai Campus were released during the year:
    - i. @bitsdubai (Institute's newsletter) - Volume 10 Issue 1 (2012-2013)
    - ii. @bitsdubai (Institute's newsletter) - Volume 10 Issue 2 (2012-2013)
    - iii. Perspectives@bitsdubai (Institute's journal) - Volume 2 Issue 1 (2012-2013)
    - iv. Perspectives@bitsdubai (Institute's journal) - Volume 2 Issue 1 (2012-2013)
  - b) Center for Entrepreneurial Leadership released the First Edition of the semester magazine named "Conjure". The Semester Magazine is a part of the initiative called e-ink, where the Center aims to compile and publish articles relating to Innovation, Entrepreneurship and Leadership, for the BITS Community.

**B4.15 DIVISION/ UNIT/ CENTERWISE ACTIVITY HIGHLIGHTS****B4.15.1 Research & Consultancy****Recommended for the Award of Ph.D. Degree:**

S. No.	Name	Title
1	Mubeena Rahaman	Significance of Written English in Business Communication: An Analytical Study with Reference to Star Hotels of Dubai

**Ph.D. Thesis Submitted and Under Process of Evaluation:**

S. No.	Name	Title
1	K. Jeyalatha	Design, Analysis and Implementation of Algorithms for Web Mining Support Functions

**Research Contributions through Higher Degree Dissertations:**

A total of 56 M.E. and M.B.A. Dissertation Projects were carried out over a period from January 2013 to December 2013 by a total of 35 students; of which 1 student was from 2009-10 admitted batch while remaining 34 students were from batch admitted during the Academic Year 2011-12; out of which 1 was carried out during I Semester of Academic Year 2012-13, 21 were carried out during Summer Term of Academic Year 2012-13; 21 were carried out during I Semester of Academic Year 2013-14 and 13 were carried out during both Summer Term of Academic Year 2012-13 and I sem. of Academic Year 2013-14. The list is given in Annexure B4-13.

**Research Contributions through First Degree Theses:**

A total of 36 students completed their first-degree theses during both the semesters of the calendar year 2013. Besides faculty members of the Institute, scientists from R & D labs and other professionals also supervise the thesis work. The complete list is given in Annexure B4-14.

**Research Publications by Faculty, Staff and Students:**

There were a total of 73 contributions which include 16 in various international Journals and 57 in various Conferences. The complete list of research contributions made by the faculty, staff and students is given in Annexures B4-11 and B4-12.

**Some Noteworthy Achievements:**

1. Prof. R. K. Mittal, Director, BITS Pilani, Dubai Campus is a member on the Steering Committee of the Golden Jubilee Celebrations commemorating 50th year of its existence of the Birla Institute of Technology and Science, Pilani as deemed university.
2. On April 3, 2013, a total of 34 Dubai Campus faculty became Senate Members of BITS.
3. All the Departments of Dubai Campus made successful presentations to the Advisory Committee of BITS (involving all its four campuses), coordinated at Dubai Campus by Dr. Mallika Parveen held during April to November 2013 and received constructive comments.
4. Dubai Campus for the first time since its existence successfully conducted On-line Admissions & Admissions' Counseling exercise simultaneously at five different Indian locations: Chandigarh, Chennai, Delhi, Hyderabad and Mumbai on a single day i.e., July 14, 2013. In advance more than 200 aspirant students from across India registered to participate, while many others also took part along with them in the BPDC's Admissions Counseling via the-spot registrations held on 14th July, 2013
5. Students of The Social and Environmental Club at BITS Pilani, Dubai Campus participated in this years' edition of the UAE's prestigious Emirates Environmental Group (EEG)'s "Recycling Collection Campaign 2013" held on December 10, 2013 and contributed (till date) totally 15,376 kg of paper and 15 kg of Aluminum cans. EEG honored BPDC inviting it to participate in EEG's prestigious Tree Planting Ceremony and plant 4 trees under our institute's name at Al Jazeera Landfill Ras Al Khaimah, UAE.
6. Mr. S. N. Zindal, Chief R&D Officer (CRDO), BITS Pilani visited UAE during December 25-29, 2013 with a view to suggest measures to boost R&D activities at BITS Pilani, Dubai Campus (BPDC) & explore funding possibilities to BPDC. He had interactions with Dr. Sunil Kumar, Dean Faculty of Engg., NYAD, Abu Dhabi (26.11.2014), CEO/their designates at 3 Practice School Stations: ESRI Sharjah

(27.11.2014), Elfit Arabia Ajman (26.11.2014) and Energy Automation (28.11.2014), Dubai in addition to his interactions with the BITS Pilani, Dubai Campus Director, Research Working Group, Faculty, Research Scholars and Students. The Dubai Visit Report dated December 5, 2013 submitted by Mr. S N Zindal (received via an email dated December 15, 2013) had the following 4 Annexures:

- a. Annexure II: Research interest areas BPDC Faculty
- b. Annexure III: A brief on the ongoing projects till 15<sup>th</sup> November 2013 at the 3 Indian campuses of BITS; circulated to all faculty at Dubai Campus
- c. Annexure I: A gist of the interactions CRDO held during November 26-28, 2013
- d. Annexure IV: Industry Immersion Letter – for (Indian Campus) faculty aspiring to visit either Universities abroad or Industries within country during Summer Vacation 2013-2014

Also it was recommended following measures for Dubai Campus:

- (i) Dubai faculty to collaborate in research with faculty from Indian Campuses;
  - (ii) Dubai Campus work through / with eligible agencies for R&D funding from UAE Government Agencies (while observing that “As of now, BPDC, prima facie, is not eligible for research funding from UAE / Dubai Government agencies”);
  - (iii) BPDC may launch a Research and Consultancy Programme (RCP) for industry in UAE; upon bringing out an R&C DVD depicting new focus of BITS, Pilani on R&D, a snapshot of University's infrastructure (including TP), R&D profile, brief details on industry projects and consultancy assignments for all 4 campuses – for sending the same to all PS and other partner organizations in UAE with subsequent follow up by Dubai Campus.
  - (iv) Half-a-day Research and Consultancy meet - meeting with potential R&D partner organizations/Industry – with 1 hr presentations, question answer and interaction sessions for one-to-one meeting with about 50 or more Industries participating in it.
  - (v) Seed Projects Programme, at the earliest, for BPDC to build up its research profile involving most of Faculty (Asst. Profs and above) with research interest plan for about Thirty- 18-months-average-duration Projects with a Principal Investigator and 2 – 3 Co-investigators (wherever possible, one co-investigator could be from one of the Indian Campuses); The Projects to focus on short term on Industry issues.
  - (vi) With a Total outlay of UAE Dirham 3.42 Million following grants:
    - a. 20, 30 and 30 Research Assistantships of UAE Dirham 2000 per month per scholar for first, second and third year, respectively; In all sponsored projects etc., the money can come from the project funds
    - b. 20 Seed Projects in first year and another 10 Seed Projects in second year with an average financial outlay of UAE Dirham 50,000/- to take care of equipment, consumables, travel and other misc., expenses but excluding research / teaching assistantships, can be planned; No such need for third year, as sponsored projects should overtake this need by that time
    - c. Try and strengthen the research relationship with Aditya Birla S&T Company (ABSTC) and other ABG group companies located in India and outside international funding agencies such as European Research Council etc.; with BPDC to partner with academia and in some cases with industry or both from the country of funding agency
7. As part of the class work, apart from Dubai Campus faculty, the Higher Degree Students of M.E. Biotechnology Programme at Dubai Campus had a series of lecture sessions of Dr. Khaled Masmoudi, Professor, Senior Molecular Biologist, and International Center for Bio saline Agriculture (ICBA) Dubai United Arab Emirate as Guest Faculty during the Calendar Year 2013.
  8. As part of the class work, apart from Dubai Campus faculty, the MBA Students at Dubai Campus had a series of lecture sessions of Dr. Raghunathan, Assistant Professor, Dept. of Management Studies of Pilani Campus, Pilani, India as Guest Faculty during the II sem. 2012-13 in the course Management Framework and Functions.

**Consultancy: NIL**

## B4. 15.2 Professional Body Activities

### 1. IEEE Student Branch:

- (i) A record high ever of a total of 11 teams from the IEEE Student Branch at BITS, Pilani, Dubai Campus participated in the 2013 Edition of IEEE XTREME: a 24 hour programming worldwide Programming Challenge held from 4 A M on 26<sup>th</sup> October 2013 till 4 A M on 27<sup>th</sup> October 2013 by the IEEE, the world's largest professional body. While six out of 11 BPDC teams achieved world ranks less than top 1000; its top 3 teams were also among the 3 highest ranked teams within UAE with ranks: ASCII Rangers-133, Team Heisenberg-200, and AmAyRi-294. Other 3 team rankings are: Skynet-440, CrayTitans-610, BugsInTheSystem-880.
- (ii) As part of Institute's Annual Technical Extravaganza: Technofest & Enginuity held during 3-5 December 2013, IEEE Student Branch successfully organized 2 events namely "crack the code" and "MATLAB Workshop" which was well received with a record participation and appreciated by BPDC Students for the quality of questions in the crack the code competition & technical content & cherishing hands-on experience during the MATLAB workshop.
- (iii) The Student Branch held successfully the Annual Membership drive and recruited more than 50 new IEEE SB members as part of the same during the current year.

### 2. ASME Student Branch:

- (i) Dr. M V N Sankaram, Associate Professor, Mechanical Engg., BITS Pilani, Dubai Campus, not only continued to be a member of the steering committee successively for the past several years to the prestigious Annual UAE Renewable Energy Conference: ESREC-2013 but also has been honored, in the month of December 2013, to be a prestigious member of ASME's District-J operating Board which includes members, apart from UAE Universities, also from the Universities & Industries in USA, Lebanon, South Africa, Saudi Arabia, Oman and Nigeria
- (ii) During the Gulf SPDC-2013 organized by the ASME Students' Chapter at KUSTAR Abu Dhabi from April 18th – 20th, 2013 BPDC ASME students' chapter won to the Institution several accolades as below:

Competition Name @ Gulf SPDC 2013	BPDC Secured Position	BPDC Student name(s)
Old Guard Oral	First	Deepan Kishore kumar
Presentation Competition	Second	Adarsh Venkat Raman
Student Design Competition	Third	Akash Hathiramani Arvind Somasundaram Aashman Arora Puneet Khirwar Pranav Mohan
Rapid Design challenge	Second	Radhika Kapoor Deepan Kishore Kumar Akash Hathiramani
Bridge competition	Second	Radhika Kapoor Deepan Kishore Kumar Akash Hathiramani

### 3. Microsoft Tech club:

The Dot Net club was renamed as Microsoft Tech club with the students' motivation to enable them have hands-on experience with cutting edge technologies from Microsoft. With this change in the name and motivation of the activities of the club and more than 150 students enrolled as members of the club with the office bearers: President - Uttavi Sanjay

Kumar Trivedi (2010A7PS288U), Vice president- Dev Dua (2011A7PS185U) and core member- Pooja Sharma (2010A7PS314U).

The Club organized events namely: hackathon (during October 2013), 2 Events: Inicio and Heisenberg (for school children) during Technofest 2013 in addition to conducting 5 workshops on: "Windows 8.0 mobile", "windows web application development" and the "Basics of C#" during September-November 2013. All the activities of the Microsoft Tech Club have been uploaded in face book via videos.

#### 4. Linux Users Group (LUG):

Right from the beginning of year 2013, the Linux Users group actively organized and collaborated events with other clubs and associations. The registration was free and made open to all BPDC students. All the core members took active part in Organizing Committee for ENGINUITY 2013 and TECHNOFEST 2013 involving Programming and Debugging Events. In addition Series of Presentations were held during 2013 on following topics: UBUNTU LINUX Installation and Configuration; Benefits of Open Source Software; Installation and Demonstration for INKSCAPE and GIMP; and Software Tools under LINUX.

#### B4.15.3 Center for Entrepreneurial Leadership (CEL):

At Dubai Campus, there were about 100 students enrolled as members of Center for Entrepreneurial Leadership (CEL) with 7 students on its Executive Board led by its founding President: Mr. Deepan Kishore Kumar (ID No. 2010AAPS068U and Dr. A. Srinivasa Rao, Associate Professor, Management, as the Faculty In-Charge.

The CEL at Dubai Campus was inaugurated on 8<sup>th</sup> September 2012 by Dr. Kumar Mangalam Birla, Chancellor of BITS Pilani, in the presence of several dignitaries including the Vice Chancellor, BITS Pilani (Rajasthan), India: Prof. B.N. Jain, and the Director, BITS Pilani, Dubai Campus; Prof. Dr. R. K. Mittal and Institute officials.

Table below summarizes the activities held by CEL during the Academic Year 2013:

S.No.	Date	Activity
1	18-02-2013	Interactive session on "Creativity" by Prof. Rajiv Gupta, Professor of Mechanical Engineering (Alumnus of IIT Delhi)
2	03-03-2013	lecture session on "Role of Security Exchanges – Personal Finance" by Dr. M. Selvam, Professor and Head, Department of Commerce and Financial Studies, Bharathidasan University, Tiruchirappalli
3	23-03-2013	Inauguration of TiE students' chapter event in association with BITS Pilani, Dubai Campus at the Auditorium, with signing of an MOU between TiE Dubai and BITS Pilani, Dubai Campus with an objective to promote entrepreneurship to the next generation of entrepreneurs in the Institute. The event was held on 'Dilemma of Choice' by Swami Parthasarathy from Vedanta & Corporate Academy. Swami Parthasarathy gave a lecture highlighting self-development aspects through individual intellect. Around 350 delegates (e.g., from TiE Dubai, BPD Campus (Faculty/Staff/Students) and Swamyji's followers) attended the event.
4	28-04-2013	Two of our Students, Nigel Pereira & Nikhil Pradhan cleared 1st Round of Winners of 'THE BIG START 2013' organized by Al Tamimi Investments, U.A.E.
5	17-09-2013	Interactive session on "Collaborative Processes of Institute, Students and alumni for industry readiness" by Dr. Gopal Iyengar, Director, Kirloskar Institute of Advanced Management Studies, Karnataka
6	10-10-2013	A Talk & Interactive session on "How to Prepare a Business Plan" by Mr. Binod Shankar, Entrepreneur at U.A.E.
7	10-11-2013	TEDx@BITSPILANI DUBAI CAMPUS – One day workshop organized wherein eminent speakers delivered TED talks.
8	28-11-2013	A Talk & Interactive session on "Entrepreneurship as a career option for young men and women" by Mr. Faisal Farooqui, Founder and CEO of MouthShut.com

S.No.	Date	Activity
9	09-12-2013	One team from CEL-BPD Campus has been selected for semi-finals by TiE-RICE University Business Plan Global Competition. The team won U.A.E. round and is scheduled for Asia Round at Delhi.
10	12-12-2013	Two teams from CEL-BPDC 'Mobile Bankovation' & 'Oblivion Bank Leaders' cleared two rounds in EMIRATES ISLAMIC BUSINESS INNOVATION CHALLENGE' organized by Emirates Islamic and scheduled for Final round of competitions.
11	15-12-2013	Talk by Mr. Sameer Sortur, Director of Revenue Growth & Operations@Innovation 360 accelerator

#### B4.15.4 PRACTICE SCHOOL

##### Practice School Programme

All first degree students have the option of Practice School. PS-II was conducted at 42 stations with 152 students and 40 faculty during February – June 2013 and at 41 stations with 134 students and 39 faculty during August 2013 -January 2014. PS-I was conducted at 89 stations with 325 students and 23 faculty during June - August 2013.

Categorization of PS stations is given below:

S. No.	Category of Organizations	No. of Organizations	
		PS-II	PS-I
1.	Banks & other financial Institutions.	00	00
2.	Design, Development, Consultancy and Software Organization.	22	29
3	Trading	08	04
4	Production, Manufacturing and Maintenance	24	45
5	Other	00	11
	<b>Total</b>	<b>54</b>	<b>89</b>

With the present annual PS intake of 611 students, the PS programme covers almost entire eligible student population of the Institute. The statistical details of the distribution of students and faculty at PS-I stations are given in Annexure B4-15 followed by the details of the Statistics of PS-II given in Annexure B4-16. The Growth statistics of PS-I, PS-II are given in Annexure B4-17, while facilities available at various PS-II stations are given in Annexure B4-18. The growth of PS stations is depicted in the graph 1.

Following is the breakup of students who were registered in PS-I, PS-II.

PS-I	Summer Term 2013	325
PS-II	II Semester 2011-2012	152
PS-II	I Semester 2012-2013	134
	<b>Total</b>	<b>611</b>

##### PS-II Assignments: Institute's Contribution to Industrial Development

Apart from developing skills in Professional judgement, data-handling, documentation, decision making ability etc. in students, the PS-II assignments also relate to real life problems of the host organisation. PS-II assignments listed in Annexure B4-19 were completed by the students at their respective PS-II stations during the year 2013.

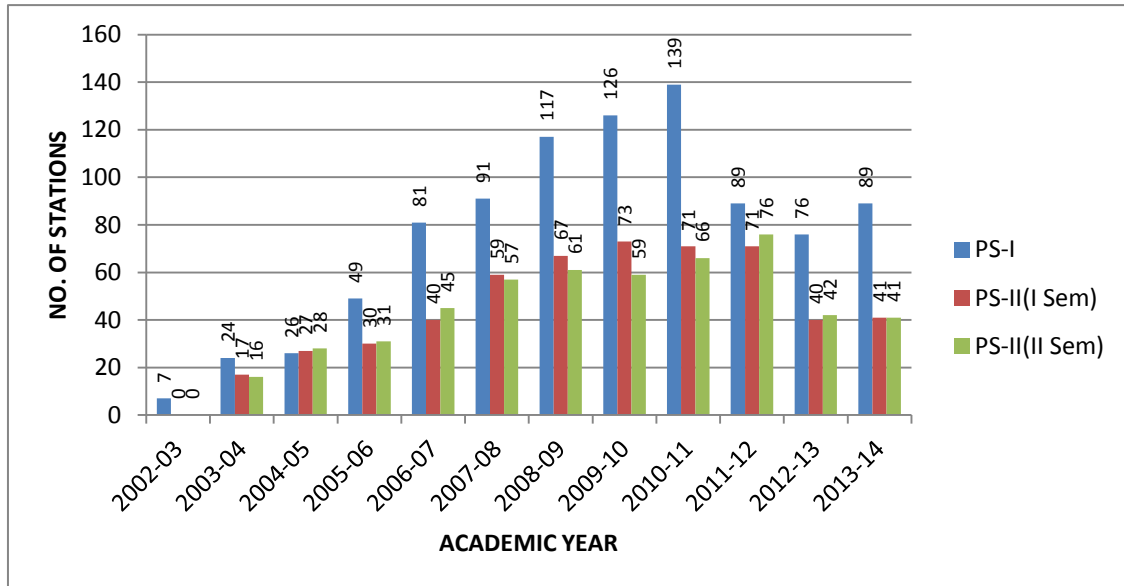
These assignments have been implemented to fulfil the ongoing production, modernization, design, development and research needs of the participating industries; thus, directly contributing to the requirements of industrial R & D.

### Stipend

In appreciation of the contribution made by our students towards the professional wellbeing of the organization, a stipend / out of pocket allowance is paid to the students by the organizations. In addition, other facilities like accommodation, subsidized lunch, transportation, insurance, TA & DA, foreign travel expenses are also provided by some of the organizations.

During the year under review, the PS activities grew further with the some new PS II stations (Table1).

**Graph 1**



**Table1 PS-II Stations Added during the year 2013**

Sl. No	PS-II Stations	Monthly stipend/out of pocket allowance in AED
1	ECS ME LLC, Dubai, UAE	2000
2	Energy Automation JLT, Dubai, UAE	1500
3	Infinique Middle East FZCo, Dubai, UAE	1000
4	Innosoft Solutions, Dubai, UAE	1000
5	Proserv Middle East, Dubai, UAE	3550
6	Redington Middle East LLC, Dubai, UAE	1000
7	Spira Power Gasket Manufacturing LLC, Dubai, UAE	1500
8	TechRobotix FZCO, Dubai, UAE	1000
9	Young and Mubeen Controls FZE, Dubai, UAE	1000
10	Kautilya Project Consultancy FZE, Ras Al Khaimah, UAE	500

11	GISTEC, Sharjah, UAE	1500
12	United Intl. Welding Material Trading LLC, Sharjah, UAE	1500

## B4.16 CENTRAL FACILITIES

### (i) Central Library

BITS Pilani, Dubai Campus Library, a gateway to knowledge resources, is located in a separate building with two floors and area of about 14,840 sq. ft. It has a contemporary design with reading halls, stacking area, faculty lounge, digital library with 22 computers, internet browsing centre with 22 computers, 50 individual study carrels, and exclusive 8 (ground and first floors) systems for OPAC. It has a seating capacity of more than 300.

The Library remains open from 7.30 AM to 10.00 PM on all working days and 10.00 AM to 10.00 PM on Saturdays. The Library is open from 7.30 AM to Midnight during comprehensive examinations. The Library is open on Fridays for 2 hours and closed on national holidays.

The Library is completely automated using the AUTOLIB Library Management Software and all the resources are bar-coded for quick and easy service to the user community. The Online Public Access Catalogue (OPAC) is accessible across the campus and users can search the resources and check their account.

The mission of the Library is: to collect, organize, preserve and provide access to the information necessary for the institute, to achieve its educational, research and service goals; to improve and enhance access to information in all forms, using innovative technology thereby having a broad based collection, to assist in meeting the needs of students, faculty and staff.

The Library renders standard services such as borrowing / lending, reference, referral services, etc. Library provides photocopy, scanning and printing facilities to the patrons.

### Acquisition Section

- a) At present, the library has a collection of around 16,000 books. The collection of the library is growing continuously on a regular basis. Around 1,000 new volumes of books were added to the existing collection during the year in major disciplines of engineering and sciences. The new titles include emerging areas like Communication Engineering, Nanotechnology, Artificial Intelligence, Biochemical Engineering, Bioinformatics, Software Engineering, Robotics, Energy Engineering, Data and Web Mining, Business and Management. The Library procures good number of Fictions and General Aptitude books such as TOEFL, GRE, SAT, IELTS. Books on Islam and Arabic are also added every year.

### E-resources

- a) The Library subscribes to "IEL Online" IEEE Xplore Digital Library which provides full text access to the world's highest quality technical database in Engineering and Technology. It contains more than 35 lakh full text documents of journals, transactions, and conference proceedings.
- b) The Library provides online access to American Society of Mechanical Engineers (ASME) database which covers 32 online journals and its archives since 2000.
- c) The Library enables an online access to International Telecommunication Union (ITU) database.
- d) The Library has digitized the question papers of all examinations since 2003 and these are available at library portal through on-campus (<http://bitslib/lib/quest.htm>) and off-campus (<http://library.bits-dubai.ac.ae/lib/quest.htm>)
- e) The Library subscribes to the following e-papers:
  1. The Times of India,
  2. The Economic Times,
  3. The Hindu.
- f) The Library holds 4000 free e books.



### Reference Section

- a) The Library procured latest editions of Encyclopedias, Dictionaries and Hand books on core disciplines of Engineering, Technology, General Sciences and General Knowledge.
- b) The Library subscribes to print version of 12 international journals, 32 magazines and 4 local newspapers.
- c) The Library has back volumes of about 325 journals which were subscribed since the inception of Dubai Campus.
- d) Library has more than 1147 CD-ROMs on engineering courses and there are 3 computer terminals exclusively meant for the accessing these.
- e) Library has more than 490 practice school and project reports submitted by students are available for reference.
- f) Library has 200 EDD notes which were prepared and published by Education Development Division (EDD) from BITS Pilani, India.
- g) The Library has separate collection of Text Books under Book Bank scheme for the benefit of the students.
- h) The Library has an MOU with the Al Ain University of Science and Technology in UAE for the mutual benefit of both the institutions.
- i) The Library also offers Inter Library Loan (ILL) facilities to the users.

### Other Services

- a) The Library has Wi-Fi facility within the library which enables the users to use their laptops for internet browsing / project / thesis work.
- b) The Library provides Selective Dissemination of Information (SDI), Current Awareness Services (CAS), Conference Alert Service and Latest arrival service to the Faculty, Staff and Students.
- c) Useful articles, news, newspapers clippings related to education are being displayed on the library notice board for the benefit of students and faculty.
- d) The Library organized a book exhibition during 3 – 5, December 2013 for the benefit of the students and faculty of the Campus.

### Facts about the Library

The library collection has grown steadily. Some of the significant statistical data about the library are as follows:

Sl. No.	Items	Total
1	Number of books	16,000
2	Average number of books circulated per day	100
3	Books added during last academic year (1 <sup>st</sup> Sep 2012- 31 <sup>st</sup> Aug 2013)	729
4	Number of print periodicals subscribed	45
5	Online Databases made available on library site	3
6	CD-ROM collection	1147
7	Total no of back volumes of journals	325

**Library Staff Achievements:**

1. K N Sheshadri submitted his PhD thesis titled “Networking of Technical Libraries in United Arab Emirates: A Consortium Model” to Mangalore University, Karnataka, India and it is under process of evaluation.
2. R Sivakumar delivered a Guest Lecture on “Future Librarianship” on 6<sup>th</sup> August 2013 at Department of Library and Information Science, Bishop Heber College, Tiruchirapalli, Tamil Nadu, India.
3. R.Sivakumar and K. Jayachandran attended the seminar on “E-Textbook Adoption & Integration in Education” organized by Pan World Education LLC held at JW Marriott, Marquis, Dubai on Sunday, 6<sup>th</sup> October 2013.

**(ii) Infrastructure and Facilities**

The campus has world-class, state-of-the-art facilities with well-equipped labs and workshops, separate Library block, Academic Block, Sports Complex, Canteen, Clinic, Gymnasium, etc. The Campus has hostel facility for boy and girl students with single occupancy, centrally air-conditioned furnished rooms and a full-fledged mess which serves both vegetarian and non-vegetarian food. The underground LPG storage tank of 2500Litres capacity was installed to supply LPG supply to the kitchens of the Hostel Mess and the Institute canteen. This facility was commissioned on 16 November 2012 and therefore the usage of LPG cylinders was discontinued in both places. This was done to meet the requirements of Dubai Civil Defense Authorities and to improve the operational economy.

**(iii) Laboratories**

The Institution’s laboratories are of international standards and they have grown from 2 to 30 in the last 11 years, each well-equipped with the latest equipment and machines. The following table gives the discipline wise details of various laboratories:

S. No	Discipline	Laboratory
1.	Biology	Biology
2.	Biotechnology	Instrumental Methods of Analysis
3.		Genetic Engineering
4.		Microbiology
5.		Industrial Microbiology
6.	Chemical Engineering	Chemical Engineering I
7.		Chemical Engineering II
8.	Chemistry	Chemistry
9.	Computer Science	Computer Programming
10.		Object Oriented Programming
11.		Computer Architectures
12.		Microprocessors Programming & Interfacing
13.	Electrical and Electronics	Electro Mechanical Energy Conversion
14.		Digital Electronics And Computer Organization
15.		Analog Electronics

S. No	Discipline	Laboratory
16.		Communication Systems
17.		Digital Signal Processing
18.		Power Electronics
19.		Introduction to MEMS
20.	Electronics and Instrumentation	Process Control
21.		Electronic Instruments & Instrumentation Technology
22.		Virtual Instrumentation
23.	Mechanical	Workshop Practice
24.		Prime Movers And Fluid Machines
25.		Engineering Graphics
26.		Production Techniques
27.		Computer Aided Design
28.		Heat Transfer
29.		Mechanical Engineering
30.	Physics	Physics

**(iv) Engineering Services**

**(a) Communication and allied facilities**

The following facilities are available for the benefit of students and staff:

**1. Telephones**

The Panasonic EPABX System TDA 600 is equipped with 640 Extensions and maximum 64 trunk lines, among them 140 extensions and 20 trunk lines are in use and Dialguard V.2.0 (Call Logging & Accounting Software) is being used to monitor and control telephone calls based on extensions.

**2. Fax**

Separate Fax Machines are available in Boys Hostel and Girls Hostels. Fax Machines are also available in the Director's Office, Admissions, Administration, Accounts and Facilities Department.

**3. Internet and Email**

Presently the institute has 30 Mbps shared internet leased line connectivity through DU (Service provider) for Email and Internet Facilities. Facilities available through this are Electronic Mail, Remote Login and Internet Browsing. Email and Internet Browsing is made available to all the Faculty and Staff. Admission data has been made available on internet.

#### 4. Campus Network

The computing facilities across the Institute are given Annexure B4-20. The central facilities in the server room are

S.No.	Hardware	QTY	SOFTWARE
	Equipment		
1	Intel Xeon Quad Core E5310 1.60Ghz/1066 Mhz,8MB,IBM 146Gb SFF Non Hot Swap 10K SAS HDD,2Gb(2X1Gb) PC2-5300 667 MHz ECC Chipkill DDR2,Qlogic 4Gb SFF Fibre Channel Expansion Card for IBM eServer Blade Center	2	Windows Server 2003 R2-Enterprise x64 edition, Domain Controller, Windows Server 2008 – Web Server Backup
2	Intel Xeon Quad Core E5310 1.60Ghz/1066 Mhz,8MB L2,2X1GB Chipkill, O/Bay SAS,2Gb(2X2Gb) PC2-5300 667 MHz ECC Chipkill DDR2,IBM 146Gb SFF Non Hot Swap 10K SAS HDD FBDIMM,4gb SFF Fibre Channel Expansion card for IBM eServer Bladecenter	3	Windows Server 2003 R2-Enterprise x64 edition, Microsoft Exchange 2007 (HT,CA and MB)
3	Intel Xeon Quad Core E5420 80W 2.50GHz/133Mhz/12Mb L2,2X1Gb chk, O/Bay SAS,2Gb(2X1Gb) PC2-5300 667 MHz ECC Chipkill DDR2 FBDIMM,IBM 146Gb SFF Non Hot Swap 10K SAS HDD	3	Windows Server 2003 R2-Enterprise x64 –Spare proxy, Windows Server 2008 Domain Controller, Windows Server 2008 –Exchange 2010
4	Intel Xeon Quad Core E5310 1.60Ghz/1066 Mhz,8MB,IBM 146Gb SFF Non Hot Swap 10K SAS HDD,2Gb(2X1Gb) PC2-5300 667 MHz ECC Chipkill DDR2,Qlogic 4Gb SFF Fibre Channel Expansion Card for IBM eServer Blade Center	1	Windows Server 2008 edition, DNS,DHCP
5	Cyberoam CR500ia	1	Universal Threat Monitoring Software
6	Intel Xeon Quad Core E5310 1.60Ghz/1066 Mhz,8MB,IBM 146Gb SFF Non Hot Swap 10K SAS HDD,2Gb(2X1Gb) PC2-5300 667 MHz ECC Chipkill DDR2,Qlogic 4Gb SFF Fibre Channel Expansion Card for IBM eServer Blade Center	1	Windows Server 2003 R2-Enterprise x64 edition, Mathworks-Matlab
7	3.06Ghz P4Intel Xeon Processor, 2 GB RAM and 80Gb Hard disk	1	Windows Server 2003-Standard Edition, AutoCAD
8	3.05GhzP4 Intel Xeon Processor,1Gb RAM and 80Gb Hard disk	1	Windows Server 2003-Standard Edition, WEB SERVER
9	3.6GhzP4 Intel Processor, 1.72Gb RAM and 80Gb Hard disk	1	Windows Server 2003-Standard Edition, Catia
10	2.40Ghz P4 Intel Xeon Processor, 1Gb RAM and 80Gb Hard disk	1	Windows Server 2003-Standard Edition, Tally
11	Intel Core 2Ghz,1GB Ram,160Gb HDD	2	Windows Server-2003-Enterprise Edition, App Test & Student Projects
12	Panasonic TDA 620	3	
13	Panasonic TDA 600	1	
14	Panasonic TVM 200	1	
15	TALLY SERVER-ACER, Intel Core 2, 2GB, 1 GB RAM, 150 GB Hard Disk	1	Windows Server 2003-Standard, Tally 9.0

#### **B4.17 PROCUREMENT AND MAINTENANCE**

Facility Management Department is in-charge of Procurement, Maintenance and modification of the infrastructure and facilities in the campus. Procurement actions are initiated by the FM Department after the approval by the Purchase Committee, with respect to new equipment, spares, consumables, repairs and modifications of the existing equipments. Any modifications to the infrastructure are taken up by FM Department as per the approval of the Director, BITS Pilani, Dubai Campus.

During the year 2013, the following jobs of up-gradation / repairs of the existing facilities were done.

1. Ten solar powered street light units were installed on the parking area near gate number-1.
2. Additional Common rooms were made by merging three rooms in Hostel A, B, D & G Block.
3. Rooms, Dining area, Staircase and corridor were painted in C Block Hostel and some rooms and corridor areas of A, B and G block during the summer vacation.
4. Three LED 50" TVs with dish connection and Music System were put in Boys, Girls Hostel Dining areas and Four 40" LED TV were replaced with Existing TV in TV Room of A, B, D & G blocks.
5. One extra Microwave was put in each of the A, B, C and D Blocks.
6. New Split ACs was put in Hostel pump room and Academic Block Pump Room.
7. Repair of 10000 Gallon FRP tank (TSE water storage tank).
8. Up gradation of Chemical Engineering lab.
9. Up gradation of Workshop lab.
10. Additional FCU was put in Auditorium.
11. Construction work of Separate Stair Case for first floor Canteen Building was started.
12. All Day Mini Mart Grocery shop was open to facilitate the students and faculty.
13. Waste papers were donated to Emirates Environmental Group for Recycling.
14. Shifted Cyberoam from server room to MDF room in Mechanical block.
15. New camera was installed on third floor (near room # 335).
16. Old Photocopier machines were replaced as per the new contract in all 6 locations.

#### **B4.18 EQUIPMENTS AND ACCESSORIES**

A large number of equipments and accessories were purchased for BITS Pilani, Dubai Campus. The list of major equipments is included in the Annexure B4-21.

#### **B4.19 STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVALS**

##### **Student Council**

President	Ravi Prithivi
Vice President	Mohamed Atyab
General Secretary	Swathi Sampath
Ex Officio Member	

##### **Day Scholar Representatives**

1 <sup>st</sup> Year	Rohit Raveendran
2 <sup>nd</sup> Year	Pavit Ramesh
3 <sup>rd</sup> Year	Faseeh Yooseff
4 <sup>th</sup> Year	Jacquelline Antony P

**Hostel Committee**

Block A	Akshansh Chaudhary
Block B	Amritansh Varshey
Block C	Salman Mohyaddin
Block D	Ansh Vaghela
Block G	Saumya Awasthi

**Clubs**

Quiz (FLUMMOX'D)	Jonathan Justin
Dance	Munzer Mustafa
Art (ARTEX)	Vishishta Bothara
Social & Environment (MAD AND PEACE)	Disha Sharma
Drama (PARIBHASHA)	Pirzan Turel
Public Speaking & Literary Club (EXPRESSIONS)	Rahul Philip
Photography (REFLEXIONS)	Kamalesh keserker
Sports	Manish Bansal
Music	Sushrut Shastri
Astronomy	Abhimanyu Sarin

**Student Activities**

BITS Pilani, Dubai Campus encourages student to meet each other in a friendly atmosphere to conduct professional/scientific activities such as institute-wide technical festival, Technofest and also to participate in scientific and professional bodies of international repute such as Student Branch of IEEE, SAE, ASHRAE, Dot-Net, Linux Users Group. There are 9 clubs namely Dance Club, Arts Club, Public Speaking & Literary Club, Music Club, Drama Club, Astronomy Club, Social & Environment's Club, Photography Club and Sports Club. The following were some of the important activities held during the year 2013.

1. **Social & Environment Club:** The Social and Environmental Club organized several events in the year 2013. The first was Women's Day Celebration. The event was held on 10<sup>th</sup> March 2013 to create a sense of awareness among the students, about the issues women face these days in the world and to appreciate their contributions to the society. A Ballroom Workshop for the students was organized by the club for raising funds from 14<sup>th</sup> March 2013. Earth day was held on 22<sup>nd</sup> April 2013 to raise awareness about the environment and the measures to be taken to protect it. It encouraged students to reduce pollutants and recycle more. Many competitions like the slogan writing, Best out of waste and also a car wash was organized to create awareness about how precious water is and is not to be wasted. On 2<sup>nd</sup> May 2013, a Masquerade Ball was held. It was a fund raiser held for the Help Age India. Two Blood Donation Camps were organized by the club, one on 9<sup>th</sup> May 2013 and the other on 18<sup>th</sup> November 2013 in the campus. A Dandiya night was held on 3<sup>rd</sup> October 2013. It was one among the fund raisers the club organized. A Breast cancer awareness program was also conducted by the club.
2. **The Public Speaking and Literary Club:** The members of the Public Speaking and Literary Club participated in the Skyline Interuniversity debate competition and the American University of Dubai Interuniversity debate competition in March 2013. The club organized three events during JASHN 2013 and three events during Enginuity 2013 and seven universities from across the UAE participated in these events. A workshop was also held to help improve the quality of public speakers in the Institute. The club further organized intra college activities such as the Inter year debate, the Writers fest and the non pro debating league between October and December 2013.
3. **Dance Club:** The members of Dance Club took part in Rendezvous 2013 which was an initiative by Big idea and sponsored by Emax to hunt for talents from colleges across UAE. This event which carried the slogan of being the 'Biggest Inter College Festival' was held on 22<sup>nd</sup> March 2013 at the Knowledge Village auditorium and consisted of events such as group dance, solo dance, rock show and fashion show. It was hosted by RJ Abhishek and RJ Yamini and the whole event was captured by Zee TV. Around 15 colleges participated in this huge event, with participating teams coming from as

- far as Ras Al Khaimah and Abu Dhabi. The Bits Dubai dance club took part in the group dance category and secured the first place, beating several other talented college teams. The team of seven students presented a dance fusion of classical, contemporary, Bollywood and Bhangra. The judges were amazed by the group's ability to bring together different dance forms and portrayed it all in one stage. This winning team from BPDC also gets to perform in a movie promotion. The dance club also performed in the inaugural functions of JASHN, Ethnic Day and fresher's ice breakers as well.
4. **Drama Club:** The club Paribhasha hosted 4 events this year. During JASHN 2013 Tribune, a 25 minute stage play was organized. 5 universities participated in this event and the winner was Herriot Watt University. During SPARKS 2013, events like Impulse, Histrionics and Street play were organized.
  5. **Music Club:** The Music club organized the following events as a part of JASHN 2013 and Sparks 2013 as well: Eastern and Western rounds of Solo and Duet singing, Instrumental Music and Battle of Bands.
  6. **Astronomy Club** - Star gazing activity was conducted in November 2013. Club organized 4 stargazing events, the Comet Panstars Observation night on 7<sup>th</sup> March 2013, the Perseids meteor shower on 12<sup>th</sup> August 2013 (for select groups), the Leonids meteor shower on 17<sup>th</sup> November 2013 and the most recent, Comet Ison observation night on 25<sup>th</sup> November 2013. All of these events have been organized in collaboration with The Dr. Hasan Al Hariri, President, Dubai Astronomy Group at Zubair Camp (Ajman). Around 35 to 100 students attended these events. The Club also organized a space quiz "Supernova 2.0", an event for Technofest 2013.
  7. **BITS Sports Festival 2013:** The 11<sup>th</sup> BITS Sports Festival (BSF) at BITS Pilani, Dubai Campus was inaugurated by Mr. Rajesh Ramadurai, Vice President-MENA. He is an alumnus and a fit sportsperson himself. The inaugural ceremony began with a March past by all the Sports Teams. The captains of the teams led them amongst the cheers of the large audience gathered and the Director, BITS Pilani, Dubai Campus and Deans. This was followed by the ceremonial lighting of the torch passed on by Sports Club President, Manish Bhansal to Mr. Rajesh who very cheerfully lit it up. Then the BITS flag was hoisted by Mrs. Abha Mittal and BSF 2013 was declared open. The oath was rendered by Manish and all the teams took the oath in the true spirit of Sportsmanship. Dr. R. K. Mittal, the Director, then shared his words of wisdom on the importance of sports in improving one's fitness and that everyone should be involved in any form of sporting activities to ensure good health. Then Mr. Rajesh enlightened the audience about how BITS played a huge role in shaping him into the person he is today and mentioned that he himself was a badminton and volleyball player. The celebrations were concluded with a Brilliant flash mob which enthralled the gathering by grooving to the latest tunes and got everyone's feet tapping. The participating universities included the American University of Sharjah, University of Wollongong, American University in RAK , Dubai Men's College, Al Ghurair University, Gulf Medical University Ajman, City College Ajman, Skyline University, Sharjah, Amity University in Dubai Emirates aviation College, University Of Sharjah, Bolton University, Canadian University Dubai, American College Dubai, SZABIST, BIT RANCHI, Herriot Watt University, RAKMHSU, Ajman University, Middlesex University and BITS Pilani, Dubai Campus. Mr. Madan Lal (Former Indian Cricketer and Former Indian Cricket Team Coach) was the Chief Guest for the Prize distribution ceremony. The Director of BITS Pilani, Dubai Campus, Prof. Dr. R. K. Mittal, then spoke a few words congratulating the students on their active participation and achievements. Mr. Madan Lal, humbled besides being such a great cricketer, excitedly told the students that he found it easier to play tournaments than speak on stage and that his love for the sport exceeds all in his life. The young sports men and women thoroughly enjoyed his speech. Mr. Madan Lal handed over the trophies and medals to all the winners. The athletics overall Championship and BSF 2013 Overall championship trophy were won BITS Pilani, Dubai Campus.
  8. **Ethnic Day:** Ethnic Day is organized every year to celebrate the Foundation Day of BITS Pilani, Dubai Campus. This annual event was held on 7<sup>th</sup> November 2013 at the Campus. Students dressed up in Ethnic Wear and several activities were held throughout the day. Food Stalls were put up by the students. There were dance performances by members of the Dance club and faculty as well. Several On-the-Spot competitions were conducted that were open to all students and prizes were given to the winners. Mr. Ethnic and Ms. Ethnic were announced after a few rounds of contest. The Student Council organized a fun event called Beg Borrow Steal, in which the participants had to gather the list of items given to them within a set frame of time.
  9. **SPARKS 2013:** Sparks 2013, an intra-college event was held during 23-24 October, 2013. The dance competition for the fest was divided into 3 categories: Western Group Dance, Eastern Group Dance and Dancing Doubles. There were 17 teams for the eastern category, 4 for western and 11 for dancing doubles. There were many brilliant performances that left the audience awestruck. The group dances were judged by Richard and Glen, who are instructors and performers at Step and Groove, a

renowned dance institute in Dubai, UAE. The Dancing Doubles was judged by the alumnus, Purab Dilip Bhatia. All the judges were amazed at the splendid performances of the students and the hard work, effort and time put in to making this event a success was both prominent and commendable. There were drama events like Impulse, Histrionics and Street Play. Music events like Eastern and Western rounds of Solo and Duet singing, Instrumental Music and Battle of Bands.

10. **JASHN 2013:** An Inter college cultural festival 'JASHN 2013' was held during 23-25 April 2013. The various clubs of BITS Pilani, Dubai Campus organized more than 60 different events including dance, drama, music, art events to name a few. Food and games stalls were also set up by the students. EMAX sponsored the event and provided gift vouchers to the winners of the events. Participants included students from American University of Sharjah, American University of Dubai, BITRAK, Manipal University, Middlesex University, and Canadian University of Dubai, Amity University, IMT and Herriot Watt University. The prize distribution ceremony was held in the presence of the Director Prof. Dr. R. K. Mittal. BITS Pilani, Dubai Campus were crowned overall champions of the inter college cultural festival for the year 2013.
11. **Hostel Day Celebrations:** Hostel Day "Recharge" was celebrated in the Dubai Campus with a lot of fanfare. Fun activities like Antakshri, Tambola, Kho Kho, Bathroom singing and many outdoor sports were organized. Indoor activities such as chess, carom, badminton and table tennis were organized as well. There was a huge response and participation involved, hostel students, wardens and the staff. A grand Buffet dinner was organized after the closing ceremony where lot of prizes and gifts were given away to the winners and the hostel staff. The hostel students also organized a small get together for Diwali on 5<sup>th</sup> November 2013. Diwali Puja was conducted and followed by a dance night. Ms. Abha Mittal was the Chief Guest of the celebrations.
12. **Farewell Party:** The 'DIROS Tea Party', a farewell party to the passing batch was organized by the Alumni Cell on 24<sup>th</sup> May 2013. Around 600 students attended the farewell where 500 passing out students gathered. A lot of fun games were arranged and a gold ring went to the lucky winner. A 15 kg cake was cut by the students. The farewell ended with a common dinner and on an emotional note.
13. **Welcome Party:** The Fresher's Welcome Party was held on 20<sup>th</sup> September 2013. It was organized by the senior students of the college to welcome the new batch of students of 2013. Around 800 students along with the faculty attended the function. There were Music and Dance Events held followed by refreshments. A tree was planted by freshers and seniors. This batch tree plantation was the first of its kind in the campus. The seniors and Fresher's literally broke ice blocks to pass a message of friendliness.

## Achievements and Commendations

### Awards and Achievements

1. Mr. Anomitra Banerjee, Secretary of the BPDC ASME Student Chapter received a stipend of USD 2000 for attending & presenting his contribution entitled "Groundwater remediation through Nanoscale Iron Particles" at the ASME Conference held during September 8-12, 2013 at Brussels, Belgium.
2. The contribution by Mr. Nilay Kumar Kiran Sangani, titled "Social Media Security Strategy Architecture for Online Reputation Management", which was presented at the International Conference Innovative Technologies 2013 (IN-TECH 2013) held during September 10-13, 2013 at Budapest, Hungary got adjudged as the Best Paper in the category "Computer Science".
3. During ESREC 2013 organized by UAE University, Al Ain, a prestigious UAE annual renewable energy conference held on 4 May, 2013, the project titled "Conversion of waste vegetable oil into Biodiesel" by Ben Anthony, Jerin Philip, Samson Varghese and Deol Adhithia won the Best idea prize in prototype competition.
4. Deepan Kishore Kumar got First place in Old Guard Technical Oral Presentation Competition at ASME Gulf Student Professional Development Conference (SPDC) at Beirut, Lebanon. He received cash price of \$500 and travel expenses to participate in the final round of Old Guard Technical Oral Presentation Competition at ASME International Mechanical Engineering Congress and Exposition, San Diego, CA.
5. Adarsh Venkataraman Ganesan got Second place in Old Guard Technical Oral Presentation Competition at ASME Student Professional Development Conference (SPDC) District J (Title: Design and Simulation of MEMS based Immunosensor for Ebola Virus Detection).
6. Arihant Sogani won the Scholarship Award worth \$1000/- conducted by Upsilon Pi Epsilon (UPE), International Honor Society for the Computing and Information Disciplines in September 2013.



7. Deepan Kishore Kumar secured Rank 1 for the project "A Novel Eye Pad for characterising Nystagmus" under Natural and Health Science Category at the First United Arab Emirates Undergraduate Student Research Competition (UGSRC) under the patronage of H.H. Sheikha Latifa Bint Hamdan Bin Zayed Al Nahayan. The supervisor for this project is Prof. S. Swaminathan. Deepan got cash Prize of AED 10000/-.

## SCHOLARSHIPS

### Financial Assistance to Students

549 students received financial assistance of AED 34,07,323/- under different categories for the Academic Year 2012-13, the details of which are given below:

S. No.	Particulars	Students Nos.	Amount (in AED)
1	Institute Merit Scholarship	457	23,33,563
2	Higher Degree and Doctoral Scholarship	45	5,76,010
3	Need-based Scholarship (Physically challenged, Bereaved family discount)	3	35,625
4	Others (Staff, Siblings, Sports, Special Concessions)	44	4,62,125
	Total	<b>549</b>	<b>34,07,323</b>

### EARN WHILE YOU LEARN

10 students worked as Professional Assistants in the second semester 2012-13 and 51 students in the first semester of 2013-14. They participated in various academic activities like assistance in labs, software and other developmental work. This gave them an opportunity of independent thinking and developing a sense of responsibility. The programme is not linked with any academic credit but the participants were paid honorarium for their services and certificates from the Director, Dubai Campus.

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Annexure B4-1

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**SENIOR OFFICERS OF THE INSTITUTE****DIRECTOR**

Dr. R. K. Mittal

**DEANS**

<u>DIVISION</u>	<u>NAME</u>
1. Academic and Registration	Dr. T G Thomas
2. Research and Consultancy	Dr. G Vijaya
3. Student Welfare	Dr. Priti Bajpayee
4. Instructions	Dr. D J Shariff

**REGISTRAR**

Dr. K Kumar

**HEAD OF THE DEPARTMENTS**

<u>DEPARTMENT</u>	<u>NAME</u>
1. Chemical	Dr. B B Gulyani
2. Electrical and Electronics	Dr. R Mary Lourde
3. Mechanical	Dr. C Perisamy
4. Computer Science	Dr. S Vadivel
5. Electrical and Instrumentation	Dr. D V Prasad
6. Biotechnology	Dr. Neeru Sood
7. Mathematics and Science	Dr. R Roop Kumar
8. Humanities and Management	Dr. Shazi Shah Jabeen

**INCHARGES**

1. Laboratories	Dr. A R Abdul Rajak
2. Admissions and Academic Registration and Grading	Dr. A Somasundaram
3. Practice School and Placement	Dr. B Muralidharan
4. Facilities Management	Dr. K K Singh

**HOSTEL WARDENS**

<u>NAME</u>	<u>NAME</u>
Chief Warden	Dr. Miller Jothi
<u>BLOCK</u>	
A	Mr. N A Venkatesh
B	Mr. Harold Franklin
C	Dr. Miller Jothi
D	Mr. Anuj Kumar
G	Dr. S Karthiyayini

Annexure B4-2

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**DETAILS OF THE ADMISSIONS MADE DURING THE YEAR 2013****I. First Semester 2013-2014****Admission to Integrated First Degree Programmes****B. E. (Hons.)**

Biotechnology	: 14 (12)
Chemical Engineering	: 25 (13)
Electrical and Electronics Engineering	: 47 (19)
Mechanical Engineering	: 106 (05)
Electronics and Instrumentation Engineering	: 13 (02)
Computer Science	: 108 (34)
Electronics and Communication Engineering	: 65 (29)

**Admission to Higher Degree Programmes** : 00 (00)

**Admission to Ph. D. Programme** : 07 (06)

**TOTAL** : 385 (120)

**II. Second Semester 2012-2013****Admission to Integrated First Degree Programmes****B. E. (Hons.)**

Electronics and Communication Engineering : 01 (01)

**Admission to Higher Degree Programmes****M. E.**

Microelectronics	: 17 (08)
Design Engineering	: 06 (00)
Software Systems	: 11 (02)
Biotechnology	: 03 (02)
M.B.A	: 05 (01)

**Admission to Ph. D. Programme** : 02 (01)

**TOTAL** : 45 (15)

**SUMMARY**

	II Semester 2012-2013	I Semester 2013-2014
Integrated First degree Programmes	01 (01)	378 (114)
Higher Degree Programmes	42 (13)	00 ( 00)
Ph. D.	02 (01)	07 ( 06)
<b>Total</b>	<u>45 (15)</u>	<u>385 (120)</u>

Annexure B4-3

(1 page)

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**STATEMENT SHOWING THE NUMBER OF CANDIDATE WHO HAVE BEEN PERMITTED IN THE ACDEMIC YEAR 2013-2014 TO PURSUE A VARIOUS DUAL DEGREE PROGRAMMES UNDER VARIOUS PRIORITIES**

Programmes* From ↓ To →	A9	A1	TOTAL
A1	1	-	1
A4	-	1	1
TOTAL	1	1	2

\*Legend :

A1 : B.E. (Hons.) (Chemical) (with Practice School)

A4 : B.E. (Hons.) (Mechanical) (with Practice School)

A9 : B.E. (Hons.) (Biotechnology) (with Practice School)

Annexure B4-4

(1 Page)

Ref. AR 2013, Page No. B4-7

**NUMBER OF STUDENTS REGISTERED IN FIRST SEMESTER 2013 - 2014**

PROGRAMME	Year of Admission					Total
	2009 and earlier	2010	2011	2012	2013	
<b>A. Integrated First Degree Programmes</b>						
<b>B.E. (Hons.)</b>						
CHE	1 (0)	15 (6)	20 (6)	27 (15)	25 (13)	88 (40)
EEE	4 (0)	34 (12)	38 (12)	49 (19)	47 (19)	172 (62)
MECH	3 (0)	88 (6)	112 (4)	103 (4)	106 (5)	412 (19)
CS	9 (2)	69 (28)	76 (25)	101 (40)	107 (34)	362 (129)
EIE	2 (0)	8 (4)	9 (5)	6 (5)	13 (2)	38 (16)
BIO	-	10 (7)	14 (12)	16 (14)	14 (12)	54 (45)
ECE	4 (0)	73 (33)	82 (39)	72 (33)	65 (29)	296 (134)
<b>Sub Total</b>	23 (2)	297 (96)	351 (103)	374 (130)	377 (114)	1422 (445)
<b>B. Higher Degree Programmes</b>						
<b>M.E.</b>						
Software Systems	-	-	8 (2)	11 (2)	-	19 (4)
Microelectronics	-	-	3 (0)	17 (8)	-	20 (8)
Biotechnology	-	-	5 (4)	3 (2)	-	8 (6)
Design Engineering	-	-	10 (0)	4 (0)	-	14 (0)
Master of Business Administration	-	-	9 (1)	4 (1)	-	13 (2)
<b>Sub Total</b>	4 (4)	1 (0)	38 (9)	44 (16)	7 (6)	94 (35)
<b>Ph.D.</b>	4 (4)	1 (0)	3 (2)	5 (3)	7 (6)	20 (15)
<b>Total (On Campus)</b>	27 (6)	298 (96)	389 (112)	418 (146)	384 (120)	1516 (480)

Number of female students is given in brackets.

Annexure B4-5

(1 Page)

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**STATEMENT OF DEGREES AWARDED**

Degrees	No. of degrees	
	72 <sup>nd</sup> Award (20 <sup>th</sup> March 2013)	73 <sup>rd</sup> Award (19 <sup>th</sup> July 2013)
<b>B.E. (Hons.)</b>		
Chemical	0	3( 1)
Chemical (with PS)	0	10( 8)
Electrical & Electronics	0	2( 0)
Electrical & Electronics (with PS)	5(0)	38(13)
Computer Science	5(0)	3( 1)
Computer Science (with PS)	5(0)	51(35)
Electronics & Instrumentation	1(0)	1( 0)
Electronics & Instrumentation (with PS)	0	11( 7)
Mechanical	0	4( 0)
Mechanical (with PS)	2(0)	80( 2)
Biotechnology	0	2( 1)
Biotechnology (with PS)	0	7( 7)
Electronics & Communication	3(1)	3( 1)
Electronics & Communication (with PS)	5(2)	80(27)
<b>Sub Total</b>	<b>26(3)</b>	<b>309(103)</b>
<b>Higher Degree</b>		
M.E. (Software Systems)	06 (02)	0
M.E. (Microelectronics)	06 (03)	0
M.E. (Design Engineering)	05 (0)	0
Master of Business Administration	10 (2)	01 (0)
<b>Sub Total</b>	<b>27 (7)</b>	<b>01 (0)</b>
<b>Total</b>	<b>53(10)</b>	<b>310 (103)</b>

**SUMMARY**

	72 <sup>nd</sup> Award (20 <sup>th</sup> March 2013)	73 <sup>rd</sup> Award (19 <sup>th</sup> July 2013)	Total
<b>Integrated First Degrees</b>	26( 3)	309 (103)	335 (106)
<b>Higher Degree</b>	27( 7)	1 ( 0)	28 ( 7)
<b>Total</b>	53 (10)	310 (103)	363 (113)

Annexure B4-6

(2 Pages)

Ref. AR 2013, Page No. B4-8

**72<sup>nd</sup> AWARD OF DEGREES APPROVED BY THE 66<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS**

<b>Programme</b>	<b>Dist.</b>	<b>I</b>	<b>II</b>	<b>Total</b>
B.E. (Hons.) (Chemical)	0	0	0	0
B.E. (Hons.) (Chemical) (with Practice School)	0	0	0	0
B.E. (Hons.) (Mechanical)	0	0	0	0
B.E. (Hons.) (Mechanical) (with Practice School)	0	0	2	2
B.E. (Hons.) (Computer Science)	0	3	2	5
B.E. (Hons.) (Computer Science) (with Practice School)	0	0	5	5
B.E. (Hons.) (Biotechnology)	0	0	0	0
B.E. (Hons.) (Biotechnology)(with Practice School)	0	0	0	0
B.E. (Hons.) (Electronics and Instrumentation)	0	0	1	1
B.E. (Hons.) (Electronics and Instrumentation) (with Practice School)	0	0	0	0
B.E. (Hons.) (Electrical and Electronics)	0	0	0	0
B.E. (Hons.) (Electrical and Electronics) (with Practice School)	0	0	5	5
B.E. (Hons.) (Electronics & Communication Engineering)	0	1	2	3(1)
B.E. (Hons.) (Electronics & Communication Engineering) (with Practice School)	0	0	5	5(2)
<b>Sub Total</b>	0	4	22	26(3)
M.E. (Software Systems)				6(2)
M.E. (Microelectronics)				6(3)
M.E. (Design Engineering)				5(0)
Master of Business Administration				10(2)
<b>Sub Total</b>				27(7)
<b>Total</b>				53(10)

Number of female students is given in brackets.



### 73<sup>rd</sup> AWARD OF DEGREES APPROVED BY THE 66<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS

Programme	Dist.	I	II	Total
B.E. (Hons.) (Chemical)	1	1	1	3(1)
B.E. (Hons.) (Chemical) (with Practice School)	0	6	4	10(8)
B.E. (Hons.) (Electrical and Electronics)	1	0	1	2
B.E. (Hons.) (Electrical and Electronics) (with Practice School)	5	16	17	38(13)
B.E. (Hons.) (Mechanical)	0	4	0	4
B.E. (Hons.) (Mechanical) (with Practice School)	5	38	37	80(2)
B.E. (Hons.) (Computer Science)	1	1	1	3(1)
B.E. (Hons.) (Computer Science) (with Practice School)	6	33	12	51(35)
B.E. (Hons.) (Electronics and Instrumentation)	0	1	0	1
B.E. (Hons.) (Electronics and Instrumentation) (with Practice School)	1	8	2	11(7)
B.E. (Hons.) (Biotechnology)	1	1	0	2(1)
B.E. (Hons.) (Biotechnology) (with Practice School)	3	4	0	7(7)
B.E. (Hons.) (Electronics and Communication)	0	1	2	3(1)
B.E. (Hons.) (Electronics and Communication) (with Practice School)	11	37	32	80(27)
M.Sc. (Tech.) (Engineering Technology)	1	9	4	14
<b>Sub-Total</b>	<b>36</b>	<b>160</b>	<b>113</b>	<b>309(103)</b>
Master of Business Administration				1
<b>Total</b>	<b>72</b>	<b>320</b>	<b>226</b>	<b>310(103)</b>

Number of female students is given in brackets.

Annexure B4-7

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### 74<sup>th</sup> AWARD OF DEGREES APPROVED BY THE 74<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS

Programme	No. of Degrees	Distinction	First	Second
B.E.(Hons.)(Electrical and Electronics)	1( 0)	0	0	1
B.E.(Hons.)(Electrical and Electronics)(with Practice School)	2( 0)	0	0	2
B.E.(Hons.)(Computer Science)(with Practice School)	6( 1)	0	3	3
B.E.(Hons.)(Electronics and Instrumentation)	1( 0)	0	0	1
B.E.(Hons.)(Electronics & Communication Engineering) (with Practice School)	3( 0)	0	0	3
<b>Sub-Total</b>	<b>13( 1)</b>	<b>0</b>	<b>3</b>	<b>10</b>
M.E.(Software Systems)	8( 2)			
M.E.(Microelectronics)	3( 0)			
M.E.(Biotechnology)	5( 4)			
M.E.(Design Engineering)	9( 0)			
Master of Business Administration	9( 1)			
<b>Sub-Total</b>	<b>34( 7)</b>			
Ph.D.	1( 1)			
<b>TOTAL</b>	<b>48( 9)</b>			

Note: Numbers in brackets indicate total females

Annexure B4-8

(2 pages)

Ref. AR 2013, Page No. B4-9

**LIST OF ORGANISATIONS WHICH CONDUCTED CAMPUS INTERVIEWS**

S.No.	NAME OF ORGANISATION	NUMBER OF STUDENTS		DISCIPLINE
		INTERVIEWED	SELECTED	
1.	Al Abbass Group, Dubai, UAE	95	8	ECE, CS, MECH
2.	Al Faisal Jassim Trading LLC, Dubai, UAE	7	2	MECH
3.	Aptec Gulf, Dubai, UAE	1	1	ECE
4.	ASP Access Floors LLC, Dubai, UAE	24	1	MECH
5.	Azbil Corporation, Dubai, UAE	2	2	EEE, MECH
6.	BARTEC Safety Technologies, Dubai, UAE	1	1	CHE
7.	BMTC, Dubai, UAE	27	-	-
8.	BPG, Dubai, UAE	73	-	-
9.	CONRAC, Dubai, UAE	48	3	EEE, ECE
10.	DBA infotech, Abu Dhabi, UAE	20	-	-
11.	Dia-33, Dubai, UAE	1	1	CHE
12.	Doosan Heavy Industry, Dubai, UAE	1	1	ECE
13.	EASA SALEH AL GURG Group, Dubai, UAE	23	-	ECE, EEE, EIE, MECH
14.	ECS, Dubai, UAE	2	2	CS
15.	Emax Electronics, Dubai, UAE	1	1	ECE
16.	Emhart Glass, Florida, USA	1	1	EEE
17.	ESRI, Sharjah, UAE	22	2	CS
18.	EY India, India	1	1	ECE
19.	Facebook, India	1	1	ECE
20.	FVC, Dubai, UAE	60	5	EIE, ECE, CS
21.	GBM, Dubai, UAE	52	8	ECE, CS
22.	GISTec, Sharjah, UAE	4	2	CS
23.	Gulf Jyoti International, Dubai, UAE	1	1	EEE
24.	Halliburton, Dubai, UAE	1	1	ECE
25.	Hampton International, Dubai, UAE	1	1	CS
26.	Johnsons control, Dubai, UAE	2	2	CS, ECE
27.	Kautilya project Consultancy, RAK, UAE	6	6	ECE, MECH
28.	Kingsmen Middle East, Dubai, UAE	31	1	MECH
29.	Kuwait National Petroleum Company, Kuwait	1	1	MECH
30.	L & T Electrical and Automation, Dubai, UAE	1	1	ECE, CS
31.	Levtech Consultancy, Dubai, UAE	32	-	ECE, CS
32.	London Marine Consultancy, London	15	-	MECH
33.	LUXTRON Systems, Dubai, UAE	37	2	ECE, EEE

S.No.	NAME OF ORGANISATION	NUMBER OF STUDENTS		DISCIPLINE
		INTERVIEWED	SELECTED	
34.	Microsoft, Dubai, UAE	1	1	CS
35.	Murano Lighting LLC, Sharjah, UAE	6	1	ECE
36.	Oracle, Hyderabad, India	22	-	CS, ECE
37.	Paramount Computers, DIC, Dubai, UAE	8	3	CS, ECE
38.	Pentair, Sharjah, UAE	1	1	MECH
39.	Petrofac International, Sharjah, UAE	3	3	ECE, CHE
40.	Polaris Financial Technology, India	26	5	CS
41.	Price Water House Coopers, Dubai, UAE	1	1	MECH
42.	Rexel Industries, Dubai, UAE	1	1	MECH
43.	Rock wood International LLC, Dubai, UAE	20	3	ALL
44.	Scan Technology, Dubai, UAE	6	2	CS
45.	Sciencetech, Dubai, UAE	67	8	ECE, EEE, EIE, MECH
46.	Standard Chartered Bank, Dubai, UAE	75	-	-
47.	Star Cement, Dubai, UAE	20	-	ECE, EIE, MECH, CHE
48.	Teach For India, Mumbai, India	1	1	BIOTECH
49.	Technoware, Dubai, UAE	3	2	ECE
50.	Telematics, Dubai, UAE	3	3	EEE, ECE, EIE
51.	Think Software Solutions, Dubai, UAE	29	2	CS, ECE
52.	Topnet Distribution, Dubai, UAE	2	2	EEE, ECE
53.	TTK middle East, Dubai, UAE	1	1	MECH
54.	Vamsi Ram Builders, Secunderabad, India	1	1	CS
55.	Videocon industries Ltd., Dubai, UAE	52	-	ECE, EIE, EEE
56.	Visionaire, Dubai, UAE	9	2	CS
57.	Water Engg. Tech. FZC, Sharjah, UAE	25	4	CHE, MECH
58.	Yes Bank, India	1	1	EEE

### Summary

Total No. of Companies: 58

Total No. of students interviewed: 979

Total No. of appointments offered: 104

### \*Legend

CHE: Chemical, CS: Computer Science, EEE: Electrical & Electronics, EIE: Electronics & Instrumentation, MECH: Mechanical, BIOT: Biotechnology, ECE: Electronics & Communication

*Annexure B4-9  
(16 Pages)  
Ref. AR 2013, Page No. B4-10*

## LIST of FIRST DEGREE PROJECTS

### Second Semester 2012-2013 (February 2013 to June 2013)

S.No.	Name	Topic	Instructor	Type
1	Aarushi Mittal	Analysis of Service Times of Patients in a Hospital	Maneesha, B.	CP
2	Achutuni Krishna Chaitanya	Voice/unvoiced/silence detector for speech signals	T.G. Thomas	CP
3	Adarsh Venkataraman G	Design and Simulation of MEMS based Immuno-sensor for Ebola Virus detection	K. K. Singh	CP
4	Ahmad Hammad Khan	Computer simulation of hydraulic systems using automation studio.	R.Udayakumar	CP
5	Ahmed Noufal	Developing mobile enabled application and deploying it in cloud	S. Susila	CP
6	Aiswarya Shanmuga Sundaram	Application of optimization techniques in Supply Chain Management	Aqila, R.	CP
7	Ankit Prakash	Design and development of mobile based cloud enabled student information systems	S. Vadivel	CP
8	Ankit Raj	Engineering Applications of Symmetric Matrix Eigen Value Problems Using Mat Lab	S. Baskaran	CP
9	Anshul Singhal	Optimization of Suspension Stiffness and Damping for better Performance	R. Udayakumar	CP
10	Anwasha Das	An Empirical analysis on perception towards online banking services	Aqila, R.	CP
11	Aparna Suresh Babu	Simulation of Matrix Ricatti Equation in Optimal Control Theory	A. B. Chattopadhyay	CP
12	Apeqsha	Design and Analysis of budgeting in the Marketing Firm	Aqila, R.	CP
13	Arpit Jain	Proportional Hydraulic Circuits for Automobile Braking System	R. Karthikeyan	CP
14	Arshia Fathima	Design and Implementation of an Automatic prediction model for BOD in water samples using data mining techniques	Alamelumangai, J.	CP
15	Arun Chandrasekharan Nair	Modeling and simulation of transients in base drive circuits in relation to TURN-ON of a power transistor.	A. B. Chattopadhyay	CP
16	Arundhuti Banerji	Statistical Analysis of environmental sustainability measures by corporate in UAE	Pushkala, M.	CP
17	Ashok Kumar Aman Dhiman	Study and design of system of equations for real time application	S. Kavitha	CP
18	Bhargav Mallampati	Design and analysis of an algorithm based on depth first search for finding articulation points of a graph	A. Somasundaram	CP
19	Devesh Kumar	PLC applications in manufacturing industry	R. Gomathi Bhavani	CP
20	Dhruv Mohan	Solving Engineering Problems Using Ancient Indian Mathematics	Priti Bajpai	CP

S.No.	Name	Topic	Instructor	Type
21	Diksha Gupta	Goal Programming Problems using Solver	Priti Bajpai	CP
22	Dronadula Dhruva Anurag	Analysis of financial performance of ESG funds	Pushkala, M.	CP
23	Elias Ahamed Zuhair Ahamed	Design And Analysis of F1-Steering System	C. Perisamy	CP
24	Emmanuel Yesudasan	Alternate fuels in petrol engine	R. Udayakumar	CP
25	Ganesh Kumar S	Planning efficient software tests	S. Jeyalatha	CP
26	Gangadhara Surya Uppalapati	Mat lab implementation of optimization techniques by conjugate gradient methods	S. Baskaran	CP
27	Haribhakti Samarth Gopal	Trading of securities in financial markets using computational tools	Pushkala, M.	CP
28	Heena Jain	Computer aided design of various profiles of propellers used in aircrafts	M. V. N. Sankaram	CP
29	Indranil Banerjee	Converting dot net or java based single tenant web applications to multitenant application for cloud deployment	S. Vadivel	CP
30	Ishani Babubhai Prajapati	Intelligent Lighting Controls: Design & Implementation	R. Anand Kumar	CP
31	Jacob Joy	Project management a Case Study	A. Somasundaram	CP
32	Jhankar Agarwal	Inventory Problems, a Case Study	Priti Bajpai	CP
33	Joseph Geogy Ukken	Design and Implementation of Virtual Meeting Place	V. Santhosh Kumar	CP
34	Katdare Ameya Mangesh	Finite element analysis of gear tooth files for a differential mechanism	M. V. N. Sankaram	CP
35	Martins Vivek John Dominic	Hydraulic Circuit Simulation for Machine Tools	R. Karthikeyan	CP
36	Mayura Sarvesh Khanapurkar	Semantic web enabled web service	Sujala D. Shetty	CP
37	Mohmed Talha	Modeling and Simulation of Speed Transients of a Chopper fed D.C Series Motor	A. B. Chattopadhyay	CP
38	Nabeel Salim	Application on windows 8	S. Susila	CP
39	Nalin Sharma	Web based System for Submission of Practice School Data	Jagadish Nayak	CP
40	Nimish Pande	Design and Analysis of propeller shafts used in Aircrafts	M. V. N. Sankaram	CP
41	Ninad Sunil Sabnis	Algorithm and numerical solution of volterra integral	Suhel A. Khan	CP
42	Niyati Parameswaran	Design and development of Data mining application for network intrusion detection	S. Vadivel	CP
43	Nupur	Design and Implementation DBMS for Online Invigilation Allotment	V. Santhosh Kumar	CP
44	Pranav R K	Calculation of ultrasonic velocity of binary liquid mixtures by various theoretical model	S. Karthiyayini	CP
45	Pratik Raju Joshi	Design & simulation of OCR for a real-Time application	M. Madijagan	CP
46	Pratik Sen	Implementation and verification of Open stack cloud infrastructure	S. Vadivel	CP
47	R R Varundas	Simulation Studies on Control Strategies for Friction Stir Welding	V. Kalaichelvi	CP

S.No.	Name	Topic	Instructor	Type
48	Rahul Philip	Design and Implementation of data modeling algorithm for web usage mining	S. Jeyalatha	CP
49	Ranjan Dubey	Design and Implementation User Interface for Online Invigilation Allotment	V. Santhosh Kumar	CP
50	Rashid Ali Khan	Analysis of a multi-machine power system	A. B. Chattopadhyay	CP
51	Rinnie Aggarwal	Developing a broker service for cloud based applications	Sujala D. Shetty	CP
52	Rohit Rajkumar	Sensitivity Analysis , a Case Study	Priti Bajpai	CP
53	Rushikesh D Thakkar	Data Analyses in Telecom Sector using SAS	Maneesha, B.	CP
54	Saad Vakil	Mathematical Strategies And Complex Financial Instruments Employed in Hedge Funds	Maneesha, B.	CP
55	Sahil Sahni	Design and implementation of an algorithm for a transportation problem	S. Kavitha	CP
56	Sanchit Sekhwal	Numerical solution and Algorithm of some real life LPP problems	Suhel A. Khan	CP
57	Sanjay Tulsidas Paryani	Forecasting methods using MATLAB	Suhel A. Khan	CP
58	Sarthak Agarwal	Study & Design of Cryogenic Engine	C. Perisamy	CP
59	Sarthak Gupta	Application of IV order RK method in engineering	Suhel A. Khan	CP
60	Shariq Salim	Planning and designing transportation networks for perishable goods using Mat lab	S. Baskaran	CP
61	Shashank Sripathi	Study of Flow Analysis in a Gas Turbine Combustor	C. Perisamy	CP
62	Shivam Sharma	Project Management a Case Study	Priti Bajpai	CP
63	Shraiya Anand	Cognitive Radio Simulation	R. Gomathi Bhavani	CP
64	Siddhant Kumar	Critical path analysis of some complex projects using C	Suhel A. Khan	CP
65	Sohil Malhotra	Study of GSM technology in Home Automation	R. Gomathi Bhavani	CP
66	Subhadra Sahana Vemuri	Creating a CSR web portal for corporate stakeholders	Pushkala, M.	CP
67	Suhela Farhat	Designing architectural model for data disaster recovery in a cloud computing environment for small and medium enterprise.	M. Madijagan	CP
68	Suraj Prakash Khetani	Network analysis for bandwidth leakage	S. Susila	CP
69	Swathi R Prasad	Design and Implementation of various Normalization Techniques: a Data Mining Perspective	Alamelumangai	CP
70	Syed Aaquib Hazari	Heat transfer studies in photovoltaic systems	B. B. Gulyani	CP
71	T Krishna Chaitanya	Using Programmable Logic Controller for Industrial Applications	V. Santhosh Kumar	CP
72	Tanveer Malhan	Hydraulic Circuit Simulation for Friction Stir Welding Machine	R. Karthikeyan	CP
73	V Mounika	Design and analysis of an algorithm to determine isomorphic graphs	A. Somasundaram	CP

S.No.	Name	Topic	Instructor	Type
74	Vallaturu Anish	Analysis of E Marketing in the Higher Education	Aqila, R.	CP
75	Vasudev Krishnan Nalapat	Integration of Lean Manufacturing Tools Used in Manufacturing Firms and Service Sector	C. Mallika Parveen	CP
76	Vasudevan R	Creation of model for application of financial statements	Aqila, R.	CP
77	Venkateswaran Santhanam	Fluid Flow Analysis in Automatic Torque Converters	C. Mallika Parveen	CP
78	Vineetha Sasikumar	Design and Implementation of Agglomerative Clustering techniques for web page classification	Alamelumangai	CP
79	Viren Prakash Gandhi	The Study of Lean manufacturing tools and its software application	Maneesha, B.	CP
80	Vivek Radhakrishnan	Software Implementation for Portable Miniature Finger Print Scanner	Jagadish Nayak	CP
81	Waseem Abdullah	SIMULINK based BUCK and BOOST Converter simulations	K. Nithyananthan	CP
82	Yashovinay Pipada	Design and Analysis of Bearings	C. Mallika Parveen	CP
83	Yelloji Navya Nayaki	Feasibility Study of a Programmable Transmit and Receive DSP Solution (Modulation/Demodulation Schemes) for Coherent Optical Transmission Over Single-Mode Fiber (SMF)	R. Anand Kumar	CP
84	Anshul Singhal	Optimization of Mass Flow Rate for An Air Restrictor	C. Mallika Parveen	LOP
85	Achutuni Krishna Chaitanya	Design of Filters At Radio Frequency	A. R. Abdul Razak	LOP
86	Adarsh Venkataraman G	Design & analysis of a MEMs based CO2 detection system	S. Swaminathan	LOP
87	Anirudh Valluri	Design and analysis of Efficient Energy Management Technology for buildings in Dubai	N.K. Miller Jothi	LOP
88	Asma Fathima	VHDL Implementation of UART	A. R. Abdul Razak	LOP
89	Ben Anthony Joseph	Adsorption and kinetics studies on activated carbon.	B. G. Prakash Kumar	LOP
90	Deepan Kishore Kumar	Design & analysis MEMs device for treating BPPV	S. Swaminathan	LOP
91	Deol Adhithia	Combustion and heat release analysis of Butanol in a diesel engine	R. Udayakumar	LOP
92	Emmanuel Yesudasan	Analysis of an Integrated Gasification combined Cycle [IGCC] power plant with different options for gasification	N.K. Miller Jothi	LOP
93	Gudimetla Jyotsna	Generalized Predictive Control Approach for a Pressure Process	Kalaichelvi	LOP
94	Heenal Paresh Mehta	Design of computer aided water level control system.	R. Swarnalatha	LOP
95	Jaikishan Jain	Effect of Filler Materials On Mechanical Properties of Natural Rubber	R. Karthikeyan	LOP
96	Jyoti Motwani	Bioremediation of crude oil spills	B. B. Gulyani	LOP
97	Khushbu Kothari	Determination of Fermentation Process Kinetics of Anaerobic Bacteria by Using Inorganic Carbon and Nitrogen Sources	S. Ramachandran	LOP
98	Melvin Vincent	Optimization of Process Parameters in TIG Welding of Aluminum	R. Karthikeyan	LOP



S.No.	Name	Topic	Instructor	Type
99	Mohammed Noufal Afrin Kmi	Study of variations in structures of Nano-Materials due to defects	S. Karthiyayini	LOP
100	Naman Jain	Design & analysis of sensor system for intraocular pressure measurement	S. Swaminathan	LOP
101	Nikhil Sangtani	Testing of Materials for Automobile Applications	C. Periasamy	LOP
102	Nilay Devendra Kapadia	Hardware Development And Design of a Portable Miniature Finger Print Scanner	Jagadish Nayak	LOP
103	Nirmit Mehta	Interfacing Sensor With Hardware for Miniature Finger Print Scanner	Jagadish Nayak	LOP
104	Niyati Parameswaran	Design & implementation of cloud based architectural model for a Virtual e-Medic System (VeMS)	M. Madijagan	LOP
105	Sahil Gupta	Design and fabrication of gear train mechanism for a tractor used in agriculture	M. V. N. Sankaram	LOP
106	Sarah Nuruddin	Use of Vibrio SP as a bio analyte in development of biosensors	Trupti G. Swarup	LOP
107	Shivani Phadke	Design & analysis of surface acoustic wave gas sensors	S. Swaminathan	LOP
108	Siddharth Jain	Design and Simulation of ZNO based Acoustic Pressure Sensor	Krishna K. Singh	LOP
109	Syed Aaquib Hazari	Scope of Energy conservation in process Industries	N.K. Miller Jothi	LOP
110	Tariq Abdul Aziz Al Nahdi	Design and Analysis of Heat Recovery Steam Generator [HRSG] in Cogeneration Plant	N.K. Miller Jothi	LOP
111	Vasudevan R	Implementation of a four bit binary divider circuit	R. Mary Lourde	LOP
112	Venkateswaran Santhanam	Process Optimization in Friction Stir Welding of Aluminum Alloys	R. Karthikeyan	LOP
113	Yezhil P V	Study And Design of Wave Energy Converter	A. M. Surendra Kumar	LOP
114	A V Ramani	Renewable energy sources	Kavita Sunil Jerath	SOP
115	Abeer Shaikh	Fixed Free Single Walled Carbon NANOTUBE-Based Bio-Sensor	K. K. Singh	SOP
116	Abhinav Patrick Tobin	Study of superconducting properties of high temperature superconductors	Kavita Sunil Jerath	SOP
117	Abhishek Sai Datla	A comparative study of Unsupervised methods for web page classification	Alamelumangai	SOP
118	Advait Vaidya	Study of Test Suites for Virtualized Environments	V. Santhosh Kumar	SOP
119	Ajay Jesse Thomas	An Assessment of the Effectiveness of Online Language Learning	Shazi Shah Jabeen	SOP
120	Amit Prabhakaran Nair	Medicinal Applications of Lasers - Eye Surgery	G. Amaranath	SOP
121	Anirban Ganguli	HVDC transmission in India	R. Gomathi Bhavani	SOP
122	Ankita Anupoju	Recent Trend in Supply Chain Management	T. K. Datta	SOP
123	Anuj Agarwal	Development of an elective course on Color	B. B. Gulyani	SOP
124	Arshia Fathima	Image processing in Biomedical applications	R. Mary Lourde	SOP
125	Aseem Prashar	Study of MEMs based RF passives for on chip RF circuit implementation	S. Swaminathan	SOP

S.No.	Name	Topic	Instructor	Type
126	Ashok Kumar Aman Dhiman	study of project finance banking	Pushkala, M.	SOP
127	Ayush Chordia	Security & Privacy Issues in Cloud Computing	M. Madijagan	SOP
128	Bhargav Mallampati	Application of Laplace transformation in power system load frequency control	Suhel A. Khan	SOP
129	Cherlakola Nitish Reddy	Data Mining in Health Care Sector	Jagadish Nayak	SOP
130	Deegant Mahesh Mistry	Cancer Detection using Neural Networks	Kalaichelvi	SOP
131	Deepan Kishore Kumar	Biological Sensing methodologies using Micro and Nano Technologies	R. K. Mittal	SOP
132	Dev Dua	Study and Design of a Framework for E-Waste Management based on CYBERLAWS	B. Vijaya Kumar	SOP
133	Devesh Kumar	Marketing strategies used in Dubai Real Estate	Aqila, R.	SOP
134	Dhruv Pant	comparative study on the preparation of zero Valent iron for effluent water treatment	Geetha	SOP
135	Dronadula Dhruva Anurag	A study on theory of graphs and its applications	A. Somasundaram	SOP
136	D'souza Wayne Jonathan	Study on condition monitoring methodologies for process industries	M. V. N. Sankaram	SOP
137	Elias Ahamed Zuhair Ahamed	Study and Analysis of F1 KERS	C. Mallika Parveen	SOP
138	Gopu Sajeev Kumar Gopalan	Applications of Hydrogen Fuel Cell in Automobile Engines	N.K. Miller Jothi	SOP
139	Gunturu Venkata Sai Ram Babu	Techniques employed in Computer Assisted Electrocardiography - past, current and future	G. Vijaya	SOP
140	Gupta Rishi Rakesh	Design of an electric engine for an environment preserving car	R. Anand Kumar	SOP
141	Harsh Joshi	A Comparative Study On Hollywood & Bollywood Movies Which Are Based On Literature	Lajwanti	SOP
142	Jumana Noushad Humam	Study of Medical Imaging systems	R. Swarnalatha	SOP
143	Jyoti Motwani	Hexavalent Chromium Induced Mutagenesis and the Signal Transduction Mechanisms in Lung Cancer	S. Ramachandran	SOP
144	Jyotsna Deepak Asarpota	Study of the effect of corrosion on the local ordering in amorphous glasses	Kavita Sunil Jerath	SOP
145	Lethin Prasad	Study on STATCOM in relation to FACTS	Sunil Thomas	SOP
146	Lovita Elesha Miranda	Boolean expression evaluation App on windows 8	Susila, S.	SOP
147	Manisha Kakwani	A study of speech coder systems	T.G. Thomas	SOP
148	Mantha Sarada	Implement load balancing servers using virtual machines in Amazon cloud and verify the fault tolerance	S. Vadivel	SOP
149	Mohammed Salahuddin Noman	Theoretical analysis of physical properties of nanocrystalline materials	S. Karthiyayini	SOP
150	Mohd Zubair Ahmed	A study of Monte Carlo methods for security pricing	S. Baskaran	SOP
151	Nadeem Rasheed	Theoretical analysis of mechanical properties of nanocrystalline materials	S. Karthiyayini	SOP

S.No.	Name	Topic	Instructor	Type
152	Nigel Domnic Pereira	Entrepreneurial growth and innovation: an empirical study of SMES at Dubai	Srinivasa Rao	SOP
153	Nithin Thomas John	Applications of Nano-Catalysis in Petroleum Industry	Rusal Raj Francis	SOP
154	Pandalaneni Adarsh	Numerical study of linear shallow water wave equations	K. Kumar	SOP
155	Pranav Srivatsav J	Study On Electric VLSI Cad Software	A. R. Abdul Razak	SOP
156	Prasanth Francis Pulikkottil	Applications of adsorption in domestic and industrial uses.	Rajan Ramaswamy	SOP
157	Purab Dilip Bhatia	Study of Effectiveness of E-learning	Shazi Shah Jabeen	SOP
158	Rahul Meka	Analysis of Energy Production	Maneesha, B.	SOP
159	Rathaur Akanksha Jaideep Singh	Study of Wireless Smart Sensors	D.V. Prasad	SOP
160	Roby Baby Oommen	Effect of Catalyst On Propellant Combustion	C. Periasamy	SOP
161	Ronak Rajesh Sumbaly	Study and analysis of sequential and navigational patterns	S. Jeyalatha	SOP
162	Sahil Sahni	Study of Just in Time in Manufacturing Process	A. M. Surendra Kumar	SOP
163	Sanchit Sekhwal	Application of Transportation Problems	Priti Bajpai	SOP
164	Sankalp Akshay	Study of Ethical and Governance issues that affect sustainability	Pushkala, M.	SOP
165	Sarah Nuruddin	Studies on diseases alleviated using stem cell therapy	D. J. Shariff	SOP
166	Sarthak Garg	Study on Prevalence of Down's Syndrome in UAE	Trupti G. Swarup	SOP
167	Shariq Salim	Marketing trends of FMCG in Dubai	Aqila, R.	SOP
168	Siddharth Jain	Application of Marketing strategies in Education sector in UAE	Aqila, R.	SOP
169	Sneha Ajay Mody	Energy efficient cloud computing	Sujala D. Shetty	SOP
170	Subhadra Sahana Vemuri	What communication skills do employers in Dubai look for?	Mubeena Rahman	SOP
171	Uzair Ahmed	Study and analysis of ECU of an automobile.	R. Udayakumar	SOP
172	Yezhil P V	Some aspects of smart grid power systems	A. B. Chattopadhyay	SOP
173	Dhwani Vijay Chotalia	Mobile cloud computing	Sujala D. Shetty	SP
174	Arundhuti Banerji	Real-Time Management Information System for Financial Institutions	M. Madijagan	SP
175	Mohamed Ashraf Nalakath	Analysis and Applications of Nano Technology in Renewable Energy Sources	N.K. Miller Jothi	SP
176	Mohammed Nihal Anjum	Design of Frequency Hope Spread Spectrum Using MATLAB	A. R. Abdul Razak	SP
177	Nimish Pande	Experimental and theoretical analysis of Heat release models for for IC engine combustion.	R. Udayakumar	SP
178	Radhika Kapoor	Regenerative Braking And KERS in Hybrid Vehicles	C. Mallika Parveen	SP
179	Rahul Meka	Static and dynamic analysis a reciprocating engine mechanism used in a diesel engines	M. V. N. Sankaram	SP
180	Rimpy Malik	Electrical machine design applying MATLAB	Gomathi Bhavani,	SP

S.No.	Name	Topic	Instructor	Type
181	Rohit Jain	Study And Design of Auto-Tilting Car	R. A. M. Surendra Kumar	SP
182	Shada Zainuddin	To analyze the energy saving aspect for a variable frequency induction motor drive	A. B. Chattopadhyay	SP
183	Viren Prakash Gandhi	Process Optimization in TIG Welding	C. Perisamy	SP

### First Semester 2013-2014 (September 2013 to January 2014)

1	Aakash Gopalakrishnan	Analysis of Relationship Between Financial Performance And ESG Factors	Pushkala Muralidharan	CP
2	Aakriti Singh	Application of Forecasting Techniques	Suhel A. Khan	CP
3	Abhilash Saxena	Value Addition-Increase Production By Providing Logistics Solutions	Maneesha, B.	CP
4	Abhishek Singara Velu	Calculation of Ultrasonic Velocity of Binary Liquid Mixtures By Various Theoretical Model	S. Karthiyayini	CP
5	Aditya Jain	Designing And Implementation of a Student Web Portal	V. Santhosh Kumar	CP
6	Ahmad Hasan	Comparative Study of Different Kind of Gas Sensors	K. K. Singh	CP
7	Akash Jethwani	Implementation of Data Mining Enabled Intrusion Detection System	S. Vadivel	CP
8	Akshay Raj Bhati	Solving Business Problems Using Linear Programming	Priti Bajpai	CP
9	Amit Gupta	Returns To Scale in Banking Industry in United Arab Emirates	Aqila Rafiuddin	CP
10	Anas Ubaid	Development of ANSYS Software for Design And Analysis of CI Engine Components	N.K. Miller Jothi	CP
11	Anirudh Narain Mathur	Analysis of Problems Faced By New Entrants in The Mobile Phone Market	Aqila, R.	CP
12	Anshuman Shastri	Computerized Reproduction of And Wireless Transmission With Tesla Coil	R. Anand Kumar	CP
13	Arigeli Sai Harish	Design And Implement Road Traffic Junction Regulation Using Modified Swarm Intelligence	R. Anand Kumar	CP
14	Arjun Mahendra	Optimization of Manufacturing Conditions for Activated Carbon Using Response Surface Methodology	B. G. Prakash Kumar	CP
15	Arshaq Yahia	Design And Implementation of 2d/3d Images-Holographics Images Transformation	R. Anand Kumar	CP
16	Athira Mayadevi Somnathan	Rake Receiver for Multipath Signals	T. G. Thomas	CP
17	Athira Mayadevi Somnathan	A Neural Network Approach for Data Compression	V. Kalaichelvi	CP
18	Azeema Alam	Analysis And Making of Inferences About Single Population Parameters Using SPSS	S. Baskaran	CP
19	Chiraag Manoj Kisani	Application of Parametric Hypothesis in Real Life Problems	Suhel A. Khan	CP
20	Deena Qurshid Faheem	Risk Analysis in Financial Markets	Aqila, R.	CP

S.No.	Name	Topic	Instructor	Type
21	Deepika Lakshmanan	Comparison of TCP Reno And Vegas in Wireless Mobile Ad Hoc Networks	S. Susila	CP
22	Eliath Anish Fernandes	Creating a Model for Analysis of Cash Flow	Pushkala, M.	CP
23	Ganesh Kumar S	Developing An Android Application Using Phone gap	M. Madijagan	CP
24	Gunjan Khera Anil Kumar Khera	Comparative Studies On Analysis of Different Structure Function Relationships Of rubisco Using Protein Prediction Software.	S. Ramachandran	CP
25	Gurmeet Kaur	Solving Transportation Problem for a Real Life Situation	Priti Bajpai	CP
26	Indranil Banerjee	Web Apps 1 for Practice School Division	Muthaiyan Madijagan	CP
27	Ishita Sharma	Solving Business Problems Using Sensitivity Analysis	Priti Bajpai	CP
28	Jacqueline Antony	Dynamic Request Management Algorithms for Web-Based Services in Cloud Computing	Susila .S	CP
29	Jonathan Samuel Justin	Fluid Flow Analysis Aircraft Wing Using ANSYS	Periasamy .C	CP
30	Jyotika Singh	Timing (Clock) Recovery in Receivers	Thoppil George Thomas	CP
31	K Abinaya	Implementation of Image Reconstruction Algorithm	Jagadish Nayak	CP
32	Khyati Ajay Jain	Fluid Flow Analysis Around The Structure of Birds for Innovations in Aviation Industry	Mallika Parveen	CP
33	Kushagra Krishna	Quantitative Estimation of Energy Performance in Residential Buildings	Alamelu Mangai	CP
34	Malavika Karthik Vasudevan	Development of Applications in Cloud Computing	V. Santhosh Kumar	CP
35	Mecheri Silpa Subash	Parametric Optimization Problem in Optimal Control Theory	A. B. Chattopadhyay	CP
36	Mehul Atree	Impact of Marketing Campaigns On Market Share	Pushkala, M.	CP
37	Michelle Beryl	Application of Liapunovs Technique To The Analysis of a Power System Stability Problem	A. B. Chattopadhyay	CP
38	Milind Agrawal	Developing a Mobile Application On Windows Platform	Sujala D. Shetty	CP
39	Munsif Muhammed	Heat Flow Analysis in TIG Welding of Al Alloy Plates	C. Perisamy	CP
40	Mustafa Sirajbhai Kagalwala	Developing Circuit Simulation Software On Android Platform	Jagadish Nayak	CP
41	Nabeel Salim	Solving Business Problems Using Multiple Goals	Priti Bajpai	CP
42	Nambiar Shruti Surendrakumar	Design And Implementation of Hadoop Based Big Data Analytics	S. Vadivel	CP
43	Nasreen Fatima	Matlab Implementation of Option Pricing By Transform Techniques	S. Baskaran	CP
44	Omik Tejpal Suvarna	Design for Environment - Analysis of Composite Materials	C. Mallika Parveen	CP
45	Pooja N Shah	Simulation of Friction Stir Welding Using ANSYS	R. Karthikeyan	CP

S.No.	Name	Topic	Instructor	Type
46	Pooja Sharma	Design And Deployment of Windows 8 Based Mobile Client for Cloud Enabled Hospital Management System	S. Vadivel	CP
47	Poonam Ramachandra Nair	Solving Transportation Problem for a Company Using Excel Solver	Priti Bajpai	CP
48	Pratik Sen	Design And Implementation of Face Description And Classification Using Image Databases	S. Vadivel	CP
49	Priyanka Chandwani	VHDL Simulation of a 4 Bit Arithmetic Logic Unit	R. Mary Lourde	CP
50	Priyanka Jaswani	Computer Based Model for Analysis of Impact of CSR Initiatives in Dubai Based Organizations	Pushkala, M.	CP
51	R R Varundas	Force Control of Friction Stir Welding Using Genetic Algorithm	V. Kalaichelvi	CP
52	Rahul Philip	Developing a Game Using Unity Game Engine	Sujala D. Shetty	CP
53	Ranjit Singh	Computer Simulation of Hydraulic Systems Using Automation Studio.	R. Udayakumar	CP
54	Rehan Rishi	Speech Enhancement in Noise	T. G. Thomas	CP
55	Reshma Regi	Critical Path Analysis in Real Time	Suhel A. Khan	CP
56	Reuben Sharma	Design And Analysis of The Strategies And Algorithms To Solve Travelling Salesman Problem	A. Somasundaram	CP
57	Rishiraj Kalra	Application of Solving Nonlinear Equation Using C Language	S. Kavitha	CP
58	Saurabh Agarwal	Computer-Based Test of Parametric Hypothesis	T. K. Datta	CP
59	Saurabh Gupta	Developing a Package for Basic Matrix Operations	T. K. Datta	CP
60	Seemant Mamtani	Design of Steering for Racing Cars	C. Mallika Parveen	CP
61	Shaik Mohammad Sultan	Computer-Based Test for Non-Parametric Hypothesis	T. K. Datta	CP
62	Sheikh Salim Akhtar Janab Ali	Applications Development in Cloud Computing Environment.	Nand Kumar	CP
63	Shilpa Ann Johnson	Two-Way Analysis of Variance Using Anova	Suhel A. Khan	CP
64	Shubhanshu Singh Kushwah	Design And Develop To Smart Device Apps To Map GPS Coordinates With The User Specified Place	M. Madijagan	CP
65	Sohan Amarnani	Designing And Developing An Android Gaming Application	M. Madijagan	CP
66	Sreedhar	Developing a Third Person Shooter Game for Desktop	Sujala D. Shetty	CP
67	Sreesha Damodaran	Analysis of Braking of Three Phase Induction Motor	Sunil Thomas	CP
68	Sudarshan Santhanam	Cloud Computing	Susanna Henry	CP
69	Sushil Adhikari	Time Series Analysis Using Computer	T. K. Datta	CP
70	Tharun Francis Joseph	Computer Aided Design Optimization of An Automobile Component	R. Udayakumar	CP
71	Vaishnav Balaji	Design Modifications for Braking And Steering Systems of An Automobile.	R. Udayakumar	CP
72	Vanessa Rosalyn Lewis	Working And Performance Comparison of Different Intrusion Prevention Systems	Sujala D. Shetty	CP

S.No.	Name	Topic	Instructor	Type
73	Venkatesh S B	Empowering Document Clustering Through Multi View-Point Based Similarity Measure. Performance Implications, And Resource Management	S. Susila	CP
74	Vidya Kumar	RFID And GSM Based Intelligent Courier Mailbox System	R. Anand Kumar	CP
75	Vineesha Satwani	Impact of Marketing Campaigns On Market Share	Pushkala, M.	CP
76	Vivek Radhakrishnan	State Variable Model of a Dc-Dc Power Electronic Converter	A. B. Chattopadhyay	CP
77	Zeheer Mohamed Abdul Rehman	Simulation of Deep Drawing Process Using ANSYS	R. Karthikeyan	CP
78	Ayush Chordia	Study And Analysis of Software Architecture for Collaborative Applications in a Private Cloud Based On Proprietary And Open Source Software	B. Vijayakumar	DP
79	Lovita Elesha Miranda	Win 8 App	Gokhale Trupti Swarup	DP
80	Manisha Kakwani	Web Apps 2 for Practice School Division	M. Madijagan	DP
81	Abhilash Saksena	Fluid Flow Analysis And Aviation of Birds	C. Mallika Parveen	LOP
82	Alvin George	Dosage of Bleaching Powder Required for Sterilization of Water Samples.	Vijaya Ilango	LOP
83	Anagha Raveendran Valiya	Treatment of Pesticide Residues in Waste Water Using Advanced Photo-Catalytic Oxidation	B.G. Prakash Kumar	LOP
84	Anand Sudhakaran	Comparative Study Analysis On TIG And Arc Welding	C. Perisamy	LOP
85	Aparajita Dasgupta	Treatment of Hydrocarbon Residues in Waste Water Using Advanced Photo-Catalytic Oxidation	B.G. Prakash Kumar	LOP
86	Dave Rutvik Nishith	Dissimilar Metal Joining Using TIG Welding	R. Karthikeyan	LOP
87	Fardin Afthab	VLSI Implementation of CRC Generator Using Synopsys Tools	A. R. Abdul Razak	LOP
88	Munsif Muhammed	Deep Drawing of Friction Stir Welded Specimens	R. Karthikeyan	LOP
89	Myadam Srinivas Nishanthrao	Relative Emissions From The Rare-Earth Doped Materials	G. Amaranath	LOP
90	Nilay Devendra Kapadia	Generation And Transmission of Electricity Through Quartz Crystals	A. B. Chattopadhyay	LOP
91	Nirmit Mehta	Generating Electricity Using Piezoelectric Crystals	V. Santhosh Kumar	LOP
92	Nitin Antony	Design And Fabrication of Wooden Air Engine	M. V. N. Sankaram	LOP
93	Omik Tejpal Suvarna	Design And Fabrication of Inverted Gear Train Mechanism	M. V. N. Sankaram	LOP
94	Prithvi Rajan Ravi Raj	Design And Fabrication of Piezoelectric Speed Bumps	M. V. N. Sankaram	LOP
95	Priyanka Jaswani	A Web Based Model for Stock Management	V. Santhosh Kumar	LOP
96	R R Varundas	Design And Fabrication of Windmill for Power Generation in Bits, Pilani Dubai Campus	N.K. Miller Jothi	LOP
97	Rachit Singh	Treatment of Hydrocarbon Residues in Waste Water Using Electro-Coagulation	B. B. Gulyani	LOP

S.No.	Name	Topic	Instructor	Type
98	Ranjit Singh	Computer Aided Design of Ship Hull Structure	M. V. N. Sankaram	LOP
99	Saif Mushtaq Sayyed	Heat Release Analysis With Di-Ethyl Ether And Diesel in a Dual Fuel Operation of a CI Engine.	R. Udayakumar	LOP
100	Sanya Ahmed	EMG Decomposition Based On Fuzzy Logic.	D.V. Prasad	LOP
101	Sheikh Nayab Karim	Proposals for Energy Conservation Audit in Utilities At Various Industries	N.K. Miller Jothi	LOP
102	Shweta Kishor Dhansinghani	Implementation of a Four Bit Binary Divider Circuit Using Restoration Method	R. Mary Lourde	LOP
103	Siddique Kulangarakath Mohdkasim	Friction Stir Welding of Polymers	R. Karthikeyan	LOP
104	Sony George Mathew	Cloud Computing	Susanna Henry	LOP
105	Sreesha Damodaran	VLSI Implementation of High Speed LFSR Using Synopsys Tools	A. R. Abdul Razak	LOP
106	Syed Yasser	Design And Fabrication of Slider Crank Mechanism	C. Mallika Parveen	LOP
107	Tanya Khanna	PWM Signal Generation Using Microcontroller	R. Mary Lourde	LOP
108	Tharun Francis Joseph	Installation of Piping for Commissioning of Solar Water Heater for Boys Hostel in Bits Pilani Dubai Campus	N.K. Miller Jothi	LOP
109	Torvi Shrinidhi Dhruvakumar	VLSI Implementation of FFT and IFFT Block for OFDM Using Synopsys Tools	A. R. Abdul Razak	LOP
110	Vidya Kumar	Hardware Implementation of Stegenography Algorithm	Jagadish Nayak	LOP
111	Vivek Radhakrishnan	Implementation of Reinforcement Learning Algorithm On Microcontroller for Navigation	V. Santhosh Kumar	LOP
112	Yusuf Imran	Treatment of Textile Dye Residues in Waste Water Using Advanced Photo-Catalytic Oxidation	B.G. Prakash Kumar	LOP
113	Zeba Tanvir Saith	Developing An Experimental Kit for QPSK Modulation	Jagadish Nayak	LOP
114	Lovita Elesha Miranda	Development of Mobile Apps for Engineers	C. Mallika Parveen	LP
115	Abhimanyu Sarin	Braking The Light Speed Barrier Using Quantam Entanglement	A.M. Surendra Kumar	SOP
116	Ahmad Hasan	Needs Analysis of Communication Skills Required By The Business Organizations in Dubai	Mubeena Rahman	SOP
117	Akshat Gaur	CSR Initiatives in The Banking Sector of UAE	Pushkala, M.	SOP
118	Akshay Raj Bhati	Implementation of Mobile Node and Home Node in Mobile IPv4	Susanna. Henry	SOP
119	Ankit Raj	Study of Inventory Problem for a Real Life Situation	Priti Bajpai	SOP
120	Anu Singhal	Penetration Testing Tool for Web Services Security	V. Santhosh Kumar	SOP
121	Archana Nageswaran	Study On Inventory Systems With Imperfect Quality	T. K. Datta	SOP
122	Arjun Mahendra	Studies On Energy Storage Salts	B. B. Gulyani	SOP
123	Chebrolu	E Business in Digital Age	Shazi Shah Jabeen	SOP



S.No.	Name	Topic	Instructor	Type
	Shashikant			
124	Deena Qurshid Faheem	Impacts of Intercultural Communicative Competence in Business Organizations	Shazi Shah Jabeen	SOP
125	Dhvaja Shekhar Shikare	Building And Maintenance of a Super cloud	Sujala D. Shetty	SOP
126	Indranil Banerjee	Design And Implementation of Dot Net Based Face Detection And Recognition	S. Vadivel	SOP
127	Jaideep Saraswat	Study And Applications of Divergence Theorem in Heat Transfer	Suhel A. Khan	SOP
128	Khyati Ajay Jain	Study And Analysis of Nature Inspirations for Aerodynamic Innovations	C. Mallika Parveen	SOP
129	Lubna Maryam	Review On Prevelence of Down's Syndrome	Gokhale Trupti Swarup	SOP
130	Malavika Karthik Vasudevan	Designing a Prototype Model for Contextual Data Handling Using The Cloud Resources	M. Madiajagan	SOP
131	Mariya Liyaqat	Study On The Prevelence of Thalassemia in UAE	Neeru Sood	SOP
132	Maya Mohan	Led Lighting for Typical Commercial Building Spaces	R. Gomathi Bhavani	SOP
133	Mecheri Silpa Subash	A Study On Some Aspects of High-Voltage Direct Current (HVDC) Systems	Sunil Thomas	SOP
134	Mobitha Begum	Leadership Issues & Challenges - An Empirical Study From U.A.E. Region	A. Srinivasa Rao	SOP
135	Mohamed Ebrahim	Carbon Sequestering of Trees in The Campus To Reduce Carbon Footprint	Geetha	SOP
136	Mohammed Al Hasan Mahmudulhassan	Current Trends in Solar Photo Catalytic Degradation for Wastewater Treatment	B. G. Prakash Kumar	SOP
137	Narayanan Aditya Venkiteshwaran	Aerodynamics And Braking System of a Supercar	R. Udayakumar	SOP
138	Osama Zeya Anwar	Management Practices in Various Organizations	A. Srinivasa Rao	SOP
139	Preethi J	HR Practices - U.A.E Region	A. Srinivasa Rao	SOP
140	Priyanka Chandwani	Medical Applications of Fiber Optics.	D.V. Prasad	SOP
141	Rachit Singh	Study On Condition Monitoring Methodologies of Gear Boxes Used in Ships	M. V. N. Sankaram	SOP
142	Rahul Rajendra Ramchandani	Study On Magic VLSI Cad Software	A. R. Abdul Razak	SOP
143	Rehan Rishi	Efficient Transmission of Video Over Wireless Sensor Networks	R. Anand Kumar	SOP
144	Reshma Regi	A Study On Representation of QOS in UDDI for Web Services Composition	S. Susila	SOP
145	Saif Mushtaq Sayyed	Surface Coating Technologies And Their Role in Corrosion Prevention	B. Muralidharan	SOP
146	Sanjna Elizabeth Sanjay	Laser Applications in Medicine	G. Amaranath	SOP
147	Sanya Ahmed	Medical Imaging - Pet Scans	R. Swarnalatha	SOP
148	Saurabh Agarwal	Application of Queueing Theory in Banking	Suhel A. Khan	SOP
149	Shaik Mohammad Sultan	Control Aspects in Metal Forming	V. Kalaichelvi	SOP

S.No.	Name	Topic	Instructor	Type
150	Shastri Sushrut Satyanand	Genetically Engineered Bacteria Expressing L-Rhamnose Operon for Applications in Microbial Fermentation Technology	S. Ramachandran	SOP
151	Sheikh Nayab Karim	Strategic Management - Corporate Governance Issues - in U.A.E.	A. Srinivasa Rao	SOP
152	Shilpa Ann Johnson	Micro Level Entrepreneurs - Issues And Challenges During Growth Phase	A. Srinivasa Rao	SOP
153	Shruthi Sukumar	Review of Quark Models	S. Karthiyayini	SOP
154	Shuchita Gupta	Pedagogical Potentials of Video Games	Shazi Shah Jabeen	SOP
155	Syeda Rabiya	Study of Principles of Electricity Generation Through Piezo Crystals	A. B. Chattopadhyay	SOP
156	Tanya Khanna	Design of RF Amplifier Circuits using ANSOFT Software	A. R. Abdul Razak	SOP
157	Vartik Chobisa	Bioelectric Study of The Heart, Brain And The Muscles	Kavita S. Jerath	SOP
158	Venkatesh S B	Models And Languages for Component Description And Reuse	S. Jeyalatha	SOP
159	Vineesha Satwani	A Study of Development of Markets To Control Externalities	Maneesha, B.	SOP
160	Yasir Sultan Azmi	Thermal Behaviour of Materials	Kavita S. Jerath	SOP
161	Zeheer Mohamed Abdul Rehman	Study And Design of Parabolic Disc Solar Heating System	C. Perisamy	SOP
162	Abhishek Sethu	Fabrication And Implementation of Windmill Power Generation in Bits, Pilani Dubai Campus	N. K. Miller Jothi	SP
163	Alvin George	Design of Solar Fuel Cell	B. B. Gulyani	SP
164	Aswathy Preetha Jayakumar	Nano Biotechnology- Applications in Medicine	Gokhale Trupti Swarup	SP
165	Ganesh Kumar S	Developing a Student Desktop Application/Tool To Aid Students in Study As Well As Other College Activities.	V. Santhosh Kumar	SP
166	Jonathan Samuel Justin	Design Optimization of Aircraft Structure Using ANSYS	R. Karthikeyan	SP
167	Jyotika Singh	Processing, Analyzing And Authenticating Audio Signals	R. Anand Kumar	SP
168	K Abinaya	Design And Analysis of a Si Nanowire Based FET for Gan Sensing	S. Swaminathan	SP
169	Lenvin D'souza	Simulation Studies On Flight Control System	V. Kalaichelvi	SP
170	Lubna Maryam	Biosensors - a Tool in Biological Applications	Neeru Sood	SP
171	Nasreen Fatima	Implementing Hacking Techniques Using Sql Injection	S. Susila	SP
172	Parul Seth	Stability Analysis in Digital Control Systems	A. B. Chattopadhyay	SP
173	Pooja N Shah	Airplane Design With Aerodynamic Shape Optimisation	A. M. Surendra Kumar	SP
174	Pranav Thiagarajan	Computer Aided Simulation And Analysis of IC Engine Combustion Chambers.	R. Udayakumar	SP
175	Prithvi Rajan Ravi Raj	Analysis of F1 Cars - a Case Study of Lexus LFA	C. Mallika Parveen	SP
176	Sarah Jibran	Data Analysis Using Hadoop	Sujala D. Shetty	SP
177	Seemant Mamtani	ANSYS Analysis On Steering of a Racing Car	C. Perisamy	SP

S.No.	Name	Topic	Instructor	Type
178	Shweta Kishor Dhansinghani	VLSI Implementation of Reed Solomon Coder Using Synopsys Tools	A. R. Abdul Razak	SP
179	Siddique Kulangarakath Mohdkasim	Design And Fabrication of Mechanical Sweeper	M. V. N. Sankaram	SP
180	Simen Sanjeetha	Mobile Application Student Portal	S. Susila	SP
181	Spoorthi Satish	Implementation of Fuzzy PID Controller To Control The Flow	R. Swarnalatha	SP
182	Sudarshan Santhanam	Design of a Configurable Web Application Using CMDBUILD for Workflow Operations	B. Vijayakumar	SP
183	Uttsavi Sanjay Kumar Trivedi	Design And Implementation of Windows Azure Cloud Based Hospital Management System	S. Vadivel	SP
184	Vaibhav Mahajan	Analysis of Switched LAN in Campus Environment	V. Santhosh Kumar	SP
185	Vishishtha Bothra	Implementation of Des Encryption Algorithm in VHDL	Jagadish Nayak	SP
186	Vivek Radhakrishnan	Simultaneous Localisation and Mapping On DSP	Jagadish Nayak	SP
187	Abhimanyu Dabas	Design And Simulation of MEMS Based Biosensor	K. K. Singh	SP
188	Aditi Choudhary	Computerised Evaluation of Consumer Responses To Advertising	Pushkala, M.	SP
189	Aditya Poonia	Design And Simulation of MEMS Based Bio Sensor Using Finite Element Methods	K. K. Singh	SP
190	Adonis Jacob D'mello	Restriction Enzymes App	Gokhale Trupti Swarup	SP
191	Akash Rai	An Artificial Neural Network Based Integrated Gas Sensor Array	S. Swaminathan	SP
192	Anomitra Banerjee	MEMS Based Water Harvester From Moist Air.	R. K. Mittal	SP
193	Ansh Parteek Singh	Design of Carbon Nano Tube Based Gas Sensor	K. K. Singh	SP
194	Arun Das	Modeling Energy Transport in Nanostructures	A. M. Surendra Kumar	SP
195	Atulya Prakash	Autobiographical Elements in Salman Rushdies Midnight Children	Lajwanti	SP
196	Deolalkar Kshiti Mangesh	Verilog Simulation of Traffic Control System	R. Mary Lourde	SP
197	Divya Raghunathan	Monte Carlo Simulation of Silicon Nanowire Thermal Conductivity	A. M. Surendra Kumar	SP
198	Fawad Abdul Waheed Kasu	Increasing Jurisdiction of The International Electronic Monetary System	Maneesha, B.	SP
199	Janani Ramasubbu	Study of Black Hole And Hawking Radiation in Laval Nozzle	A. M. Surendra Kumar	SP
200	Manasa Suresh	Study of Renewable Energy Potential in Indian Context	N. K. Miller Jothi	SP
201	Modi Dhaval Atul	Mechanical Calculator Application For Windows 8	C. Mallika Parveen	SP
202	Nitish Anand	A Study of Project Planning And Control With PERT/CPM	S. Baskaran	SP
203	Prince	Debye Temperature And Ultrasonic Velocity of Nano materials	S. Karthiyayini	SP

S.No.	Name	Topic	Instructor	Type
204	Priyanka Annette Rao	Psychological And Autobiographical Elements of Chetan Bhagat 's Two States And Five Point Someone	Lajwanti	SP
205	R Suryasarvajith	UV Absorbers - Their Role in Paint Industry	B. Muralidharan	SP
206	Rahul Bhatnagar	Comaprison of The Effects of Various Types of Fuels On The Efficiency of I.C Engine	Rajan Ramaswamy	SP
207	Rajarshi Sinha	Study & Characterization of Semiconductor Nano wires As Sensing Interfaces for Electrochemical & Biosensor Applications	R. Roop Kumar	SP
208	Rangapriya P	An Artificial Neural Network Based Integrated Gas Sensor Array	S. Swaminathan	SP
209	Sahapdheen Muhammad Madhih	Application of Evaporative Cooling Method in Condenser of Window-Air-Conditioners	A. M. Surendra Kumar	SP
210	Shashank Kumar	Interconnectivity Analysis Model : IT Outsourcing	Aqila, R.	SP
211	Shaurya Aggrawal	MEMS-Based Piezoelectric Energy Harvesters	S. Swaminathan	SP
212	Siddharth Swami	Design And Analysis of MEMS Based Heavy Metal Detection System for Water Quality Testing	S. Swaminathan	SP
213	Vakul Goyle	Cloud Computing in Healthcare	Jagadish Nayak	SP
214	Zeba Rahman	Simulation And Analysis of Cognitive Radio	R. Gomathi Bhavani	SP
215	Vaibhav Kasturia	Design of An Application of Speech Recognition Program	Shazi Shah Jabeen	SP
216	Nalini Angelica De Souza	Design of a Voice Synthesis Model Using Microcontroller	Shazi Shah Jabeen	SP
217	Raunaq Paul	Development of An Interactive Personal Organizer Application for Windows 8 Platform Based On The MVC Framework	B. Vijayakumar	SP
218	Swapnodeep Das	PROMELA Language	Susanna Henry	SP
219	Nabanita De	Simulation Studies On Face Recognition Using Back Propagation Neural Network	V. Kalaichelvi	SP
220	Reema Thakur	Private Cloud Computing - Security Aspect	Nand Kumar	SP
221	Anirban Musib	Competency Management Practices - An Empirical Study From U.A.E. Region	A. Srinivasa Rao	SP

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### SPECIAL LECTURES BY INVITED SCHOLARS - 2013

S.No.	Name	Topic	Date
1	Mr. Swaraj Jammalamadaka, (Alumnus of BPDC, Batch of 2009 - EEE), Technical Director, Transmission Access Planning, Midwest Independent System Operator, USA	Power Industry And Opportunities	February 7, 2013
2	Prof. Rajiv Gupta, Professor of Mechanical Engineering	Creativity	February 18, 2013
3	Prof. Rajiv Gupta, Professor of Mechanical Engineering	Lean Systems	February 18, 2013
4	Mr. Umit Sunar, Technical Evangelist, Microsoft	Latest Trends In Microsoft's Cloud Platform Windows Azure	February 27, 2013
5	Dr. M. Selvam, Founder, Publisher & Chief Editor SMART Journal of Business Management Studies and Professor and Head, Department of Commerce and Financial Studies, Bharathidasan University, Tiruchirappalli, TN, India	Role Of Security Exchanges – Personal Finance	March 3, 2013
6	Prof. Meenakshi Raman Head, Department of Humanities and Social Sciences BITS Pilani, Goa Campus	Facing Job Interviews	March 21, 2012
7	Swami Parthasarathy, Vedanta & Corporate Academy	The Dilemma Of Choice	March 23, 2013
8	Mr. K. Narasimhan, Vice President of a reputed Multi National company	What Corporate World Expects From A Fresh Graduate Engineer	April 22, 2013
9	Dr. Raghunathan, BITS Pilani, Pilani Campus, Rajasthan, India.	Entrepreneurial Skills	May 8, 2013
10	Dr. Mette Thomsen, Assistant Professor, Chemical Engineering, MASDAR & BITSian- Tanmay Chaturvedi Graduate at Masdar Institute	(i) Career Choices For Chemical/ Biotech Students; and (ii) Opportunities At Masdar Institute	May 22, 2013
11	Mr. Ram Gopal, Senior Executive Officer, Head-Middle East & Africa, Aditya Birla Sun Life Asset Management Company Limited	Wealth Management & Wealth Creation Through Small Savings	June 13, 2013
12	Dr. Anton Ravindran, CEO and Founder of RapidStart, Singapore President, Global Science and Technology Forum, Singapore	ICT Management	September 10, 2013
13	Dr. Gopal Iyengar, Director, Kirloskar Institute of Advanced Management Studies, Karnataka	Collaborative Processes Of Institute, Students And Alumni For Industry Readiness	September 17, 2013
14	Mr. Binod Shankar, Entrepreneur at	How To Prepare A Business Plan	October 10, 2013

S.No.	Name	Topic	Date
	U.A.E.		
15	Dr. S. G. Ghosh from Jamia Millia Islamia University, New Delhi, India	What Happens When A Massive Star Dies	October 29, 2013
16	Ms. Sandhya Prakash, an Entrepreneurial Business Development Strategist, CEO & Chief Gardener, Beacon at Beacon ES JLT, Dubai; Founder at MEVEG UAE, Board Member, BITSAA Intl. USA; Alumnus 87-91-MMS Pilani Campus of BITS	Art As A Messenger	November 10, 2013
17	Mr. Iyad Mourtada, Managing Director at <a href="#">Open Thinking FZ-LLC</a> VP CMA at IMA Dubai Chapter	Magical Kaleidoscope	November 10, 2013
18	Mr. Michael J Tolans, Chief Inspirational Officer – Leadership Team, World Class Academy of Excellence, UAE	How To Lie, Cheat And Steal Your Way To Success	November 10, 2013
19	Dr. Shivakumar Ranganathan Assistant Professor/ Mechanical Engineering, American University of Sharjah, UAE	Scaling And Homogenization In Spatially Random Composites	November 13, 2013
20	Mr. Surendra Bhargav, BITS Alumnus (1968-1973), A Consultant, Volunteer at Foundation for Excellence. Formerly Engineer at CISCO Systems, USA.	Foundation For Excellence Scholarship Program	November 17, 2013
21	Mr. Faisal Farooqui, Founder and CEO of MouthShut.com	Entrepreneurship As A Career Option For Young Men And Women	November 28, 2013
22	Dr. A. K. Mittal, Professor, IIT Kanpur	Introduction To IPR	December 18, 2013
23	Dr. B. Chandra, Professor, IIT Delhi	Data Mining And Its Applications	December 18, 2013
24	Prof. Ashraf Rizvi, Director of Jaipuria Institute of Management Studies, New Delhi	Improving Classroom Effectiveness	December 23, 2013

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**LIST OF FACULTY MEMBERS WHO ATTENDED VARIOUS CONFERENCES AND PRESENTED PAPERS – 2013**

S.No.	Author(s)	Title of the Paper	Conference	Proceedings Pages/ Paper ID.	Date & Place
1	Salma Sheriff and D J Shariff	Potentials of Adult Stem Cells in Regenerative Medicine	International Stem Cell Summit 2013 (ISCS 2013)	pp.14	4-6 January, 2013, Chennai, India.
2	Vijaya Ilango and Larina Melissa D'Souza	Effect of silver nanoparticles in waste water treatment	International Conference on Biotechnological Innovations towards Global Development	-	9-10 January, 2013, Tiruchirapalli, Tamilnadu, India
3	A. Srinivasa Rao	Nurturing Entrepreneurial Women Insight from a Developing Country	USASBE Conference	28	10-13 January, 2013, Sanfrancisco, California, USA
4	Niyati Parameswaran and M. Madijagan	Qmulus - A Cloud Driven GPS Based Tracking System for Real - Time Traffic Routing	International Conference on Software Design Engineering	-	14-15 January, 2013, Zurich, Switzerland
5	R. Udayakumar	Computer Modeling and Simulation of Diesel Engine processes	International Conference on Computer Applications Technology 2013	6	20-22 January 2013, Sousse, Tunisia
6	Ramesh Ponnusamy and R. Udayakumar	Computer Aided Design and Analysis of Disc Brake Rotors for Passenger Cars	International Conference on Computer Applications Technology 2013	5	20-22 January 2013, Sousse, Tunisia
7	Venkateswaran S. and C. Mallika Parveen	Optimization of Hydraulic fluid parameters in automotive torque converters	International Conference on Aerospace, Mechanical, Automotive and Materials Engineering	-	30-31 January, 2013, Dubai, UAE
8	Maneesha Bhagchandani and Priti Bajpai	Application Of Queuing Model In Dubai's Busiest Megaplex	International Conference on Mathematical Sciences and Statistics 2013 (ICMSS2013)		5-7 February, 2013, Kuala Lumpur, Malaysia

S.No.	Author(s)	Title of the Paper	Conference	Proceedings Pages/ Paper ID.	Date & Place
9	Kiran Menon, Reenu Anne Joy, Neeru sood and R. K. Mittal	A Review of Trends and Progress in Bio MEMS Research	International Conference on Emerging Technologies-Micro to Nano 2013	Pg. No. 143. Paper No. 173941229.	23-24 February, 2013, BITS Goa Campus, India
10	Hardeep Kumar, Adarsh venkataraman G., Reenu Anne Joy, Neeru Sood, K. K. Singh, S. Swaminathan and R. K. Mittal	Nano Sensing of H <sub>2</sub> S- Comparative Study of Different Sensing Methods	International Conference on Emerging Technologies-Micro to Nano 2013	Page No.345, Paper no.- 182111371	23-24 February, 2013, BITS Goa Campus, India
11	Adarsh Venkataraman G., Hardeep Kumar, R. K. Mittal, S. Swaminathan, K. K. Singh, Neeru Sood, Reenu Anne Joy and Trupti Gokhale	Deign and Simulation of Micro needles for Blood Alcohol Detection	International Conference on Emerging Technologies-Micro to Nano 2013	Page No.-147 Paper no.- 172811361	23-24 February, 2013, BITS Goa Campus, India
12	Seba Sara Varghese, Adarsh Venkataraman Ganesan and S. Swaminathan	A QUCS model for a MEMS capacitive pressure sensor	International Conference on Emerging Technologies-Micro to Nano 2013	Paper No: 192831358; pp.141-142.	23-24 February, 2013, BITS Goa Campus, India
13	Reenu Anne Joy, Kiran Menon, Neeru Sood and Trupti Gokhale	Micro sensors for Water Quality Assessment: A Review	International Conference on Emerging Technologies-Micro to Nano 2013	-	23-24 February, 2013, BITS Goa Campus, India
14	Deepan Kishore Kumar, R. Rama Jeyaraj, R. R. Varun Das and S. Swaminathan	A simplified micro cantilever based actuator model for the middle ear using COMSOL	International Conference on Emerging Technologies-Micro to Nano 2013	-	23-24 February, 2013, BITS Goa Campus, India
15	Deepan Kishore Kumar, R. R. Varun Das, N. N. Sharma and R. K. Mittal	A novel MEMS device for Dielectrophoretic manipulation of Bio-particles.	International Conference on Emerging Technologies-Micro to Nano 2013	-	23-24 February, 2013, BITS Goa Campus, India
16	Laya Rajendran	A study on the Impact of Non-aqueous solvent Mixtures on the Crystallinity of Polyester/Cotton composite fibre	International Conference	-	(4 <sup>th</sup> March 2013 presentation at BPDC) South Korea



S.No.	Author(s)	Title of the Paper	Conference	Proceedings Pages/ Paper ID.	Date & Place
17	Alamelu Mangai J., Jagadish Nayak and V. Santhosh Kumar	A Novel Approach for Classifying Medical Images Using Data Mining Techniques	2nd International Conference on Data Mining and Its Applications (ICDMA'13)	pp.41 - 45.	13-14 March, 2013, Dubai UAE.
18	Laya S. and B. Muralidharan	Dyeing Efficiency- an Investigation on Modified 100 % PET Spun Yarn through Solvent Pretreatments.	An International Conference On Recent Advances In Textile And Electrochemistry (Rates)	-	March 2013, Karaikudi, Tamailnadu, India.
19	Shantanu Somesh Chandra, Yashaan Nari Cooper, Jeffin George, Neman Jamil and Anand Kumar	Competition on International Autonomous Robotics Challenge	International Automated Robotic Challenge, Techfest	-	14-18 March, 2013, IIT Kanpur, India
20	Chirag Mehta and Pushkala Muralidharan	Managing risk in investments – Prediction of Instrument Prices	International Conference on Technology and Business Management	pp. 139-145	18-20 March, 2013, Dubai, UAE.
21	Deepan Kishore Kumar, Anomitra Banarjee, S. Swaminathan, and Mustafa Mahesri.	MEMS Modeling of the Posterior semicircular canal for treating benign paroxysmal positional vertigo	8th IEEE International Conference on Nano/ Micro Engineered and Molecular Systems, Suzhuo, China.	-	7-10 April, 2013, Peking University, China
22	Arshia Fathima, S. Karthiyayini	Ultrasonic Velocity and Debye Temperature of 3d Transition ion doped Nano crystalline CDO	International Congress on Ultrasonics 2013	8	2-5 May, 2013, Singapore
23	Aliakbar Eski and Sunil Thomas	Transient Analysis and Simulation of a DC Series Motor fed through a chopper subjected to a change in Duty Cycle	National Conference on Emerging Technologies	-	26 May, 2013, BIT, Ras- Al-Khaima, UAE
24	Aliakbar Eski and Sunil Thomas	Design And Analysis on a Linear Braking system for a Separately excited DC motor under Dynamic Braking	National Conference on Emerging Technologies	-	26 May, 2013, BIT, Ras- Al-Khaima, UAE
25	Ayush Chordia and M. Madijagan	Security and Privacy Issues in Cloud Computing	National Conference on Emerging Technologies-2013	-	26 May 2013 BIT, Ras Al Khaimah, UAE.

26	K. Teja Priyanka Yadav and Shazi Shah Jabeen	Role and Impact of Visual Communication in Microsoft PowerPoint Presentations	2nd Annual International Conference on Language, Literature and Linguistics 2013 (L3 2013)	208-212, ISSN: 2251-3566.	June 17-18, 2013, Singapore.
27	A Dalmia, K. Menon, Puskala Muralidharan, Prakash Kumar, Neeru Sood	Economic Analysis of Energy Production from Waste and Agricultural Sources	International congress on materials and Renewable Energy	6	1-3 July, 2013, London, UK
28	N. K. Millerjothi	Effect of EGR on the characteristics of HCCI engine using DEE as a ignition Enhancer	International Conference on Mechanical, Automotive and Aerospace Engineering 2013	4	2-4 July, 2013, Kuala Lumpur, Malaysia
29	Jagdish Nayak	Automated classification of Normal, Cataract and Post cataract optical eye images using SVM Classifier	International Conference of Signal and image Engineering 2013	4	3-5 July, 2013, London, UK
30	Mohsin Masoodi and Aquila, R., Zafar Alam	Risk management – Comparison of Islamic and Conventional banks in GCC	World Congress on Engineering 2013	-	3-5 July, London, UK
31	S. Venkateswaran and C. Mallika Parveen	Application of Taguchi Method in the selection of Hydraulic Fluids in Torque Converters	International Conference of Manufacturing Engineering and Engineering Management,	-	3-5 July, 2013 London, UK.
32	C. Mallika Parveen, Harsh Jagdish Saksena, Abhilash Saksena and Khyati Jain	Logistics Network Simulation Design	World Congress on Engineering 2013 (WCE 2013)	Vol. I, pp.438-442, ISBN: 978-988-19251-0-7	3-5 July, 2013, London, UK.
33	C. Mallika Parveen and Vasudev Krishnan	Comparative study of lean manufacturing tools used in manufacturing firms and service sector	World Congress on Engineering 2013 (WCE 2013)	Vol. I, pp.604-608, ISBN: 978-988-19251-0-7	3-5 July, 2013, London, UK.
34	C. Mallika Parveen and Anshul Singhal	Air Flow Optimization via a Venturi Type Air Restrictor	World Congress on Engineering 2013 (WCE 2013)	Vol. III, pp.438-442, ISBN: 978-988-19252-9-9	3-5 July, 2013, London, UK.
35	C. Mallika Parveen, Radhika Kapoor	Comparative Study on various KERS	World Congress on Engineering 2013 (WCE 2013)	Vol. III, pp.1969-1973, ISBN: 978-988-19252-9-9	3-5 July, 2013, London, U.K.

36	Dr. Jagadish Nayak	Automated Classification of Normal, Cataract and Post Cataract Optical Eye Images using SVM Classifier	World Congress on Engineering 2013 (WCE 2013)	-	3-5 July, 2013, London, U.K.
37	Susila Sampath Kumar, S. Vadivel	Web Service Selection through QoS Agent Web Service	World Congress on Engineering 2013 (WCE 2013)	-	3-5 July, 2013, London, U.K.
38	Nilaykumar Kiran Sangani, Tejas Vithani and M. Madijagan	Advantages of Components in Security & Privacy Architecture as a Service for Small and Medium Enterprises	World Congress on Engineering 2013 (WCE 2013)	Vol. II, pp.1226-1229, ISBN: 978-988-19252-8-2	3-5 July, 2013, London, U.K.
39	C. Mallika Parveen	Investigation of Management Philosophies in Lean and Green Supply Chain – Impact of Employee Empowerment in Improving Productivity	International Conference on Mechanical Engineering and Mechatronics 2013	7	8-9, August, 2013, Toronto, Canada
40	Pranav Bhatnagar and M V N Shankaram	Computer Aided Design and Analysis of a Single Stage Gearbox	International Conference on Mechanical Engineering and Mechatronics 2013	8	8-9, August, 2013, Toronto, Canada
41	C. Mallika Parveen and Venkateswaran Santhanam	Optimization of Automatic Transmission Fluid Parameters using Taguchi Method and its Application	2nd International Conference on Mechanical engineering and Mechatronics (ICMEM 2013)	-	8-9 August, 2013, Toronto, Canada.
42	C. Mallika Parveen and Radhika Kapoor	Comparative Analysis of Hybrid Vehicle Braking System – A Perspective of KERS	2nd International Conference on Mechanical engineering and Mechatronics (ICMEM 2013)	-	8-9 August, 2013, Toronto, Canada.
43	C. Mallika Parveen and Anshul Singhal	Optimization of Airflow via an Air Restrictor	2nd International Conference on Mechanical engineering and Mechatronics (ICMEM 2013)	-	8-9 August, 2013, Toronto, Canada.
44	Anomitra Banerjee and N. K. Millerjothi	Groundwater Remediation Through Nanoscale Iron Particles	15th International Conference on Environmental Remediation and Radioactive Waste Management.	-	8-12 September, 2013, Brussels, Belgium

45	Anomitra Banerjee and N. K. Millerjothi	Site Remediation Techniques In India: A Review	15th International Conference on Environmental Remediation and Radioactive Waste Management	-	8-12 September, 2013, Brussels, Belgium
46	Vijaya Illango and Avika Gupta	Carbon Nano tubes – A successful Hydrogen Storage Medium	International Conference on Sustainable Energy and Environmental Engineering	9	12-13, September, 2013, Singapore
47	J. Alamelu Mangai, Satej Wagle, V. Santhosh Kumar	An Improved k Nearest neighbor Classifier Using Interestingness Measure for Medical Image Mining	International Conference on Health and Medical Informatics	9	12-13, September, 2013, Singapore
48	Nilaykumar Kiran Sangani, Tejas Vithani and Nand Kumar	WI-FI Internet Browsing Architecture Via BYOD for Smart Campus	The World Congress Engineering and Computer Science	3 / Track paper no.ICCSA_96	23-25 October, 2013, University of California, Berkeley
49	Irshad Ahmed S, Salma Sheriff, Neeru Sood, Trupti Gokhale	Use of Alternate Medicine for A Healthy Tomorrow	International Conference on Biotechnology for Better Tomorrow 2013	6	11-12 November, 2013, Mauritius
50	Adarsh Venkataraman Ganesan, S. Swaminathan	Failure and Sensitivity Analysis of MEMS Based Piezo-resistive Finger Print Sensor	International Mechanical Engineering Congress & Exposition IMECE 13	6	15-21 November, 2013, San Diego, USA
51	Navy Yelloji, Navnith Ravindran, Anand Kumar	Modeling PM – BPSK Signals for Coherent Optical Transmission over Single – Mode Fiber	European Modeling Symposium 2013	5	20-22 November, 2013, Manchester, UK
52	Ashok Vydyanathan, Anand Kumar, R. K. Mittal, Maneesha	Optimization of a pressure transmitter manufacturing line	IEEE 7 <sup>th</sup> GCC2013	6	17-20 November, 2013, Qatar
53	N. V. Acharya, N.J. Raju, Anand Kumar, M. Tache, V.Beiu	Monte Carlo Analysis of the Noise Margins for CMOS Gates in Predictive Technology Models	IEEE 7 <sup>th</sup> GCC2013	6	17-20 November, 2013, Qatar
54	Ayush Chordia and B Vijaya Kumar	Dealing with Security Threats in Cloud Environment (A poster presentation)	Symposium on Information Security	-	15-16 November, 2013, BITS Pilani, Hyderabad campus.

55	R.Varun Das, V. Kalaichelvi, and R. Karthikeyan	Application of Fuzzy Logic Control Strategy for Temperature Control in Friction Stir Welding	ASME Gas turbine Conference	-	5-6 December, 2013, Bangalore, India.
55	Maneesha, Priti Bajpai	Multiple Regression Analysis using ANCOVA in University Model	3 <sup>rd</sup> Journal Conference on Applied Physics & mathematics (JCAPM 2013)	4	6-7 December, 2013, Sydney, Australia
56	Priti Bajpai, Maneesha	Measure of Performance of Queuing Models and Behavior of Customers in Real Life Applications	3 <sup>rd</sup> Journal Conference on Applied Physics & mathematics (JCAPM 2013)	5	6-7 December, 2013, Sydney, Australia
57	Swathika R., V. Kalaichelvi, Ganesh Ram R.K., R. Karthikeyan	Application of Fuzzy Logic for Charging Control of Lead-Acid battery in Stand-alone Solar Photovoltaic System	IEEE International Conference on Green computing, communication and conservation of Energy	-	12-14 December, 2013, Kavaraipeitai, Chennai, India.

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**LIST OF RESEARCH PUBLICATIONS – 2013****Journal Publications**

S.No.	Author(s)*	Title of the Publication	Journal	Vol.	Pages
1	Maneesha Bhagchandani and Priti Bajpai	A Study of Traffic Management at Toll Plaza on Delhi Gurgaon Expressway	American Journal of Mathematics and Sciences	Vol. 2, Issue No.1 Jan. 2013	-
2	Trupti Gokhale, N. Kameswara Rao and Shoaib Ismail	Isolation and characterization of salt-tolerant rhizobia native to the desert soils of United Arab Emirates	Emirates Journal of Food and Agriculture, United Arab Emirates University, UAE.	Vol.25, No.2, Feb. 2013	pp.102-108
3	Prateek Dhariwal and Maneesha Bhagchandani	Implementation of Six Sigma Methodology in Academics	International Journal of Sustainable Development and Green Economics	Vol. 2, Issue 1,2 Feb. 2013	pages 17-21
4	Pushkala Muralidharan and C. Madhavi	Impact of CSR initiatives on Consumer Behavior	International Journal of Research in Commerce and Management	Vol. 4, Issue 3 Mar. 2013	pp. 37- 41, ISSN 0976-2183.
5	R. K. Mittal and Maheshwar Dwivedy	Willingness of residents to participate in e-waste recycling in India	Environmental Development <a href="http://dx.doi.org/10.1016/j.envdev.2013.03.001">http://dx.doi.org/10.1016/j.envdev.2013.03.001</a>	Vol.6, Apr. 2013	pp.48-68
6	Tapan Kumar Datta	An Inventory model with Price and Quality dependent demand where some items produced are defective	Advances in Operations Research	Vol. 2013, Jun.2013	8 pages, paper Id 795078
7	A. Srinivasa Rao	World is Classroom : The Case of Univexcellence.com	Emerald Emerging Markets Case Studies	Vol.3, No.2, July 2013.	pp.1-9
8	J. Alamelu Mangai, V. Santhosh Kumar and S. Appavu Balamurugan	A novel approach for effective web page classification	International Journal of Data Mining, Modeling and Management	Vol. 5, No. 3, Aug. 2013	pp.233-245,
9	E. Thandapani and N. Kavitha	Oscillatory behavior of solutions of certain third order mixed neutral difference equations	Acta Mathematica Scientia	Vol.33B, No.1, 2013	pp.218-226
10	Priti Bajpayee	Quadratic Equations Vedic Analysis	Vigyan Shodh Patrika	Section 3, 2013 of BSNV Vigyan Parishad.	-
11	V. Kalaichelvi, R. Karthikeyan and D. Sivakumar	Analysis of gas Metal Arc Welding Process using GA tuned fuzzy rule based system	pp. 429-440. DOI: 10.3233/IFS-120650, IOS Press.	Vol.25, No.2, 2013	

S.No.	Author(s)*	Title of the Publication	Journal	Vol.	Pages
12	Joseph George and Jagadish Nayak	Steganography On Medical Images to Record Investigation Results	World Academy of Informatics and Management Sciences, www.waims. co. in	Vol 2 Issue 5. Aug.-Sept., 2013	-
13	R. Udayakumar and Prabhjot Singh	Use Of Alcohol As An Alternative Fuel In Diesel Engine	MECHANICA CONFAB Journal ISSN: 2320-2491	Vol. 2, No.5 (August-September 2013 edition under)	1-13
14	Kiran Menon, Reenu Anne Joy, Neeru Sood, R. K. Mittal	The Applications of BioMEMS in Diagnosis, Cell Biology, and Therapy: A Review	BioNanoScience, Springer	Volume 3, Issue 4, Dec. 2013	356-366
15	S. Thomas and A. B. Chattopadhyay	A 20-year survey on general modeling of synchronous motor and its stability studies. Part I: first literature review	Automatic Control (theory and applications) part of the Journal of Association for the advancement of Modeling & Simulation Techniques	Volume 68, Issue 2, No.1-2	-
16	S. Thomas and A. B. Chattopadhyay	A 20-year survey on general modeling of synchronous motor and its stability studies. Part II: literature review and case study	Automatic Control (theory and applications) part of the Journal of Association for the advancement of Modeling & Simulation Techniques	Volume 68, Issue 2, No.1-2	-

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**LIST OF HIGHER DEGREE DISSERTATIONS****Second Semester 2012-2013 (February 2013 to June 2013)**

S. No.	Name	Topic	Supervisor
1	Jarkko Lasanen	Study of Market Entry Strategy and its Success in International Business: Finnish Companies entering Norwegian Market	A. Srinivasa Rao

**Summer Term 2012-13 (June 2013 to August 2013)**

S. No.	Name	Topic	Supervisor
1	Cherish Mani	Methodology to Reduce Weld Distortion during the Construction of Storage Tanks	A. M. Surrendra Kumar
2	Eby Mathai	Optimization of weight of a crankshaft in an Engine	R. Uday Kumar
3	Faisal Salim	Semantic Feature Representation Framework Using Neural Net	Jagadish Nayak
4	G. B. Anuradha	Design and Develop an Android App for Virtual E-Medic System	M. Madijagan
5	Gopalakrishna Prabhu	Analyzing and Selection of right Projects for Tendering for a Construction Company Based in UAE	Anand Kumar
6	Henry Vivian	Design and Development of a analysis of a dual fuel combustion system for a diesel engine with an alternate fuel	R. Uday Kumar
7	KA Akshaya Krishna	Marketing Research Strategy for IT Services Company	A. Srinivasa Rao
8	Karish Manchanda	Numerical Analysis of Equity Valuation Methods.	Pushkala M.
9	Lallan Kumar Dubey	Design and analysis of Piping network for Sewerage Water Line using ASTM and GRPS Standards	Mallika Parveen
10	Nallamilli R Surendra R	Condition Monitoring and Diagnostic Analysis of Rotating Machinery in Cement Plant	M. V. N. Sankaram
11	Navnith Ravindran	Modeling PM/BPSK Signals for Coherent Optical Transmission over Single-mode Fibers (SMF)	Anand Kumar
12	Paulman K. M.	Development of Business and Sales in UAEs Oil and Gas Sector for Overseas Electrical Manufacturers	M. Pushkala
13	Reenu Anne Joy	Design and Simulation of MEMs Based Biosensor for Detection of Genetic Disorders using COMSOL	Neeru Sood



S. No.	Name	Topic	Supervisor
14	Salimnavaskhan K	Design of Architecture framework for Real-time Management Information System for Oil & Gas process industry	M. Madijagan
15	Salma Khaja	Isolation, Culture and expansion of Homogeneous & Undifferentiated Mouse MSCS by Establishing simple Culture Conditions	D. J. Shariff
16	Sasikumar K	Ultra-low Latency Feed for Financial Markets through Cloud Environment	M. Madijagan
17	Sornakumar.L	Dynamic Noise Margin Using CMOS Gates and Advanced Technology	Anand Kumar
18	Tejas Vithani	Modeling the Mobile application Development Life Cycle	Anand Kumar
19	Thaha Thansi	Adaptation of Camelid cell lines for bioreactor applications	D. J. Shariff & Abi George (Co-supervisor)
20	Vamsi Krishna Peddada	Feasibility Study of implementing a Windmill for Power Generation in BPDC	Miller Jothi
21	Vidhya Shree R	Application of Cloud in Telecom Sector Using Machine to Machine and Mobile Device Management	Sulala D. Shetty

#### First Semester 2013-2014 (September 2013 To January 2014)

S. No.	Name	Topic	Supervisor
1	Cherish Mani	Study on corrosion of fuel storage tank plate	R. Karthikeyan
2	Eby Mathai	Optimization of weight of a crankshaft in a pump	R. Uday Kumar
3	Faisal Salim	Classification of Natural Images using Decision Tree Guided Neural Network Hybrid Model	B. Vijaya Kumar
4	G.B. Anuradha	Secure transmission of confidential data over networked systems	M. Madia Jagan
5	Gopalakrishna Prabhu	Analysis and Managing the Risks associated with Construction Projects prior to Submission of Tenders	Anand Kumar
6	Henry Vivian	Heat release and combustion analysis of a dual fuel diesel engine operated with diethyl ether and butnol	R. Uday Kumar
7	KA Akshaya Krishna	Analysis of IT services market in U.A.E. for setting up new firm	M. Madia Jagan
8	Karish Manchanda	Comparative analysis of Islamic, Ethical/SRI and Conventional Mutual Funds	M. Pushkala
9	Lallan Kumar Dubey	Design and analysis of Pipe network Using GRPS and ASTM Standards	C. Mallika Parveen
10	Nallamilli R Surendra R	Design Optimization and Analysis of Heat Exchanger	C. Periasamy

S. No.	Name	Topic	Supervisor
11	Navnith Ravindran	Optimum VLSI Design of an ALU	R. Mary Lourde
12	Paulman K.M.	Survey on Customer satisfaction for overseas manufacturers in UAE	M. Pushkala
13	Reenu Anne Joy	Design and simulation of nanowire based sensor for the detection of Thalassemia and its comparison with silicon based micro cantilever sensor	Neeru Sood & Radha Maheswari (Co-supervisor from USUHS, USA)
14	Salimnavaskhan K	Design & developing an Architectural framework for real-time MIS for a Oil & Gas process industry	M. Madijagan
15	Salma Khaja	Culture and expansion of Mesenchymal cell lines from different mammalian tissues by establishing simple culture conditions	D. J. Shariff
16	Sasikumar K	Analyzing & designing a prototype architectural model for Information security in a Distributed Computing environment	M. Madia Jagan
17	Sornakumar.L	Study and analysis of 3D nanowire sensor array for multiple gas sensing	S. Swaminathan
18	Tejas Vithani	Modeling the Mobile application testing Life Cycle	Anand Kumar
19	Thaha Thansi	Adaptation of Canelid cell lines for bioreactor applications	D. J. Shariff & Abi George (Co-supervisor)
20	Vamsi Krishna Peddada	Design and implementation of a prototype windmill at BPDC	M. Miller Jothi
21	Vidhya Shree R	Identifying and Addressing Challenges in Managed Service Providers (MSP)	V S.anthosh Kumar

**Both During Summer Term 2012-13 (June 2013 to August 2013) & First Semester 2013-2014 (September 2013 To January 2014)**

S. No.	Name	Topic	Supervisor
1	Breettus, V.	Mitigation of risk in the operation of Sewer disposal pump	Miller Jothi
2	Chandu Rajan	A study on the improvement in organizational performance using an E-business application	Sujala D. Shetty & R. Uday Kumar
3	Elayat Shyam Chand	Design, Analysis and Topology optimization of a portable jib Crane	M. V. N. Sankaram
4	Fatiha Fatima	Issues & challenges faced by women entrepreneurs at SMEs in Sharjah	A. Srinivasa Rao
5	Hardeep Kumar	Design and simulation of MEMS based integrated gas sensing system	K. K. Singh
6	Irshad Ahmed S	Analysis of alternate medicine to determine the bioactive compounds	Trupti G. Swaroop
7	Joseph George	Integrated storage system for Medical records	Jagdish Nayak

<b>S. No.</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
8	Lijo Lingson	Leadership issues and challenges: A study from medium and large organizations from UAE	A. Srinivasa Rao
9	Nanda Kumar. P.	HVAC & Design and Analysis using CFD Tool	A. M. Surendra Kumar
10	Nilay Kumar Kiran Sangani	Analysis of an IIS hosted Private cloud web application: Hacker's perspective	Nand Kumar
11	Rathnakar Jois	Architecture for competency assessment using data mining	Jagdish Nayak
12	S. Rajeswari	Evaluating the Barley Accessions for Salinity Tolerance and Study the candidate genes involved in salt Tolerance	Neeru Sood & Khaled Masmoudi (Co-supervisor from ICBA, UAE)
13	Varghese Rony K.S.	A study on Oil field waste management	B. Muralidharan

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### LIST OF FIRST DEGREE THESES

#### Second Semester 2012-2013 (February 2013 to June 2013)

S.No.	Name	Topic	Supervisor
1	Ahmed A. Padela	Upconversion - Future scope for the present energy resource problems	R. Amaranath
2	Akshay Chawla	Design and implementation of suspicious e-mail detection framework using data mining techniques	V. Santhosh Kumar
3	Dey Shramana Subrata Kumar	Optimization of Fermentation Kinetics Using Substrates Derived from Processed Biomass Sources	S. Ramachandran
4	Ali Akbar Eski	Development of a unique equivalent circuit model of a 3 phase salient pole synchronous machine taking saliency into account	A. B. Chattopadhyay
5	Nilay Ketan Doshi	Sensing of Surface Acoustic Waves by Electron-Photon interactions in Quantum Devices	K. K. Singh
6	Satej Milind Wagle	Design and Implementation of Data mining techniques for improving medical image classification	J. Alamelu Mangai
7	Priya Bajju Parappat	Object recognition for obstacle avoidance by aerial robots using image recognition techniques	Anand Kumar
8	Akshay Dalmia	Economic Assessment of Biofuel Production from Waste and Agricultural Sources	Neeru Sood and M. Pushkala
9	Balasubramanian S	A Study on various power tools to improve its efficiencies	C. Periasamy
10	Chindu .K. Mohasin	Factors influencing the investor behavior in the construction industry - Dubai	Aqila, R.
11	Cijal Rahim Valiyakath	Composite Materials- Development and application on modern aircrafts	Muralidharan, B.
12	Himanth Prathap	Mitigation of risks in the operation of dry gas seals installed in centrifugal compressors	N. K. Miller Jothi
13	Md. Rahebul Hasan	Vibration analysis and ride quality of elevator	R. Udaya Kumar
14	Mohamadh Jameel M G B	Automation and development of BPDC Research and Consultancy activity tools	G. Vijaya
15	Patel Niravkumar Mahendrabhai	Analysis of Lean and Green supply chain	C. Mallika Parveen
16	Prabhjot Singh	Use of Alcohol as an alternative fuel in diesel engines	R. Udaya Kumar
17	Senthilkumar M	Study on Ultrasonic inspection of TIG welded specimens	R. Karthikeyan
18	Umasankar P	Study and analysis of voltage upgradation from 6.6KV to 11KV distribution power system network	K. Nithyananthan

S.No.	Name	Topic	Supervisor
19	Syed Aslam Ahamed S	Design of flow analysis of the Gas turbine	C. Periasamy
20	Khan Farhan Ayub	Effectiveness and Implementation of Negotiation Techniques	Shazi S. Jabeen
21	Manojkumar. V.V	Analysis and Design of a Power System Protection Scheme	A.B. Chattopadhyay
22	Chaparala Ramanuja Prasad	Study and Design of hybrid solar desiccant cooling system	A. M. Surendra Kumar

#### First Semester 2013-2014 (September 2013 to January 2014)

Sl. No.	Name	Topic	Supervisor
1	Adarsh Venkataraman G	Theoretical Modeling & Numerical Simulation of Interaction Between Faraday Waves & Cell Encapsulating Hydrogels	S. Swaminathan
2	Anshul Singhal	Design and Optimization of Formula SAE Car for FSAE – Michigan 2014	C. Mallika Parveen
3	Bhargav Mallampati	Analysis of Routing in VLSI circuit implemented using Synopsys tools	A. R. Abdul Rajak
4	Deepan Kishore Kumar	Microfluidic Platform for Multiple Pathogen Detection	S. Swaminathan
5	Menon Shweta Ramesh	Parametric study and the flow stability in a Boiling channel	C. Periasamy
6	Nirmohi Viraj Devasthale	Attitude Control of Small Satellites	R. Mary Lourde
7	Pandit Shruti Niranjana	Design of State Feedback Control System with Specific Application	A. B. Chattopadhyay
8	Raghav Shrivastav	Study and Design of Hybrid Electric Vehicles and Ecological Vehicles	A. M. Surendra Kumar
9	Rohitash Gupta	Application of and Security issues in Cloud Computing	S. Nand Kumar
10	Sagar Kamra	Design and Analysis of an intake manifold of an FSAE car	R. Udayakumar
11	Suchita Gera	Development of Pretreatment Methods for Biomass Based Substrates for Fermentation Process	S. Ramachandran
12	Vasudevan R	Temperature Control Using Microcontroller	R. Swarnalatha
13	Vivin Karthik	Estimation of Above Ground Biomass of Trees in BPDC	K. Geetha
14	Zubair Ahmed N	Study of STEM cells in tissue repair, regenerative medicine and related diseases	D. J. Shariff

Annexure B4-15

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**DETAILS OF DISTRIBUTION OF PS I STUDENTS AND FACULTY OVER PRACTICE  
SCHOOL- I STATIONS DURING THE SUMMER TERM 2012-2013**  
(11.06.2013– 07.08.2013)

S.No.	STATION	No. OF STUDENTS	No. OF FACULTY
<b>I. Stations in United Arab Emirates (UAE)</b>			
<b>la. Stations at Abu Dhabi</b>			
1	Automech Engineering Co LLC	3	1
2	DBA Infotech	4	1
3	Sibca Electronics	4	1
4	Star cement LLC (Aditya Birla Group)*	2	1
5	Universal Voltas LLC*	5	1
<b>lb. Stations at Al Ain</b>			
6	NAEL General Contracting Est.	3	1
<b>lc. Stations at Dubai</b>			
7	Adapt Middle East LLC	2	1
8	Al Faizan Electrical Installations LLC	4	1
9	Al Jamaliya Technical Services Co. LLC	4	1
10	Al Khaleej Metal Coat LLC	3	1
11	Al Khaleej Sugar Co.	3	1
12	CEM Business Solutions	5	1
13	Constellation Marine Services	2	1
14	Cosmos Star Consultants	2	1
15	Dubai Wire FZE	6	1
16	Eastern Biotech & Life Sciences FZ LLC	2	1
17	Emerson Process Management FZE*	8	1
18	Emirates Glass LLC	3	1
19	Emirates Industrial Gases Co. LLC	3	1
20	E-Pos International LLC	2	1
21	ETA Cars LLC*	6	1
22	ETA Mechanical & Electrical*	5	1
23	ETA MELCO LLC	2	1
24	ETA Star Portal LLC*	5	1
25	Fedex Express	2	1
26	Fischer Fixing Systems	5	1
27	Frequency Communications	3	1
28	Globelink Weststar Shipping LLC*	2	1

S.No.	STATION	No. OF STUDENTS	No. OF FACULTY
29	Granteq LLC	3	1
30	Gulf Wireless and Television Co. LLC*	4	1
31	International Center for Biosaline Agriculture (ICBA)	1	1
32	Infratech Control BM LLC*	5	1
33	Intertec Systems	3	1
34	Kingsmen ME LLC	3	1
35	L & T Electrical and Automation FZE*	7	1
36	Metadata Technologies FZ LLC*	2	1
37	Miltech Rugged Computing Solutions LLC	4	1
38	Oasis Investment Company LLC	2	1
39	Prime Medical Center	3	1
40	Q- People Solutions	2	1
41	Reliance Facilities Management LLC	2	1
42	Roto Packing Materials Industry Co. LLC	3	1
43	Safedata Middle East LLC	3	1
44	Sanbook Quality Consultancy*	6	1
45	Scan Technology LLC	4	1
46	Scientechnic*	2	1
47	Solutions Middle East LLC*	3	1
48	Spira Power Gasket Manufacturing LLC	5	1
49	Star Cement LLC (Aditya Birla Group) *	2	1
50	Steinweg-Sharaf FZCO	4	1
51	Tech Robotix FZCO*	3	1
52	Technofab Steel Manufacturing LLC	4	1
53	Teknoware Middle East FZCO*	2	1
54	Telematics Networking & Communications LLC*	3	1
55	Topnet Distribution FZCO*	2	1
56	Transgulf Electro Mechanical LLC	6	1
57	Twinvey Electric Consultancy	2	1
58	United Diesel LLC	4	1
59	V3 media Solutions FZ LLC	2	1
60	Verger et Delporte Ltd.	5	1
61	Young and Mubeen Controls FZE*	5	1
62	Zio Technologies LLC*	2	1
<b>Id. Stations at Sharjah</b>			
63	Ace Industries FZC	5	1
64	Al Shabiya Group of Companies	7	1
65	Classic Printing Press	5	1

S.No.	STATION	No. OF STUDENTS	No. OF FACULTY
66	Cluttons	4	1
67	Conscillium Middle East FZ LLC	2	1
68	Corrosion Technology Services	3	1
69	GISTech*	2	1
70	Glassco International FZE	3	1
71	L & T Construction (ECC)	4	1
72	Lamprell Energy Ltd	3	1
73	Petrofac International*	5	1
74	Safeenat Al Boom Engineering LLC	2	1
75	Sharjah General Contracting	4	1
76	WS Atkins & Partners Overseas	2	1
<b>II. Stations in India</b>			
<b>Ila. Stations at Chandigarh</b>			
77	ESS ESS Bathroom Prod. Ltd.	7	1
78	United Gears Ltd.	5	1
<b>Ilb. Stations at Delhi</b>			
79	Fortis Escort Heart Institute	6	1
80	Microtek International Pvt. Ltd.	6	1
81	Okaya Power Limited	6	1
<b>Ilc. Stations at Hyderabad</b>			
82	Agrigold Projects Ltd	3	1
83	eLogic Solutions India, Pvt. Ltd.	3	1
84	SRR Projects Pvt. Ltd.	4	1
<b>Ild. Stations at Mumbai</b>			
85	Dharshan Chemicals	6	1
86	Jindal South West (JSW) Steel, Dolvi Limited	5	1
87	TATA Consultancy Services	4	1
88	Aditya Birla – UltraTech Cement Limited	5	1
<b>III. Station at Denmark</b>			
89	Blueprinter ApS, Copenhagen	1	1

#### Summary

Total number of students : 325

Total number of Stations : 89

Total number of Faculty : 23\*\*

#### Note:

\* - also PS II station

\*\* - Each PS I Faculty was allotted more than one station to monitor.



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**SOME PRACTICE SCHOOL- II STATISTICS**

Statistical Details of the Distribution of Students & Faculty over Practice School-II during the year 2013:

S.No.	Name of the PS Station	Second Semester 2012-13 03.02.2013 – 15.07.2013		First Semester 2013-14 04.08.2013 – 09.01.2014		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
<b>A. Stations at Abu Dhabi</b>						
1	Central Motors & Equipment LLC (BOSCH)	5	1	-	-	5
2	Honeywell Middle East Ltd.	-	-	2	1	2
3	Star Cement Co. LLC ( Aditya Birla Group)*	2	1	2	1	4
4	Universal Voltas LLC*	3	1	3	1	6
<b>B. Stations at Ajman</b>						
5	Elfit Arabia	2	1	3	1	5
<b>C. Stations at Dubai</b>						
6	Adapt Middle East LLC*	-	-	2	1	2
7	Al Tayer Motors LLC	3	1	-	-	3
8	AZBIL Corporation	3	1	2	1	5
9	Central Motors & Equipment LLC (BOSCH)	-	-	2	1	2
10	Cluttons	2	1	2	1	4
11	Doosan Heavy Industries & Construction Co. Ltd.	4	1	-	-	4
12	DULSCO	2	1	-	-	2
13	ECS ME LLC	2	1	2	1	4
14	Emerson Process Management FZE*	7	1	9	1	16
15	Energy Automation JLT	-	-	2	1	2
16	ETA Cars LLC*	4	1	4	1	8
17	ETA Mechanical & Electrical*	3	1	3	1	6

S.No.	Name of the PS Station	Second Semester 2012-13 03.02.2013 – 15.07.2013		First Semester 2013-14 04.08.2013 – 09.01.2014		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
18	ETA Star Portal FZ LLC*	4	1	5	1	9
19	Gulf Wireless & Television Co. LLC*	3	1	-	-	3
20	Infinique Middle East FZCo	-	-	2	1	2
21	Infratech Controls BM LLC*	6	1	5	1	11
22	Innosoft Solutions	-	-	3	1	3
23	L&T Electrical & Automation FZE*	8	1	5	1	13
24	Lucy Switchgear FZE	2	1	6	1	8
25	MEOS Workshop Services	-	-	4	1	4
26	Metadata Technologies FZ LLC*	2	1	-	-	2
27	Microsoft Gulf FZ LLC	4	1	-	-	4
28	MSD (Merck, Sharp & Dhome)	3	1	3	1	6
29	Nucleus Exhibition LLC	2	1	-	-	2
30	Oriental Dynamic Solutions	2	1	-	-	2
31	Paramount Computers Systems FZ LLC	9	1	2	1	11
32	Proserv Middle East	-	-	2	1	2
33	RAS Infotech Limited	2	1	-	-	2
34	Redcube Systems LLC	2	1	2	1	4
35	Redington Middle East LLC	-	-	4	1	4
36	Sanbook Quality Consultancy Services*	4	1	6	1	10
37	Sciencetech*	4	1	7	1	11
38	Siemens LLC	4	1	3	1	7
39	Solutions Middle East LLC*	8	1	4	1	12
40	Spira Power Gasket Manufacturing LLC*	-	-	3	1	3
41	Star Cement Co. LLC ( Aditya Birla Group)	2	1	2	1	4

S.No.	Name of the PS Station	Second Semester 2012-13 03.02.2013 – 15.07.2013		First Semester 2013-14 04.08.2013 – 09.01.2014		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
42	TechRobotix FZCO*	-	-	3	1	3
43	Teknoware Middle East FZCO*	4	1	-	-	4
44	Telematics Networking & communications LLC. *	3	1	-	-	3
45	Thyssen Krupp Elevator (UAE) LLC	3	1	3	1	6
46	Topnet Distribution FZCO*	4	1	-	-	4
47	Young and Mubeen Controls FZE*	-	-	6	1	6
48	Zio Technologies LLC*	4	1	3	1	7
<b>D. Ras Al Khaimah</b>						
49	Kautilya Project Consultancy FZE	5	1	2	1	7
<b>E. Sharjah</b>						
50	Central Motors & Equipment LLC (Bosch - Power Tools)	5	1	3	1	8
51	ESRI Global INC	3	1	2	1	5
52	GISTEC*	3	1	3	1	6
53	Petrofac International*	3	1	3	1	6
54	United Intl. Welding Material Trading LLC	2	1	-	-	2

**Summary:**

Total No. of PS II stations in Semester II – 42

Total No. of PS II stations in Semester I – 41

Common Stations in Both Semesters – 28

Total No. of students in Semester II – 152

Total No. of students in Semester I – 134

\* also PS I stations

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## PRACTICE SCHOOL STATISTICS

### PRACTICE SCHOOL- I

Session	No. of students who attended PS- I	No. of faculty who supervised PS- I	No. of PS- I Stations
Summer 2002	53	04	07
Summer 2003	102	10	24
Summer 2004	94	14	26
Summer 2005	155	21	49
Summer 2006	260	28	81
Summer 2007	256	32	91
Summer 2008	357	40	117
Summer 2009	357	40	126
Summer 2010	457	49	139
Summer 2011	343	32	89
Summer 2012	294	28	76
Summer 2013	325	23	89

### PRACTICE SCHOOL II

Year	Semester	Period (Duration)	No. of Stations	No. of Students	No. of Faculty
2003-04	I	July 2003 to January 2004 (09.07.2003 to 18.01.2004)	17	27	16
	II	February 2004 to July 2004 (09.02.2004 to 22.07.2004)	16	26	13
2004-05	I	August 2004 to January 2005 (02.08.2004 to 10.01.2005)	27	43	17
	II	February 2005 to July 2005 (01.02.2005 to 14.07.2005)	28	39	26
2005-06	I	July 2005 to January 2006 (24.07.2005 to 05.01.2006)	30	47	30
	II	February 2006 to July 2006 (02.02.2006 to 16.07.2006)	31	43	27
2006-07	I	July 2006 to January 2007 (31.07.2006 to 12.01.2007)	40	76	40
	II	February 2007 to July 2007 (01.02.2007 to 15.07.2007)	45	75	38
2007-08	I	August 2007 to January 2008 (1.08.2007 to 15.01.2008)	59	116	50
	II	February 2008 to July 2008 (3.02.2008 to 17.07.2008)	57	115	50

Year	Semester	Period (Duration)	No. of Stations	No. of Students	No. of Faculty
2008-09	I	August 2008 to January 2009 (3.08.2008 to 15.01.2009)	67	140	52
	II	February 2009 to July 2009 (01.02.2009 to 15.07.2009)	61	133	51
2009-10	I	August 2009 – January 2010 (02.08.2009 to 14.01.2010)	73	155	60
	II	January 2010 to July 2010 (31.01.2010 to 14.07.2010)	59	163	52
2010-11	I	August 2010 to January 2011 (1.08.2010 to 13.01.2011)	71	170	65
	II	February 2011 – July 2011 (30.01.2011 to 14.07.2011)	66	199	59
2011-12	I	August 2011 – January 2012 (1.08.2011 to 12.01.2012)	71	204	62
	II	February 2012 – July 2012 (1.02.2012 to 12.07.2012)	76	242	60
2012-13	I	August 2012 – January 2013 ( 1.08.2012 to 10.01.2013)	40	144	38
	II	February 2013 – July 2013 ( 3.02.2013 to 15.07.2013)	42	152	40
2013-14	I	August 2013 – January 2014 (4.08.2013 to 9.01.2014)	41	134	39

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### FACILITIES AVAILABLE AT PS I STATIONS DURING THE YEAR 2012-13

S.No.	STATION	Out of pocket allowance in AED & Others Facilities
<b>I. Stations in United Arab Emirates (UAE)</b>		
<b>la. Stations at Abu Dhabi</b>		
1	Automech Engineering Co. LLC	1000
2	Star Cement LLC (Aditya Birla Group)	1500
<b>lb. Stations at Dubai</b>		
3	Adapt Middle East LLC	750
4	CEM Business Solutions	1500
5	Cosmos Star Consultants	500
6	Emerson Process Management FZE	550
7	E-Pos International LLC	1000
8	Fischer Fixing Systems	1000
9	Frequency Communications	1000
10	Globelink Weststar Shipping LLC	1000
11	Gulf Wireless and Television Co. LLC	1000
12	Infratech Control BM LLC	1500
13	Intertec Systems	1000
14	Kingsmen ME LLC	800
15	L & T Electrical and Automation FZE	2000
16	Metadata Technologies FZ LLC	1200
17	Q- People Solutions	750
18	Scientechnic	2000
19	Solutions Middle East LLC	1000
20	Spira Power Gasket Manufacturing LLC	1500
21	Tech Robotix FZCO	1000

S.No.	STATION	Out of pocket allowance in AED & Others Facilities
22	Topnet Distribution FZCO	1000
23	Transgulf Electro Mechanical LLC	1000
24	Young and Mubeen Controls FZE	1000
25	Zio Technologies LLC	1500
<b>Ic. Stations at Sharjah</b>		
26	Cluttons	1500
27	GISTech	1500
28	Lamprell Energy Ltd	1500
29	Petrofac International	4550

#### FACILITIES AVAILABLE AT PS II STATIONS DURING THE YEAR 2012-13

S.No.	Name of the PS Station	Total No. of Students No. of Students
<b>Ia. Stations at Abu Dhabi</b>		
1	Central Motors & Equipment LLC (BOSCH)	2500
2	Honeywell Middle East Ltd.	1500
3	Star Cement Co. LLC ( Aditya Birla Group)	1500
<b>Ib. Stations at Dubai</b>		
4	Adapt Middle East LLC	750
5	Al Tayer Motors LLC	1000
6	AZBIL Corporation	1000
7	Central Motors & Equipment LLC (BOSCH)	2500
8	Cluttons	1500
9	DULSCO	1500
10	ECS ME LLC	2000
11	Emerson Process Management FZE	550
12	Energy Automation JLT	1500
13	Gulf Wireless & Television Co. LLC	1000
14	Infinique Middle East FZCo	1000
15	Infratech Controls BM LLC	1000
16	Innosoft Solutions	1000
17	L&T Electrical & Automation FZE	1500+Lunch

<b>S.No.</b>	<b>Name of the PS Station</b>	<b>Total No. of Students No. of Students</b>
18	Lucy Switchgear FZE	1500
19	Metadata Technologies FZ LLC	1200
20	Microsoft Gulf FZ LLC	1500
21	MSD (Merck, Sharp & Dhome)	2000
22	Nucleus Exhibition LLC	1500
23	Oriental Dynamic Solutions	750
24	Paramount Computers Systems FZ LLC	1500
25	Proserv Middle East	3550
26	RAS Infotech Limited	1500
27	Redcube Systems LLC	1200
28	Redington Middle East LLC	1000
29	Sanbook Quality Consultancy Services	250 + food & travel allowance
30	Scientechinc	2000
31	Siemens LLC	3500
32	Solutions Middle East LLC	500
33	Spira Power Gasket Manufacturing LLC	1500
34	Star Cement Co. LLC (Aditya Birla Group)	1000
35	TechRobotix FZCO	1000
36	Teknoware Middle East FZCO	750
37	Telematics Networking & communications LLC.	750
38	Thyssen Krupp Elevator (UAE) LLC	1500
39	Topnet Distribution FZCO	1000
40	Young and Mubeen Controls FZE	1000
41	Zio Technologies LLC	1000
<b>D. Ras Al Khaimah</b>		
42	Kautilya Project Consultancy FZE	500
<b>E. Sharjah</b>		
43	Central Motors & Equipment LLC (Bosch - Power Tools)	2500
44	ESRI Global INC	3500
45	GISTEC	1500
46	Petrofac International	4550
47	United Intl. Welding Material Trading LLC	1500



*Annexure B4-19  
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## **LIST OF PROJECT ASSIGNMENTS FOR PS II SECOND SEMESTER 2012-13**

- 1 BOSCH (Central Motors), Abu Dhabi, UAE**
  - 1 Sales and Marketing of BOSCH Power Tools
  - 2 Market Survey in LIWA (Automotive Department)
  - 3 Market Survey in Al Ain (Automotive Department)
  - 4 Market Survey in AL Ruwais (Automotive Department)
  - 5 Market Survey in Abu Dhabi
- 2 Star Cement Co. LLC, Abu Dhabi, UAE**
  - 6 Oil Well Cement and API Standards & Testing Measures
  - 7 Alternative Fuels and Energy Conservation in Cement Industry
- 3 Universal Voltas LLC, Abu Dhabi, UAE**
  - 8 Computer Aided Maintenance Management Systems - A General Overview
  - 9 A Glimpse at the Web Application Interface of the FMMS Software in an Organization
  - 10 Windows Application of Computer Aided Maintenance Management System
- 4 Elfit Arabia, Ajman, UAE**
  - 11 Process flow and Datasheet for procurement at Elfit Arabia
  - 12 Costing, Process flow and Design of Products at Elfit Arabia
- 5 Al Tayer Motors LLC, Dubai, UAE**
  - 13 An Integrated Study of Automobile Engine and Air Condition System
  - 14 Overheating and Misfiring in Internal Combustion Engines
  - 15 Fuel, Ignition and Exhaust Systems in Automobiles
- 6 AZBIL Corporation, Dubai, UAE**
  - 16 Wireless BMS with no change in the Upper-layer Protocol
  - 17 Energy Optimization in Buildings and HVAC operation sequence
  - 18 LonWorks & Graphic Generator for DDC's
- 7 Cluttons LLC, Dubai**
  - 19 Real Estate Sector in Dubai
  - 20 Integrated Real Estate Solution for Property Management Operations
- 8 Doosan Heavy Industries & Construction Co. Ltd., Dubai, UAE**
  - 21 A Study of Combined Cycle Power Plant at Jebel Ali 'M' Station
  - 22 A Study of Heat Recovery Steam Generators and its Adaptation at the Jebel Ali 'M' Power Station
  - 23 A Study and Analysis of The Desalination Plant at The Jebel Ali 'M' Power Station
  - 24 A Study of Steam Turbines and its Various Auxiliaries at the Jebel Ali 'M' Power Station
- 9 DULSCO LLC, Dubai, UAE**
  - 25 Study of Green Computing and the Scope for Energy Conservation Through It's Implementation
  - 26 Study of Food Safety and Hygiene In Employee Accommodations
- 10 ECS ME LLC, Dubai, UAE**
  - 27 Design Considerations for Mobile Application Development Using Oracle
  - 28 An Oracle Solution Proposal Based on Customer Product Requirement Analysis
- 11 Emerson Process Mgt. , Dubai, UAE**
  - 29 Project Order Execution and Financial Considerations Between Emerson Process Management & ENPPI
  - 30 Quality Management Systems
  - 31 Understanding Sharepoint and Planning of DMMC Shop Floor

- 32 Working with SQL and Lightswitch
- 33 International Commercial terms(INCOTERMS) Used in Emerson Process Management
- 34 Wireless Communication Protocol used in Rosemount Instruments
- 35 Set Up of Wireless Transmitter Assembly Line at Rosemount DMMC
- 12 ETA M & E, Dubai, UAE**
  - 36 Power Distribution In Burj-Al-Salam Hotel Project and Building Management System, An Overview
  - 37 ELV Systems
  - 38 Heating Ventilated and Air Conditioning
- 13 ETA Cars LLC, Dubai, UAE**
  - 39 Servicing of Brakes and Transmission at CARS Workshop
  - 40 Introduction to Transmission and Comparison between Transmissions of Toyota Camry and Nissan Altima
  - 41 Study of K24A3 Engine (Honda Accord)
  - 42 Anti-Lock Braking System in Nissan Altima
- 14 ETA Star Portal FZ LLC, Dubai, UAE**
  - 43 Role of Ecommerce in ETA Star Portal
  - 44 Procure Management-its significance in an organization
  - 45 Spend Management solutions and services provided by ETA Star Portal
  - 46 Management of E-Commerce Business in ETA Star Portal.
- 15 Gulf Wireless & Television Co. LLC, Dubai, UAE**
  - 47 Low Voltage Systems
  - 48 Viper-Personal Vehicle Tracking Device
  - 49 Fleet Management and Vehicle Tracking System
- 16 Infratech Controls BM LLC, Dubai, UAE**
  - 50 Galadhari Car Park
  - 51 Building Management systems and its Onsite application
  - 52 Building Management Systems
  - 53 Arjaan Dubai Motor City
  - 54 Intelligent Building Management systems
  - 55 Galadhari Car Park
- 17 L&T Electrical & Automation FZE, Dubai, UAE**
  - 56 Manufacturing in the Integration Department and Programming of Logic and Development of SCADA Screens
  - 57 Detailed Design Engineering of Telecommunication Systems
  - 58 Preparation of SCADA and PI Screens and Specialized Documents
  - 59 Designing and Testing of SCADA Screens and Programming of Ladder Logic
  - 60 Design and Preparation of SCADA Screens and Purchase Requisitions Using SAP
  - 61 Preparation of Technical Drawings and SCADA Screens
  - 62 Preparation of Technical Documents and Testing of I/O Modules
  - 63 Design of Technical Documents and Factory Acceptance Test of EPABX System
- 18 Lucy Switchgear FZE, Dubai, UAE**
  - 64 A Study on Hosted and in-house mail Servers
  - 65 Risk Assessment and Safe Working Procedures
- 19 Metadata Technology, Dubai**
  - 66 An Understanding and Study of Customer Relationship Management Solutions
  - 67 Customer Relationship Management Solutions – An Overview and Analysis
- 20 Microsoft Gulf, Dubai, UAE**
  - 68 Development of Apps for Windows Platform, Digital Marketing and Technical Support
  - 69 Windows Apps Development, Digital Marketing and Technical Support

- 70 Multi Device Windows Apps Development, Digital Marketing and Technical Support
- 71 App Development for Windows Platform, Digital Marketing and Technical Support
- 21 MSD (Merck, Sharp & Dhome), Dubai, UAE**
- 72 MSD CRM and Introduction of Automations
- 73 Business Operation and Multi-Channel Marketing
- 74 Increasing Efficiency and Effectiveness Using it Automations
- 22 Nucleus Exhibition LLC, Dubai, UAE**
- 75 Operations cycle Involved in Showcasing a Stand in Exhibitions
- 76 Operations Involved in Implementation of Exhibition Stands at Nucleus Exhibitions LLC, Dubai
- 23 Oriental Dynamic Solutions, Dubai, UAE**
- 77 Closed Circuit Television System
- 78 Detailed Study of Fire Alarm System and its Key Components
- 24 Paramount Computers Systems FZ LLC, Dubai, UAE**
- 79 Cloud Safe Backup and Recovery Services
- 80 Security Solutions
- 81 Paramount Helpdesk & Sales, CSR, Technical and HR Tasks
- 82 Backup and Recovery Solution at Cloud Safe
- 83 Information Security : Marketing & CSR
- 84 Information Security, Advanced Persistent Threats & Paramount Helpdesk
- 85 Imprivata Single Sign on Implementation at Fly Dubai, Paramount Helpdesk and Active Directory
- 86 Current Threat Landscape of Cyber World and Security Measures
- 87 An Introduction to Security Information & Event Management
- 25 RAS Infotech Limited, Dubai, UAE**
- 88 Data Erasure and Internet Security
- 89 Web Marshal and Device Lock - Information Security Enterprise Solutions
- 26 Redcube Systems LLC , Dubai, UAE**
- 90 Radio Frequency Identification System
- 91 Intrusion Detection System
- 27 Sanbook Quality Consultancy, Dubai, UAE**
- 92 Occupational Health and Safety
- 93 A Detailed Process for Acquiring ISO/IEC 17025:2005 Which States the General Requirements for the Competence of Testing and Calibration Laboratories
- 94 Food Safety Management System
- 95 ISO 9001:2008 Quality Management System
- 28 Scientechnic, Dubai, UAE**
- 96 Analysis of Fire Fighting and Security Systems
- 97 Road Map to Automation
- 98 Projection of Lights: An Efficient Prospective of Visual Comfort
- 99 General Specification for Electrical Works
- 29 Siemens LLC, Dubai, UAE**
- 100 Building Management Solutions
- 101 An Overview of Siemens Building Automation Control Systems (BACS)
- 102 Key Aspects of a Building Management System
- 103 An Overview of Building Management Systems at Siemens LLC
- 30 Solutions Middle East LLC, Dubai, UAE**
- 104 Virtualization: Past, Present and Future
- 105 Cloud Computing
- 106 Introduction to Mobility and Its Present Trends
- 107 Introduction to Marketing and Its Present Trends

- 108 Tally ERP
- 109 View Wise - Document Management Solution
- 110 HVAC System Design for Solutions Middle East
- 111 MAXIMIZER
- 31 Star Cement Co. LLC, Dubai, UAE**
  - 112 Star Cements Waste Heat Recovery System
  - 113 Kalina Cycle and its Applications
- 32 Teknoware Middle East FZCO, Dubai, UAE**
  - 114 Self Contained Products and Their Implementation in Emergency Lighting
  - 115 Introduction to Emergency Lighting and Central Battery System
  - 116 Advent of Emergency Luminaries
  - 117 Emergency Lighting Solutions at Teknoware
- 33 Telematics Networking & Communications, Dubai, UAE**
  - 118 Structured Cabling System and Automatic Number Plate Recognition System at Muscat International Airport
  - 119 Structured Cabling System and Parking Payment System at Muscat International Airport
  - 120 Structured Cabling System and Parking Guidance System at Muscat International Airport
- 34 Thyssen Krupp Elevator (UAE) LLC, Dubai, UAE**
  - 121 Elevator Traffic Analysis
  - 122 Elevator Safety Systems
  - 123 Sustainable Practices in Elevator Industry
- 35 Topnet Distribution FZCO, Dubai, UAE**
  - 124 NTI - Audio & Video Distribution
  - 125 Leviton - Structured Cabling Systems
  - 126 B&B Electronics - Ethernet Switches
  - 127 Raritan - Data Center Management
- 36 Zio Technologies LLC, Dubai, UAE**
  - 130 Structured Cabling System
  - 131 Security Access Control System
  - 132 Audio Visual System
  - 133 AV System in Healthcare
- 37 Kautilya Project Consultancy FZE, Ras Al Khaimah, UAE**
  - 134 Cloud Computing, Project Management and SQL Server with Business Intelligence
  - 135 Learning and Implementation of Microsoft Project 2010
  - 136 Business Intelligence, MS Project and SharePoint
  - 137 Business Intelligence, MS Project and SharePoint
  - 138 Introduction to Project Management and System Administration in Windows Server, SharePoint and Exchange Server
- 38 BOSCH (Central Motors), Sharjah, UAE**
  - 139 Automotive and Intelligent Measuring Tools
  - 140 Analysis of Automobile Workshops in the UAE
  - 141 Power Tools Business Scenario in the UAE.
  - 142 Analyses of CM&E Products Around the UAE
  - 143 Analysis of Workshop Equipment Brands In the Emirates
- 39 ESRI, Sharjah, UAE**
  - 144 New Raster Functions in ArcGIS
  - 145 ArcGIS Dijits and ArcMap PropertySheets
- 40 GISTEC, Sharjah, UAE**
  - 146 Content Management System and Business Process Management
  - 147 Working with flex and Content Management System

- 148 Building Mobile GIS Applications Using ArcGIS Runtime SDK for Android
  - 149 Building Business Solutions through Sales Force and Fundamentals of Apex and Visual Force
  - 41 Petrofac International, Sharjah, UAE**
  - 150 Design Manual for Glycol Dehydration
  - 151 Hook-up Diagrams and Communication Protocols
  - 152 Study on Control valves and Distributed Control System
- 

#### LIST OF PROJECT ASSIGNMENTS FOR PS II – FIRST SEMESTER 2013 - 2014

- 1 Honeywell Middle East Ltd., Abu Dhabi, UAE**
  - 1 Process Automation Solutions at Honeywell
  - 2 Insight in to Honeywell's Processes
- 2 Star Cement Co. LLC, Abu Dhabi, UAE**
  - 3 Bucket Elevators in Cement Industry
  - 4 Programmable Logic Controller
- 3 Universal Voltas LLC, Abu Dhabi, UAE**
  - 5 Importance of automation system in the modern world
  - 6 Quality, Health, Safety and Environment (QHSE)
- 4 Elfit Arabia, Ajman, UAE**
  - 7 Hydraulics Involved in the Winch Machine and Operation of the Cable Drum Trailer
  - 8 Six Sigma for Manufacturing Companies
  - 9 Plastic Injection Moulding and Duct Spacers at Elfit Arabia
- 5 Adapt Middle East, Dubai, UAE**
  - 10 Customer Experience Management
  - 11 Customer Flow Management
- 6 Azbil Corporation, Dubai, UAE**
  - 12 An Overview of Building Automation Industry
  - 13 The Exertion in Building Automation Commercial Enterprises
- 7 Central Motors and Equipment, Dubai, UAE**
  - 14 A Study of Automotive Aftermarket Industry
  - 15 A Study of Bosch Automotive Parts
- 8 Cluttons LLC, Dubai, UAE**
  - 16 Market Valuation of a Property
  - 17 Oracle and the Workings of Property Management
- 9 ECS ME LLC, Dubai, UAE**
  - 18 Process of ERP Implementation
  - 19 Project Management In An Enterprise
- 10 Emerson Process Management, Dubai, UAE**
  - 20 Quality Control & Inspection Process at Emerson FZE
  - 21 Processes involved in Quality department at Rosemount
  - 22 Forecasting & Inventory Optimization
  - 23 Software For Generating Log Summary & Log Details
  - 24 Technical Aspects of Project Execution
  - 25 Emerson Project Order Execution Process for Transmitters and its Technical Aspects
  - 26 Real Life Applications Of RTDs/Thermocouples In Process Temperature Applications
  - 27 Commercial Aspects OF Project Execution
  - 28 Operations Involved in Temperature Line
- 11 Energy Automation JLT, Dubai, UAE**
  - 29 Automation of Bowsher Mall Electric Motor and Valve Systems

- 30 Automation of Bowsher Mall Ventilation and Electrical Metering Solutions
- 12 ETA Cars LLC, Dubai, UAE**
  - 31 Various Jobs Inside the CARS Workshop
  - 32 Suspensions And Drive Systems Making Driving Smooth
  - 33 Probabilistic Modelling Of Battery Electric Vehicles And Impact On The Current Network
  - 34 Impact of Fuel Saving Technologies for Cars
- 13 ETA M & E, Dubai, UAE**
  - 35 District cooling in Burj Al Salam
  - 36 Fire Fighting System
  - 37 Heating Ventilation and Air Conditioning at Burj Al Salam
- 14 ETA Star Portal, Dubai, UAE**
  - 38 Online Auctioning using Ariba Systems for ETA Star Portal
  - 39 Spend Management and Ariba Systems
  - 40 Ariba System and Online Auctions
  - 41 Hazard Analysis and Critical Control Points
- 15 Infinique Middle East FZCo, Dubai, UAE**
  - 42 Structured Cabling
  - 43 CCTV Products and its Applications
- 16 Infratech Controls BM LLC, Dubai, UAE**
  - 44 Introduction to Programmable Controller Tool
  - 45 Air Handling Unit
  - 46 Network Automation Engines
  - 47 Building Management Systems and Building Automation System
- 17 Innosoft Solutions, Dubai, UAE**
  - 48 Implementation of Share Point
  - 49 Best production of SAP implementation.
  - 50 Implementation of Control, A Cooperate Performance Management Tool
- 18 L & T Electrical & Automation FZE, Dubai, UAE**
  - 51 Development of Power Distribution Management System And Automation Upgrade
  - 52 Integration Center Activities And Telecom System Design
  - 53 Detailed PI System Solutions for Dubai Electricity and Water Authority
  - 54 Telecom Systems-Detailed Design and Engineering
  - 55 Detailed Design Engineering of Various Systems
- 19 Lucy Switchgear FZE, Dubai, UAE**
  - 56 Automated External Temperature Monitoring System
  - 57 Meter Automation, Storage Lighting & Door Alarm System
  - 58 LIMS (Lucy Integrated Management System)
  - 59 An Overview of Waste Management
  - 60 Server Room Consolidation
  - 61 Spare Parts Management
- 20 MEOS Workshop Services, Dubai, UAE**
  - 62 Health, Safety and Environment at MEOS Workshop Services
  - 63 Complete Overview of Oilfield Services
  - 64 Design and Analysis of a Single Stage Radial Flow Centrifugal Pump
  - 65 Piping Systems - Design and Fabrication
- 21 MSD (Merck, Sharp & Dhome), Dubai, UAE**
  - 66 Database Management for Business Intelligence Reports
  - 67 CRM Administration & Report Automation
  - 68 1-50 sales Reports & Automation

- 22 Paramount Computer Systems, Dubai, UAE**  
69 Data Security - Data Loss Prevention Solutions and Information Leakages  
70 Introduction to Paramount Computer Systems and ITIL
- 23 Proserve Middle East, Dubai, UAE**  
71 Proserve M.E. and Chemical Injection Skids  
72 Quality, Health, Safety and Environment
- 24 Redcube Systems LLC , Dubai, UAE**  
73 Access Control System  
74 CCTV Surveillance Systems
- 25 Redington Middle East LLC, Dubai, UAE**  
75 Sales strategy for power quality systems(UPS) by Eaton  
76 Analysing the trend of voice and networking brands at Redington Gulf  
77 Webcast- Online Medium for Markets  
78 Event Managements – Process and Results
- 26 Sanbook Quality Consultancy, Dubai, UAE**  
79 Importance of Standardization in the Cosmetic Industry  
80 Standardization in Oil and Gas Industries  
81 Implementation of Standardization in an Engineering Consultancy  
82 Standardization in Chemical Industries  
83 Quality Management in the Health Industry  
84 Quality Management in the Consumer Industry
- 27 Scientechnic, Dubai, UAE**  
85 Project Management & Basics of Switchgears  
86 Introduction to Scientechnic, Project Management and Key Account Management  
87 Fire Fighting and Fire Alarm Systems  
88 Study of Sheet Metal Division and Fire Alarm Systems  
89 An Overview of the Sheet Metal Factory and Building Technologies Department  
90 Project Design and Analysis of Fire Fighting System  
91 Concepts of Light and Lighting
- 28 Siemens LLC, Dubai, UAE**  
92 Programming Digital Controllers USING Xworks  
93 Overview of Building Management and Control System  
94 Building Automation Control Systems (BACs) at Siemens
- 29 Solutions Middle East LLC, Dubai, UAE**  
95 Selective Study of HR  
96 Computer Parts and Their Assembly  
97 Tally ERP 9  
98 An Overview of Sales in SME
- 30 Spira Power Gasket Manufacturing LLC, Dubai, UAE**  
99 Use of technology in supply chain management  
100 Total Predictive Management
- 31 Star Cement Co. LLC, Dubai, UAE**  
101 Business Excellence Framework at Star Cements  
102 Establishing the context of risk management in a cement industry
- 32 TechRobotix FZCO, Dubai, UAE**  
103 Interactive Solutions and Multitouch Platforms  
104 Multitouch Display Solutions and Frameworks  
105 Multitouch and its Applications

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- 33 Thyssen Krupp Elevator (UAE) LLC, Dubai, UAE**
    - 106 Elevator Drives and Components
    - 107 Energy Consumption and Conservation of Elevators
    - 108 Elevator Traffic Analysis
  - 34 Young and Mubeen Controls LLC, Dubai, UAE**
    - 109 Passive Structured Cabling
    - 110 Active Structured Cabling
    - 111 Building Management System
    - 112 Building Automation System
    - 113 Integrated Security Systems
    - 114 Access Control System and CCTV System
  - 35 Zio Technologies LLC, Dubai, UAE**
    - 115 User Interface Concepts and GUI Design for a High End Meeting Room
    - 116 Digital Signage and its Applications
    - 117 Audio Integration for a Boardroom
  - 36 Koutilya Project Consultancy, Ras Al Khaimah, UAE**
    - 118 Project Management Software and Microsoft SharePoint Server
    - 119 Project Management and Virtualisation
  - 37 Central Motors and Equipment, Sharjah, UAE**
    - 120 Power Tools- Study of Its Working and Application
    - 121 Study of Various Involvement in Bosch Power tools
    - 122 Development of Power Tools Business in the Construction Sector
  - 38 ESRI Global INC, Sharjah, UAE**
    - 123 Raster Functions to support Quality Band of Landsat 8
    - 124 Custom Raster Functions in ArcGIS
  - 39 GISTEC, Sharjah, UAE**
    - 125 Business Process Management Using Skelta
    - 126 Developing Android Applications
    - 127 Web Development : HTML, JAVASCRIPT and PHP
  - 40 Petrofac International, Sharjah, UAE**
    - 128 Miran Gas Field Development and the EL Merk Project - HYSYS and Separator Sizing
    - 129 Pressure Vessel Design and Project Engineering
    - 130 Design Philosophy of ICSS (DCS,IPS & FGS) in KNPC-CFP-2020 Project
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#### LIST OF PROJECT ASSIGNMENTS FOR PS I SUMMER TERM 2012-13

- 1 Automech Engineering Co LLC, Abu Dhabi, UAE**
  - 1 Fabrication and its Various Services
- 2 DBA Infotech, Abu Dhabi, UAE**
  - 2 Information on Helpdesk
  - 3 Application of Helpdesk
  - 4 Process and Operations of Data Centers
  - 5 Applications of Data Center
- 3 Sibca Electronics, Abu Dhabi, UAE**
  - 6 Fire Alarm Systems
  - 7 Building Automation System
- 4 Star cement LLC (Aditya Birla Group) , Abu Dhabi, UAE**
  - 8 Programmable Logic Controller



- 5 Universal Voltas, Abu Dhabi, UAE**  
9 Quality Management System and ISO Standards  
10 HVAC Systems
- 6 NAEL General Contracting Est., Al Ain, UAE**  
11 An Overview of NAEL General Contracting Est.
- 7 Adapt Middle East LLC, Dubai, UAE**  
12 Customer Experience Management
- 8 Al Faizan Electrical Installations LLC, Dubai, UAE**  
13 Nano Robotics  
14 Electricity Distribution of a building  
15 Fire Detection and Alarm System  
16 Applications of Nanotechnology in Energy Sector
- 9 Al Jamaliya Technical Services Co. LLC, Dubai, UAE**  
17 Energy Efficient Air-Conditioning  
18 Working of Air Conditioner  
19 Air-Conditioning  
20 HVAC System
- 10 Al Khaleej Metal Coat LLC, Dubai, UAE**  
21 Organic Coating  
22 Coil Coating, Metal Testing and Hi-Tech Doors  
23 Rolling Shutter and Hi Tech Doors Aluminium Coating Line  
24 Conveyor Belt System
- 11 Al Khaleej Metal Coat LLC, Dubai, UAE**  
25 Sugar Refining Process  
26 Conveyor Belt System
- 12 CEM Business Solutions, Dubai, UAE**  
27 Role of Microsoft Office 365 and Dynamics CRM in Financial Services Industries  
28 Study of the Use of Office 365 and Microsoft Dynamics GP in Business and Application of Dynamics GP for Educational Institutions  
29 Study of Applications of Office 365 for Business and Application of Microsoft Dynamics NAV for Industries  
30 Office 365 and Microsoft Dynamics: Powering Business Worldwide  
31 Office 365 and Implementation of Microsoft Dynamics AX Powering Organizations Worldwide
- 13 Constellation Marine Services, Dubai, UAE**  
32 Cause, Nature and Extent of Damage due to Contact
- 14 Cosmos Star Consultant, Dubai, UAE**  
33 Web Marketing: SEO and SMO
- 15 Dubai Wire FZE, Dubai, UAE**  
34 Process and Operations  
35 Process and Operations of Dubai Wire  
36 Heat Treat
- 16 Eastern Biotech & Life Sciences FZ LLC, Dubai, UAE**  
37 Newborn Screening  
38 DNA Ancestry
- 17 Emerson Process Management FZE, Dubai, UAE**  
39 Emerson Process Management Rosemount Division  
40 Quality management and Logistics Management  
41 Quality Management  
42 DMMC Improvement Projects  
43 Improving Assembly Lines of Pressure and Temperature at Rosemount DMMC

- 18 Emirates Glass LLC, Dubai, UAE**  
44 Coating of Glass  
45 Lamination and Insulated Glass Panel  
46 Heat-Treated Glass
- 19 Emirates Industrial Gases, Dubai, UAE**  
47 Air Separation Unit (ASU) & Dry Ice Plant  
48 Nitrous Oxide Plant & Acetylene Plant  
49 Hydrogen Plant
- 20 E-Pos International LLC, Dubai, UAE**  
50 Marketing of PICO POS
- 21 ETA Cars LLC, Dubai, UAE**  
51 Braking Systems and Engines  
52 Service and Response  
53 A Report on Fuel Department  
54 Knocking in Engines, How to Increase Customers and Safety Rules to be Followed in Workshop  
55 Customer Survey Report  
56 Major Problems in Engines
- 22 ETA Mechanical & Electrical, Dubai, UAE**  
57 Chilled Water System & Lighting Design  
58 Power Plant and Substation  
59 Power Generation  
60 Heating Ventilation and Air-Conditioning Systems and Fire Protection  
61 Burj Al Salam LV Systems & Aweer Gas Turbine Power Plant
- 23 ETA MELCO LLC, Dubai, UAE**  
62 Activities Performed at ETA-MELCO  
63 Working with the Vertical Transportation Industry
- 24 ETA Star Portal LLC, Dubai, UAE**  
64 Services and Solutions Provided by ETA Star Portal  
65 A Brief Overview on Pine Wood Pallets  
66 Manufacturing of Tissue Paper and its Market in GCC  
67 Some Aspects of e-commerce in ARIBA  
68 A-PET Sheets and its major Manufacturers Worldwide
- 25 Fedex Express, Dubai, UAE**  
69 The Customer Service Department ( Management & Tech Services)
- 26 Fischer Fixing Systems , Dubai, UAE**  
70 Fischer Chemicals  
71 Human Resources & Purchase and Logistics Departments  
72 Project at Fischer FZE
- 27 Frequency Middle East, Dubai, UAE**  
73 Evolution and Future of Customer Relationship Management  
74 Camera-based Multi touch Screen Technology  
75 Enterprise Resource Planning-History, Evolution and Future
- 28 Globelink Weststar Shipping LLC, Dubai, UAE**  
76 LCL Consolidation& Airfreight Departments  
77 An Overview of FCL (Full Container Load)
- 29 Granteq LLC, Dubai, UAE**  
78 SMART Board Interactive Whiteboard System  
79 Vidyo Software and Stereoscopic 3D Projector  
80 Display note and Digital Signage

- 30 Gulf Wireless and Television Co. LLC., Dubai, UAE**  
81 Building Management Systems  
82 Managing Car Modifications  
83 Managing Car Modifications  
84 Building Management Systems
- 31 ICBA, Dubai, UAE**  
85 Analytical Techniques for Determining Soil and Plant Physical, Chemical and Biochemical Characteristics
- 32 Infratech Control BM LLC, Dubai, UAE**  
86 Car Park Co Sensors and Chiller Plants  
87 Building Automation System  
88 CCTV Systems  
89 NAE Interface with BTU Meters and Chillers  
90 Al Ghurair City Expansion: Phase 2
- 33 Intertec Systems, Dubai, UAE**  
91 Telemarketing and Aternity  
92 Document Control Management  
93 Scope of Work and Landesk Management
- 34 Kingsmen ME LLC, Dubai, UAE**  
94 Project Management and Execution
- 35 L & T Electrical and Automation FZE, Dubai, UAE**  
95 Documentation of Technical Document, Study of PLC Components and Purchase Requisition  
96 DEWA Process Information Management System and ADMA OPCO HMI Up gradation Project  
97 Fuel Farm & Fuel Hydrant System for the Development of Salalah Airport  
98 CCTV System and Milestones of a Project  
99 Preparation of Technical Documents and Design of Containment Layouts  
100 Telecommunication Project Engineering Design and Documentation  
101 Basic Study of Programming Logic Controllers and Designing of SCADA Screen
- 36 Metadata Technologies FZ LLC, Dubai, UAE**  
102 Social Media Marketing in Metadata  
103 Importance of Social Media Optimization in Metadata
- 37 Miltech Rugged Computing Solutions LLC, Dubai, UAE**  
104 Rugged Computing
- 38 Miltech Rugged Computing Solutions LLC, Dubai, UAE**  
105 Software Development Life Cycle  
106 IT Infrastructure Services & Operations (Datacenter Architecture)
- 39 Prime Medical Center, Dubai, UAE**  
107 Serological Diagnosis of Mycoplasma Pneumoniae  
108 Quality Control for COBAS 6000 Instrument  
109 Overview of the Assignments Conducted at Practice School
- 40 Q- People Solutions, Dubai, UAE**  
110 Day to Day Work in Q-People
- 41 Reliance Facilities Management LLC**  
111 Case Study on the Clients of RFM and ROAM  
112 Reliance Owner's Association Management Market Study & Liberty House Case study
- 42 Roto Packing Materials Industry Co. LLC, Dubai, UAE**  
113 Rotogravure, Offset and Quality Control
- 43 Safedata Middle East LLC, Dubai, UAE**  
114 Company Departments  
115 Departments of Safe data

- 116 Technical and Presales Department
- 44 Sanbook Quality Consultancy, Dubai, UAE**
  - 117 Quality Management Systems
  - 118 Measurement of Uncertainty
  - 119 Environmental Management System (EMS) ISO 14001:2004
  - 120 Hazard Analysis Critical Control Point
  - 121 Occupational Health and Safety Advisory Services (OHSAS) 18001
  - 122 Good Manufacturing Practice
- 45 Scan Technology LLC, Dubai, UAE**
  - 123 Importance of Calculations in Tableau and its Applications
  - 124 Tableau
  - 125 Visual Analytics - TABLEAU
  - 126 Dashboard Development
- 46 Scientechnic, Dubai, UAE**
  - 127 Automation Projects and Products
  - 128 Fire Detection and Prevention
- 47 Solutions Middle East LLC, Dubai, UAE**
  - 129 SME Support Team Structure
  - 130 SME's Expansion in the Kingdom of Saudi Arabia
  - 131 Introduction to Sales in SME
- 48 Spira Power Gasket Manufacturing LLC, Dubai, UAE**
  - 132 Quality Management System
  - 133 Social, Processing and Improvement on Gaskets and Seals
  - 134 Competition in Gasket Manufacturing Industry
- 49 Star cement LLC (Aditya Birla Group), Dubai, UAE**
  - 135 SAP, Plant Survey and PC Auditing
  - 136 Star Cement Production
- 50 Steinweg-Sharaf FZCO, Dubai, UAE**
  - 137 MIS Report Analysis and Inventory Turnover Data
- 51 Tech Robotix FZCO, Dubai, UAE**
  - 138 Gesture Recognition
  - 139 Multi-Touch Development Environment
  - 140 Multi touch Prototype
- 52 Technofab Steel Manufacturing LLC, Dubai, UAE**
  - 141 LPG Systems: Design, Execution and Maintenance
  - 142 Modern Steel Manufacturing Process and Techniques
  - 143 Turnkey Automation Solutions
  - 145 CNC The Future of Production Technology
- 53 Teknoware Middle East FZCO, DAFZA, Dubai, UAE**
  - 146 Emergency Lights and Central Battery Systems in TEKNOWARE, AE
  - 147 The Inventions of Emergency Lights in Teknoware
- 54 Telematics Networking & Communications LLC, Dubai, UAE**
  - 148 Move N'Pick Networking and Structured Cabling
  - 149 A Study done on the use of ICT in the field of Education
  - 150 Automatic Number Plate Recognition Systems
- 55 Topnet Distribution FZCO , Dubai, UAE**
  - 151 Structured Cabling System
  - 152 Fiber Optic Cabling

- 56 Transgulf Electro Mechanical LLC, Dubai, UAE**  
153 Electrical Equipments and Estimation  
154 Heating, Ventilation and Air Conditioning Systems  
155 Quality Management System  
156 Testing and Commissioning of HVAC Systems  
157 Testing and Commissioning - Electrical  
158 Health, Safety and Environmental Management System
- 57 Twinvey Electric Consultancy, Dubai, UAE**  
159 Lightning Protection System & Step and Touch Voltage  
160 Study on Power System and Ground Potential Rise
- 58 United Diesel LLC, Dubai, UAE**  
161 The Air Braking System and its Complexities  
162 Mechanisms & Electronics of Renault Truck Engines  
163 Mechanism of Gearbox in Tata, Renault Trucks and Buses
- 59 V3 media solutions FZ LLC, Dubai, UAE**  
164 Video Production  
165 Linking and Documentation
- 60 Verger et Delporte Ltd., Dubai, UAE**  
166 Working & Testing of Motor Control Centers  
167 Company Organization, Quality Control and Inspection  
168 Circuit Breakers and its Applications  
169 Main Distribution Boards with Description and Working of ACBs  
170 Programmable Logic Controller
- 61 Young and Mubeen Controls FZE, Dubai, UAE**  
171 A Report on Access Control System  
172 Building Management System  
173 A Report on Structured Cabling Systems  
174 Design Aspects of Fire Alarm Systems in ONYX  
175 Closed Circuit Television (CCTV) Systems
- 62 Zio Technologies, Dubai, UAE**  
176 Biometric Recognition Systems  
177 Access Control Credentials
- 63 Ace Industries FZC, Sharjah, UAE**  
178 ACE Industries  
179 PVC Polymers and HVAC  
180 HVAC Machines and its Products  
181 ACE HVAC Division
- 64 Al Shabiya Group of Companies, Sharjah, UAE**  
182 The Fabrication of Pipes and Pressure Vessels  
183 Electro chlorination  
184 Software Projects Handled during Practice School  
185 Quality Control Department  
186 Computer Vision
- 65 Classic Printing Press, Sharjah, UAE**  
187 An Overview of Post-Press Printing  
188 An Overview of Press Printing  
189 An Introduction to Pre Press Printing
- 66 Cluttons, Sharjah, UAE**  
190 Real Estate Management

- 191 Implementation of Property Management Operations Using AMLAKI  
 192 Property Management  
 193 Real Estate Management at Cluttons LLP Services Provided with Particular Attention to Property Management
- 67 Conscillium Middle East FZ LLC, Sharjah, UAE**  
 194 Construction of Oil Terminal at Hamriyah Free Zone HSE Philosophy  
 195 Working of an EPCC Case Study on Project: VOPAK HORIZON, Fujairah
- 68 Corrosion Technology Services, Sharjah, UAE**  
 196 A Brief Overview to CTS  
 197 Cathodic Protection
- 69 GISTech, Sharjah, UAE**  
 198 Aspects of Joomla Website
- 70 Glassco International FZE, Sharjah, UAE**  
 199 Structural Working of the Company  
 200 Different Machines involved in Glass Designing  
 201 Types of Glasses and their Specifications
- 71 L & T Construction, Sharjah, UAE**  
 202 Environment, Health and Safety with Emphasis on Induction Training  
 203 Quality Management System  
 204 Environment Health and Safety
- 72 Lamprell Energy Ltd., Sharjah, UAE**  
 205 P & ID  
 206 Production Department – Case Studies  
 207 Jacket and ICOEFR Project
- 73 Petrofac International, Sharjah, UAE**  
 208 Electrical Load List and Basic Instrumentation Measuring Devices  
 209 Horizontal Pressure Vessel Design  
 210 Heating Ventilation and Air Conditioning  
 211 HSE Department  
 212 DCS Intelligent Pigging, Flange Management, Petro-Pcs and my Project of Punch List Management System (Working Application)
- 74 Safeenat AI Boom Engineering LLC, Sharjah, UAE**  
 213 Web Designing
- 75 Sharjah Genaral Contracting, Sharjah, UAE**  
 214 Working of Hot Mix Asphalt, Concrete Plants and Building Management System
- 76 WS Atkins & Partners Overseas, SAIF Zone, Sharjah, UAE**  
 215 Project Management Study at Atkins (Oil and Gas Sector)
- 77 ESS ESS Bathroom Prod. Ltd., Chandigarh, India**  
 216 Manufacturing Processes of bathroom Fittings  
 217 Manufacturing Processes of Taps  
 218 Designing Centre at ESS ESS Bathroom Products Pvt. Ltd.
- 78 United Gears Ltd., Chandigarh, India**  
 219 Manufacturing of Gears and Connecting Rods  
 220 Manufacturing Process of Engine Gear  
 221 Manufacturing Techniques at United Gears
- 79 Agrigold Projects Ltd., Hyderabad, India**  
 222 The Study of Construction Site at Guntur, Andhra Pradesh
- 80 eLogic Solutions(India) Pvt. Ltd. Hyderabad, India**  
 223 Data Validation and Recruitment Tracking System  
 224 Research of AEC and it Industries

- 81 SRR Projects Pvt. Ltd., Hyderabad, India**  
 225 Electrical Transmission Lines Specifications  
 226 An Overview of Industrial Machinery at SRR Projects Private Limited  
 227 An Overview of Mechanical Plants and Machinery at SRR Projects Private Limited  
 228 Human Resource Functions
- 82 Darshan Chemicals, Mumbai, India**  
 229 Study of Chemical Process in Distillation (Case Study of Darshan Chemicals)  
 230 A Study of Quality Control at Chemical Industries (Darshan Chemicals: A Case Study)  
 231 A Study of Distillation Plant (Darshan Chemicals)  
 232 Distillation Process and Types: A Study  
 233 Study of Utilities and Condenser at a Distillation Plant  
 234 A Study of Automation in Distillation (Darshan Chemicals: A Study)
- 83 Jindal South West (JSW) Steel, Dolvi Limited, Mumbai, India**  
 235 With Reference to the Finishing Stands – JSW, Dolvi Works  
 236 Descaling Unit & Its Role in Hot Rolling Process  
 237 Tunnel Furnace of Hot Strip Mill  
 238 Coiling Process in Hot Rolling  
 239 With Reference to Automation of the Hot Rolling Mill Stands at Dolvi
- 84 Tata Consultancy Services, Mumbai, India**  
 240 Advisors in the IT Market  
 241 Information Technology Outsourcing  
 242 Business Process Outsourcing  
 243 Analysts in Today's Outsourcing & IT Market
- 85 UltraTech Cement Limited, Mumbai, India**  
 244 Energy Consumption Mapping & Analysis of ABSTC Central Electrical Utility Systems with respect to Power Flow Mapping & Analysis, Power Quality Analysis & Electrical Tariff Study  
 245 Energy Consumption Mapping & Analysis of Central Electrical Utility Systems: Load Analysis, Power Quality Analysis, Illumination Study  
 246 Bucket Elevators in a Cement Plant  
 247 Crushing System in a Cement Plant  
 248 Manual Testing and Web Testing (Case Study)
- 86 Fortis Escorts Heart Institute, New Delhi, India**  
 249 Building Maintenance Needs Vs Quality and Engineering Purchases  
 250 Observation and Analysis at Heart Stations I, II and Nuclear Medicine and Fortis Operating System  
 251 Radiological Report Monitoring-Quicker the Better and Quality Control of CIDEX Usage  
 252 Medico-Legal Cases and Day Care Centre  
 253 Radio-Frequency Identification and Fortis Operating System  
 254 Tracking of Biomedical Complaints and Quality Control of CIDEX Usage
- 87 Microtek International Pvt. Ltd., New Delhi, India**  
 255 Know Your Customer and Serve Rhythmically KYC-SR
- 88 Okaya Power Ltd., New Delhi, India**  
 256 Understanding the Market by Analyzing Real Time Data for Direct to Home (DTH) Service
- 89 Blueprinter, Copenhagen, Denmark**  
 257 3D Printing Using Selective Heat Sintering Technology

**LIST OF PROJECT ASSIGNMENTS FOR PS II - FIRST SEMESTER 2012-13****1. Automech Engineering Co. LLC, Abu Dhabi, UAE**

1. Study On Industrial Machining, Data Management & Design Development
2. Cantilever Rack And Its Design

**2. Star Cement Co. LLC, Abu Dhabi, UAE**

3. Power Generation From Waste Heat
4. Quality Control Of Cement In A Grinding Plant
5. Study Of Air Compressor Systems And Optimizing Overall Compressor Efficiency

**3. Universal Voltas LLC, Abu Dhabi, UAE**

6. Multi-Level Modelling In Biometric Systems.
7. Networking Through Cloud Computing

**4. Elfit Arabia, Ajman, UAE**

8. Plastic Injection Mould For Cable Laying
9. Copper And Fiber Telecom
10. Designing A Multi-Purpose Cable Drum Trailer
11. Cable Pulling Winch Machine And Accessories

**5. Al Tayer Motors LLC, Dubai, UAE**

12. Engines And Air Conditioners
13. Engines, Integrated Diagnostic System And Air Conditioning Systems

**6. Azbil Corporation, Dubai, UAE**

14. Bacnet Communication Protocol And Low Current Systems Integration
15. Extra-Low Voltage Systems Integration And Bacnet Protocol

**7. Central Motors & Equipment, Dubai, UAE**

16. Various Bosch Test Equipments & Its Application In The Automotive Industry
17. An Analysis On Bosch Batteries For The Automotive Industry

**8. Citibank, UAE**

18. Analysis Of Scope Of Emerging High Frequency Trading In U.A.E
19. Study Of Commodity Trading With Focus On Gold In U.A.E
20. Analysis Of Short Term Credit Risk In Business Lending By Commercial Banks In U.A.E

**9. DNV (Det Norske Veritas), Dubai, UAE**

21. Visual Basic And It's Applications

**10. Doosan Heavy Industries & Construction Co. Ltd., Dubai, UAE**

22. Nox Water Skid Studies In Gas Turbine
23. Studying Of Working Of Different Skids In The Gas Turbine
24. An Analysis Of Bitzer Screw Type Compressors Used In The Hvac Process.
25. Study Of Performance Of Steam Turbine In Doosan
26. The Applications Of Boilers And Hrsg Design
27. Study Of Condenser Coils In The Hvac System
28. Environmental Impact Assessment For Jebel Ali Power And Desalination Station M
29. Working Of Scada And Plc
30. The Design And Working Of Heat Recovery Steam Generator
31. Application Of Lube Oil Skid In Power Plant
32. Working And Application Of Black Start Power Supplies



33. Principle And Working Of The Gas Turbine Engine.
34. Specialty Valves Operating In A Power Plant
35. Working And Applications Of Transformers In A Power Plant
36. Power Plant Protection And Mechanism Of Circuit Breakers
37. Study Of Electrical Relays And Circuit Breakers At Jebel Ali 'M' Station
38. Study And Analysis Of Steam Turbines At Jebel Ali 'M' Station
39. Auxiliaries Of Gas Turbine At Jebel Ali 'M' Station
40. The Overview Of The Gas Turbine, Doosan's Jebel Ali 'M' Station Power Plant
41. A Summary On The Working Of Modern Steam And Gas Turbines, Doosan's Jebel Ali 'M' Station Power Plant
42. The Gas Turbine System At Jebel Ali 'M' Station

**11. Dulsco LLC, Dubai, UAE**

43. Biodiesel - A Fuel For The Future

**12. Emerson Process Management, Dubai, UAE**

44. Improvement In Quality Control Inspection Process And Metrology For Calibration
45. Application Development
46. Debugging, Software Development And Version Control System
47. Projects Executed By Project Management Office Of Rosemount, Dubai For Abu Dhabi And Saudi Arabia Regions
48. Execution Process At Project Management Office (Pmo)
49. Planning And Execution In Emerson's Project Management Office For Central Region In Middle East And Africa
50. Kaizen Project For Operational Efficiency And Enhanced Productivity Of Transmitter And Sensor Assembly Lines

**13. ETA Cars LLC, Dubai, UAE**

51. Hybrid Vehicles
52. Engine Misfiring
53. Smarter Service Centers
54. Risk Assessment And H.S.E

**14. ETA M & E, Dubai, UAE**

55. Motor Starting Analysis And Calculation Of Voltage Drop
56. Water Supply And Distribution In Burj Al Salam Site

**15. ETA Star Portal, Dubai, UAE**

57. Spend Management Through Ariba
58. A Detailed Assessment Of Ariba Solution

**16. Fedex Express, Dubai, UAE**

59. Analysis On The Softwares Utilized In Fedex
60. Analysis On The Professional Procedures At Fedex
61. Vendor Management And It Development Projects Of Fedex
62. Automation Solutions Supported By Customer Technology At Fedex

**17. Frequency - Integrated Marketing Communications, Dubai, UAE**

63. An Introduction To Marketing At Frequency Communications And Levtech Consulting
64. Telemarketing: A Boon In The Marketing World

**18. Granteq LLC, Dubai, UAE**

- 65. The Reach Of Smart Classroom In The Modern World
- 66. The Modern Era Of Video Conferencing

**19. Gulf Wireless & Television Co. LLC, Dubai, UAE**

- 67. Closed-Circuit Television Systems
- 68. Communication Systems At Gulf Wireless Television
- 69. Vehicle Tracking Systems

**20. HCL Technologies Limited, Dubai, UAE**

- 70. Application Development For Android
- 71. Native And Hybrid Application Development For Android

**21. Infratech Controls BM LLC, Dubai, UAE**

- 72. Building Management Systems In Light Commercial Tower.
- 73. Building Control Automation.
- 74. Building Automation Systems
- 75. Building Management System: Case Syudy At Aviation Club Site.
- 76. Building Management Systems And Its Onsite Application.

**22. L&T Electrical & Automation FZe, Dubai, UAE**

- 77. Extensive Analysis Of The Principal Competencies Of L&T Electrical And Automation Fze.
- 78. Automation Systems Of Gulf Petrochem, Daleel And Tecton Projects.
- 79. Scada Implementation For Oil And Gas Project.
- 80. Improvisation Of Automation Systems & Associated Document Preparation.
- 81. Plc System For District Cooling Plant At Qatar
- 82. Design And Engineering Of Automation Systems
- 83. Integration Systems Activities & Productivity Analysis At L And T
- 84. Industrial Automation Systems Of Some Projects At L And T

**23. Lucy Switchgear FZe, Dubai, UAE**

- 85. Internal Handling Damage Reduction
- 86. Pallet Implementation And Container Space Optimization
- 87. Industrial Barcode Tracking
- 88. The Implementation Of Jafza's Lifting Protocol On Lifting Equipment.

**24. MSD (Merck, Sharp & Dhome), Dubai, UAE**

- 89. Improving Efficiency Through Automation
- 90. Continuous Medical Education Website
- 91. Tools For Modern Day Business Environment

**25. Oriental Dynamic Solutions, Dubai, UAE**

- 92. Building Security And Access Control System
- 93. The Functions And Components Of Fire Alarm System
- 94. Designing Of Cctv System In High Rise Building
- 95. Advanced Control Battery System

**26. Paramount Computers Systems FZ LLC, Dubai, UAE**

- 96. Backup & Recovery Services In Cloud
- 97. Architecture Of A Cloud-Based Data Centre
- 98. Advancements In Burr Solutions

**27. Ras Infotech Limited, Dubai, UAE**

- 99. Network And Information Security
- 100. Application And Information Security

**28. Redcube Systems LLC , Dubai, UAE**

- 101. Closed Circuit Television Systems (Cctv)
- 102. Access Control Systems

**29. Sanbook Quality Consultancy, Dubai, UAE**

- 103. Haccp Certificate, Iso 22000:2005 And Iso 9001:2008 Standardization
- 104. Iso 17025 Accreditation And Iso 14001 & Ohsas 18001 Certification

**30. Scientechnic, Dubai, UAE**

- 105. Switchgears-Introduction, Manufacturing And Their Practical Applications
- 106. Switchgear Elements And Devices: Their Characteristics, Functions And Testing
- 107. Short Circuit Testing On Low Voltage Switchgears

**31. Siemens LLC, Dubai, UAE**

- 108. Study Of Data Point Schedules For Execution Of Bms
- 109. Execution Of Building Management Systems
- 110. Development Of Building Management Systems

**32. Solutions Middle East LLC, Dubai, UAE**

- 111. Faxing Solutions
- 112. Wan Optimization & Its Uses To The Present World.
- 113. Xen App & Xen Desktop
- 114. An Overview On Virtualization And Its Benefits
- 115. Realization Of Desktop Virtualization And Its Benefits
- 116. Mobile Messaging & Its Applications In The Enterprise World
- 117. A Brief Study On F5 Products And Solutions Provided

**33. Star Cement Co. LLC, Dubai, UAE**

- 118. Study On Clinker Manufacturing Process In A Cement Plant
- 119. Internal Assessment And Analysis For The Business Enhancement

**34. Tecknoware Middle East Fzco, Dubai, UAE**

- 120. Design Of Emergency Lighting Systems
- 121. Design Of Escape And Aalto
- 122. Design Of Led Light Systems
- 123. Design Of Self Contained Lights

**35. Thyssen Krupp Elevator (UAE) LLC, Dubai, UAE**

- 124. Safety Of Elevators, Escalators And Moving Walks
- 125. Control Of Electric Drives In Elevators
- 126. Electrical Drive Systems Employed In Elevators

**36. Topnet Distribution FZCo, Dubai, UAE**

- 127. The Applications Of Fiber Optics In Industrial Field
- 128. Environment Monitoring For Data Centers And Audio/Video Solutions

**37. Transgulf Electro-Mechanical LLC, Dubai, UAE**

- 129. Quality Management System
- 130. Hvac-Heating, Ventilating And Air Conditioning At Nilona Towers-Jadaf, Dubai
- 131. Hvac -Heating, Ventilating And Air Conditioning

**38. Zio Technologies LLC, Dubai, UAE**

- 132. Digital Signage Applications In Emaar Boulevard
- 133. Application Of Security Systems In Yas Mall

**39. Ashkhar Metals FZe, Sharjah, UAE**

- 134. Furnace Oil Preheating
- 135. Lounder Preheating And Dross Press Efficiency
- 136. Maintenance Report Of Ashkhar Metals And Recuperator Efficiency

**40. Central Motors & Equipment, Sharjah, UAE**

- 137. Bosch Automotive Lighting And Osram Lighting
- 138. Innovative Marketing Techniques For The Commercialization Of New Power Tools Technologies

**41. ESRI, Sharjah, UAE**

- 139. Elevation Profile Widgets Using Java Script Api

**42. Petrofac International, Sharjah, UAE**

- 140. Vessel Sizing And Line Hydraulics
- 141. Static Equipment In Oil & Gas
- 142. Communication Networks
- 143. Level Sketches
- 144. High Integrity Pressure Protection System

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**LIST OF PROJECT ASSIGNMENTS FOR PS I 2012****1. Automech Engineering Co. LLC, Abu Dhabi, UAE**

- 1. Journey Through Automech Engineering
- 2. Overview Of Automech Engineering Co., Abu Dhabi
- 3. Profile Of Automech Engineering Co., Abu Dhabi
- 4. Service And Facility At Automech Engineering

**2. Constellation Marine Services, Abu Dhabi, UAE**

- 5. Survey Report On Motor Vessel (Abc)

**3. Jones Lang Lasalle, Abu Dhabi, UAE**

- 6. Upcoming Developments In Abu Dhabi

**4. Solutions Middle East LLC, Abu Dhabi, UAE**

- 7. Citrix – Virtualization & Networking
- 8. Faxing In The Corporate World

**5. Star Cement Co. LLC, Abu Dhabi, UAE**

- 9. Cement Grinding Optimization And Introduction To Plc

**6. Universal Voltas LLC, Abu Dhabi, UAE**

- 10. An Overview Of Electromechanical Operations At Universal Voltas
- 11. An Overview Of Operations At Universal Voltas (Auh)

**7. Elfit Arabia, Ajman, UAE**

- 12. Development Of An Inter - Department Planning Tool & Production Planning System
- 13. Optimization In Costs Of Raw Material
- 14. Optimization Of Hydraulic Jack And Analysis Of Products In 2d
- 15. Plastic Injection Molder

**8. Al Faizan Electrical Installation LLC, Dubai, UAE**

- 16. Electrical Work On Construction Site
- 17. Plumbing Systems

**9. Al Khaleej Sugar Co. LLC, Dubai, UAE**

- 18. Conveyor Systems
- 19. Enterprises Resource Planning And Its Implementation – Sap
- 20. Power Generation And Mechanical Vapour Recompressor
- 21. Raw Sugar Refining, Power Generation And Conveyor Belt Systems

**10. Al Naboodah Automobiles LLC, Dubai, UAE**

- 22. Engine Design
- 23. Operational Systems In Automobiles
- 24. Unconventional Automobile Systems

**11. Al Tayer Motors LLC, Dubai, UAE**

- 25. Automobile Parts
- 26. Systems In Automobiles

**12. Better Life, Dubai, UAE**

- 27. Advertising Needs
- 28. Best Industry Practices
- 29. Better Life: Market Analysis And Consumer Awareness
- 30. Customer Satisfaction Index
- 31. E-Tailing

**13. Bahri & Mazroei Trading Co., Dubai, UAE**

- 32. Building Management System
- 33. Credit Control
- 34. Led Highbay Fixture By Dialight Durosite
- 35. Lighting Control Management
- 36. Street Lighting Fixtures

**14. Constellation Marine Services, Dubai, UAE**

- 37. Damage Survey On Motor Vessel (Abc)

**15. Cosmos Star Consultants, Dubai, UAE**

- 38. Basic Criteria Of Group Buying & Online Marketing
- 39. Deal Management And Launch At Group Buying Websites

**16. Cluttons LLC, Dubai, UAE**

- 40. Implementation Of The Property Management Software - Amlaki

**17. Delta Electric FZe, Sharjah, UAE**

- 41. Busbar And Busduct
- 42. Circuit Breakers
- 43. Motor Control Centers
- 44. Stages Involved In Production Of Busducts

**18. Digitech ERP, Dubai., UAE**

- 45. An Analysis On The Hr And Salary Reports
- 46. Department Of Hr & Roles Of Employee Master
- 47. Ess, Employee Request, Organizational Chart, Employee Mess
- 48. Implementation Of Hr & Payroll Masters
- 49. Implementation Of Leave And Transfers Module

- 50. Operating Employee Ticket Revision, Salary Revision And Recruitment Module
- 51. Payroll Process
- 19. Eastern Biotech & Life Sciences Fz LLC, Dubai, UAE**
  - 52. Statistical Analysis Of Dna Haplogroups In The Middle East
- 20. Emerson Process Mgt. , Dubai, UAE**
  - 53. Python Program For Handling Ps/Pcl Prints, Report Generation For Rosemount Information Tool (Rita)
  - 54. Temperature Transmitter Final Assembly Line At Dmmc
- 21. Emirates Glass LLC, Dubai, UAE**
  - 55. Cost Analysis Of Coating And Tempering
  - 56. Temperable Glass Products And Its Analysis
  - 57. Vacuum Technology In Glass Coating
- 22. Emirates Industrial Gases Company LLC, Dubai, UAE**
  - 58. Acetylene Gas Production
  - 59. Air Separation Unit
  - 60. Dry Ice Plant
  - 61. Gas Production In Eigg – Nitrous Oxide
- 23. E-Pos International LLC, Dubai, UAE**
  - 62. E - Pos - Banking
  - 63. Tech Trends In Retail
- 24. ETA Cars LLC, Dubai, UAE**
  - 64. A Time And Motion Study
  - 65. Performance Appraisal System Management
  - 66. Petroleum: Characteristics And Uses
  - 67. Study On Marketing
  - 68. Working Principles And Characteristics Of A Diesel Engine
- 25. ETA M & E, Dubai, UAE**
  - 69. Building Management System
  - 70. Busbar Systems
  - 71. Heat Ventilation Air Conditioning (HVAC)
  - 72. HVAC
  - 73. Refrigeration Cycle And Practical Application As A Cooling Plant
  - 74. Water Cooling System In Burj Al Salam
- 26. ETA Melco Elevator, Dubai, UAE**
  - 75. Departmental Functions Of Eta Melco
  - 76. Study Of Elevators
- 27. ETA Star Portal Fz LLC, Dubai, UAE**
  - 77. Business Development
- 28. Fedex Express, Dubai, UAE**
  - 78. Automation Service At Customer Service – Fedex
  - 79. Automaton Tools At Fedex Express
  - 80. Hub Operations At Fedex Express
- 29. Galadhari Engineering Works Co. LLC., Dubai, UAE**
  - 81. Crane Maintenance
  - 82. Machining Processes

83. Tetrahedron Space Frame Truss Construction (The Sharjah Expo Centre Project)

**30. Granteq LLC, Dubai, UAE**

84. Cloud Computing – An Emerging Paradigm  
85. Video Conferencing Solutions

**31. Gulf & Safa Diaries LLC, Dubai, UAE**

86. An Overview Of Potential Pathogens Present In Dairy Products  
87. Cleaning In Process (Cip) System  
88. Food Ethics – An Overview Of The Dairy Industry  
89. Milk Processing And Quality Management In Dairies

**32. Gulf Wireless & Television Co. LLC, Dubai, UAE**

90. Closed Circuit Television (Cctv)  
91. Global Positioning Systems And Future Uses  
92. Smart Lighting Systems: Modular Intelligent Control System

**33. Hcl Technologies Limited, Dubai, UAE**

93. Data Mining And Bank Analysis  
94. Data Mining On It Profile Of Major Gcc Companies

**34. Infratech Controls Bm LLC, Dubai, UAE**

95. Building Automation And Controls  
96. Building Automation Systems  
97. Building Management System And Air Handling Units  
98. CCTV Systems

**35. International Diesel Services, Dubai, UAE**

99. Fuel Injection And Common Rail System

**36. International Center For Biosaline Agriculture, Dubai, UAE**

100. Evaluation Of Native Rhizobial Strains For Tolerance To Abiotic Stresses

**37. Jones Lang Lasalle, Dubai, UAE**

101. Company Overview, Supply Sheets & Site Feasibility Study  
102. Company Overview, Surveys, Investor Sentiment Survey (Iss) & Survey Softwares  
103. Market Trends: Studying Them And A Comparison Study  
104. Snagging – Defects Analysis

**38. Kingsmen Middle East LLC, Dubai, UAE**

105. Architecture And Interior Design  
106. Design Proposal For Sound Proofing Of Ristorante Cavallino At Ferrari World  
107. Research Strategies Adopted For Exhibition Shows  
108. Telemarketing In Kingsmen Company

**39. L&T Electrical & Automation Fze, Dubai, UAE**

109. A Few On Going Projects And My Contribution  
110. Cctv And Automation Systems  
111. Cctv Security Systems And Allied Projects  
112. Development Of Wo-16 & Sb-14 Well Platforms And Epic Of Wellhead Platform & Living Quarters For Zhdanov B  
113. Instrumentation Specifications For On-Going Projects  
114. Lteafze – Integration Systems Production And Management

- 115. Lteafze – Scada Systems
- 116. Procurement Process
- 117. Procurement Process & Procedures
- 40. Logwin Air & Ocean Me LLC (Globelink West), Dubai, UAE**
  - 118. Import Sales And Document Preparations Of Full Container Load Of Cargo
  - 119. Less Than Container Load And Air Freight
- 41. Miltec Rugged Computing Solutions LLC, Dubai, UAE**
  - 120. Industrial Scope Of Rugged Computing In UAE
  - 121. Market Analysis And Scope Of Rugged Computers In The UAE
  - 122. Rugged Computing And Market Analysis
  - 123. Rugged Computing Technology
- 42. MSD (Merck, Sharp & Dhome), Dubai, UAE**
  - 124. Analysis Of Financial Statements Of Merck Sharp & Dohme
  - 125. Customer Relationship Management
  - 126. Database Management System
  - 127. Hr Employee Databases
  - 128. Marketing Events – Documentation And Record Keeping
  - 129. Trade Channel In Msd
  - 130. Working Of A Crm Database
- 43. Paramount Computers Systems FZ LLC, Dubai, UAE**
  - 131. Backup, Recovery & Network Security
- 44. Prime Medical Center, Dubai, UAE**
  - 132. A Study Of Morphology, Cultural & Biochemical Characteristics Of Different Isolates
  - 133. Antibiotic Susceptibility Of Staphylococcus Aureus
  - 134. Blood Cell Morphology Analysis And Mdros
- 45. Procal Measuring & Control Equipment, Dubai, UAE**
  - 135. Basics Of Calibration
- 46. Ras Infotech Limited, Dubai, UAE**
  - 136. Basic Internet Security Terminologies
  - 137. Data Leak Prevention And Device Lock
- 47. Roto Packing Materials Industry Co LLC, Dubai, UAE**
  - 138. Insider On Packaging Industry Life Of A Roto Gravure Cylinder
  - 139. Insider On Packaging Industry Preventive Maintenance
- 48. Safedata Middle East LLC, Dubai, UAE**
  - 140. Brand Building: Strategies Used By Multinational Corporations
  - 141. Brand Management
  - 142. Cloud Computing
  - 143. Concepts Of Cloud Computing
- 49. Safeenat AI Boom Engineering LLC, Dubai, UAE**
  - 144. Generating Business Awareness Using Facebook For Comshop18
  - 145. Using Facebook For Business To Increase Traffic And Sales
- 50. Sanbook Quality Consultancy, Dubai, UAE**
  - 146. Integrated Management System
  - 147. Introduction To Iso 22000 Standards



148. Methods In Business Consulting
149. Orientation Of Sanbook Quality Consultancy And International Standards For Organizations And Food Safety Management Systems (Fsms)
- 51. Sasol Gulf, Dubai, UAE**
150. A Detailed Analysis Of The Electrostatic Precipitator
151. Design, Installation And Fabrication Of Reciprocating Pumps And V Pumps
152. Sulfonation Processes
153. Sulfonation Processing Technology For Anionic Surfactant Manufacture
154. Thermodynamics Of The Sulphonation Process
- 52. Scientechnic, Dubai, UAE**
155. Business And Organization Structure Of Scientechnic
- 53. Screencheck Middle East Fz LLC, Dubai, UAE**
156. Marketing And Its Various Aspects
157. Software Application Development On Windows Presentation Foundation
158. Software Application Development Using Windows Presentation Form
- 54. Solutions Middle East LLC, Dubai, UAE**
159. Use Of Social Media In Marketing
160. Virtualization Through Citrix
- 55. Srf Overseas Limited, Dubai, UAE**
161. It Operation, Functionalities And Activities At Srf
162. Tyre Cords And Operations At Srf
- 56 Star Cement Co. LLC, Dubai, UAE**
163. Implementation Of The Aditya Birla Information Security Management System In Compliance With The Iso 27001 Standards
- 57. Steinweg-Sharaf FZe, Dubai, UAE**
164. Processes At Steinweg-Sharaf Fzco
- 58. Technofab Steel Manufacturing LLC, Dubai, UAE**
165. Study Of Multipurpose Press Tool
166. Study Of Press Tool And Injection Mould
167. Study Of Vacuum Forming
- 59. Teknoware Middle East FZco, Dubai, UAE**
168. Nfpa Life Safety Code – Illumination Of Means Of Egress And Emergency Lighting
169. Nfpa Life Safety Code – Inspection And Maintenance Of Emergency Lightings And Exits
170. Nfpa Life Safety Code – Marking Of Means Of Egress
171. Nfpa Life Safety Code – Performance Of Emergency Illumination System And Its Periodic Testing
- 60. Topnet Distribution FZCo, Dubai, UAE**
172. Data Center
173. Kvm Switches & Its Solutions
174. Market Research Analysis Of Information Transport Systems
175. Media Converters
176. Surveillance Cctv Systems
- 61. Transgulf Electro-Mechanical LLC, Dubai, UAE**
177. An Overview Of Store Department At Trans Gulf

- 178. Drafting And Quantity Surveying
- 179. Heating, Ventilating And Air Conditioning Systems (Hvac)
- 180. Project Planning At Burj Dubai District Cooling Plant
- 181. Qa/Qc And Hvac Operations At The Oberoi Centre
- 182. Quality Assurance/Quality Control (Qa/Qc)
- 183. Quantity Surveying (Qs)

**62. UASC Engineering & Ship Repair Services LLC, Dubai, UAE**

- 184. Services At Uasc Engineering And Ship Repair Services (LLC)

**63. United Diesel LLC, Dubai, UAE**

- 185. An Insight Into Braking And Engine Systems Of Vehicles
- 186. An Insight Into Braking Systems And General Service In Vehicles
- 187. An Insight Into Braking Systems Of Vehicles And Quality Systems Of Management

**64. V3 Media Solutions FZ LLC, Dubai, UAE**

- 188. Radio Automation, Traffic And Logging Software
- 189. Radio Station Software: Features And Functionality

**65. Zio Technologies LLC, Dubai, UAE**

- 190. Audio Integration For A High End Meeting Room
- 191. Audio/Visual Automation For A High End Meeting Room
- 192. User Interface Concepts And Gui Design For A High End Meeting Room
- 193. Video Integration For A High End Meeting Room

**66. Constellation Marine Services, Fujairah, UAE**

- 194. Superficial Condition Survey Pre-Purchase

**67. Nael General Contracting Group, Al Ain, UAE**

- 195. The Products Of Nael General Contracting Company

**68. Cluttons LLC, Sharjah, UAE**

- 196. Operations Of Property Management Software - Amlaki
- 197. Rental Solutions Using Property Management

**69. Geo Group, Sharjah, UAE**

- 198. Air Conditioning And Marketing
- 199. Air Conditioning And The Types Of Ac Systems
- 200. Air Conditioning And The Working Of Ac Systems
- 201. Air Conditioning Systems And The Sales Cycle

**70. L&T, ECC, Sharjah, UAE**

- 202. Activities At Dewa Project Site Of Pt & D, L& T Construction
- 203. Power Transmission And Distribution Works At L & T
- 204. Supply Chain Management And Prequalification Documents

**71. Murano Lighting Company LLC, Sharjah, UAE**

- 205. Database Creation, E-Marketing And Dimming Lights
- 206. Database Development
- 207. E-Marketing Strategies And Search Engine Optimization: Coding And Implementation

**72. Petrofac International, Sharjah, UAE**

- 208. Equipment Used In The Mechanical Department And The Workflow
- 209. Fire And Gas Devices Selection

210. Petrofac International Limited Internship – Gsf Project And Line Sizing

**73. Reitz Middle East FZe, Sharjah, UAE**

211. Centrifugal Fans

**74. Verger ET Delporte, Sharjah, UAE**

212. Air Circuit Breakers

213. Final Distribution Board Devices And Enclosures

214. Modbus Communication

215. Power Monitoring Unit

216. Testing Of Electrical Panels

**75. WS Atkins, Sharjah, UAE**

217. Process Engineering And Study Of Comprising Elements

219.. Working At Atkins – Oil And Gas Sector

**76. Bharti Airtel, Delhi, India**

220. 2g And Lte

221. Dsl Fault Rate Reduction

222. System Technical Operations

223. Uplink Of Services In Teleport

**77. Fortis Escort , Delhi, India**

224. Gamma Camera

225. Use Of Clims In Srl And Turn Around Time

226. Use Of Medtrak And Pacs In Radiology

227. Use Of Medtrak In Opd & Ipd Conversion Rate

**78. Microtek Inverters, Delhi, India**

228. Impact Of Advertisement & Pop At Outlets And Customer Behaviour In Delhi/Ncr

229. In House Power Generation For Fujikawa Plant

230. Product Pricing And Specifications

231. Value To End Consumers- An Important Pricing Parameter And Demand Analysis

**79. Okaya Batteries, Delhi, India**

232. Air Pollution Control Systems

233. Okaya Website Design, Smo And Blogs

234. Value To End Consumers - An Important Pricing Parameter And Demand Analysis

**80. Agri Gold Projects Limited, Hyderabad, India**

235. Agri Gold's Symphony

236. Analysis Of Rates For Building Work

237. Applications Of Autocad In Infrastructure Development

238. Building Material

**81. Elogic Solutions, Hyderabad, India**

239. Targeted Page Ranking For Seo

**82. Srr Projects, Hyderabad, India**

240. Construction Of A Pressurizer Or A Pressure Vessel

241. Study On Employee's Welfare Measure At SRR Projects

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**COMPUTING FACILITIES ACROSS THE CAMPUS**

S.No.	Location	Hardware	QTY	Software
		Equipment		
1	Server Room	Intel Xeon Quad Core E5310 1.60Ghz/1066 Mhz,8MB, IBM 146Gb SFF Non Hot Swap 10K SAS HDD, 2Gb(2X1Gb) PC2-5300 667 MHz ECC Chipkill DDR2,Qlogic 4Gb SFF Fibre Channel Expansion Card for IBM eServer Blade Center	2	Windows Server 2003 R2-Enterprise x64 edition, Domain Controller, Windows Server 2008 – Web Server Backup
		Intel Xeon Quad Core E5310 1.60Ghz/1066 Mhz, 8MB L2,2X1GB Chipkill, O/Bay SAS, 2Gb(2X2Gb) PC2-5300 667 MHz ECC Chipkill DDR2, IBM 146Gb SFF Non Hot Swap 10K SAS HDD FBDIMM, 4gb SFF Fibre Channel Expansion card for IBM eServer Bladecenter	3	Windows Server 2003 R2-Enterprise x64 edition, Microsoft Exchange 2007 ( HT, CA and MB)
		Intel Xeon Quad Core E5420 80W 2.50GHZ/133Mhz/12Mb L2,2X1Gb chk, O/Bay SAS, 2Gb(2X1Gb) PC2-5300 667 MHz ECC Chipkill DDR2 FBDIMM, IBM 146Gb SFF Non Hot Swap 10K SAS HDD Cyberoam CR500ia	3	Windows Server 2003 R2-Enterprise x64 – Spare proxy, Windows Server 2008 Domain Controller, Windows Server 2008 –Exchange 2010
		Intel Xeon Quad Core E5310 1.60Ghz/1066 Mhz, 8MB, IBM 146Gb SFF Non Hot Swap 10K SAS HDD, 2Gb(2X1Gb) PC2-5300 667 MHz ECC Chipkill DDR2, Qlogic 4Gb SFF Fibre Channel Expansion Card for IBM eServer Blade Center	1	Windows Server 2008 edition, DNS, DHCP
		Intel Xeon Quad Core E5310 1.60Ghz/1066 Mhz, 8MB, IBM 146Gb SFF Non Hot Swap 10K SAS HDD, 2Gb(2X1Gb) PC2-5300 667 MHz ECC Chipkill DDR2, Qlogic 4Gb SFF Fibre Channel Expansion Card for IBM eServer Blade Center	1	Windows Server 2003 R2-Enterprise x64 edition, Mathworks-Matlab
		3. 06Ghz P4Intel Xeon Processor, 2 GB RAM and 80Gb Hard disk	1	Windows Server 2003-Standard Edition, Autocad
		3.05GhzP4 Intel Xeon Processor,1Gb RAM and 80Gb Hard disk	1	Windows Server 2003-Standard Edition, McAfee AntiVirus
		3.6GhzP4 Intel Processor, 1.72Gb RAM and 80Gb Hard disk	1	Windows Server 2003-Standard Edition, Catia
		2.40Ghz P4 Intel Xeon Processor, 1Gb RAM and 80Gb Hard disk	1	Windows Server 2003-Standard Edition, Tally

S.No.	Location	Hardware	QTY	Software	
		Equipment			
		Intel Core 2Ghz,1GB Ram,160Gb HDD	2	Windows Server-2003-Enterprise Edition, App Test & Student Projects	
		Panasonic TDA 620	3		
		Panasonic TDA 600	1		
		Panasonic TVM 200	1		
2	Computer Programming Lab	ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	33	Windows XP, MS Office 2003	
		ACER: Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512 MB RAM, 40 GB HDD, Broadcom NetXtreme Gigabit Ethernet Network Card	29		
		IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz, 1.99Ghz , 1GB RAM, 150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	10		
3	Catia Lab	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz, 1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	31	Windows XP, MS Office 2003 and CATIA V5	
4	Engineering Graphics Lab	ACER: Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512 MB RAM, 40 GB HDD, Broadcom NetXtreme Gigabit Ethernet Network Card	16	Windows XP, MS Office 2003 and AutoCad2005	
		ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk,3COM Ether Link 10/100	49		
		IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	10		
5	Microprocessor Lab	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	26	Windows XP, MS Office 2003 and RedHat Linux 5.0 advanced platform	
		Intel Xeon 3060 Dual Core, 2.4Ghz,1GbRam, 160GbHDD	1		Red Hat Linux, Linux Server
		IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM, 150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	5		Windows XP, MS Office 2003
6	Physics Lab	ACER 5200, 2.4Ghz\Intel, 256MB	2	Windows XP, MS Office 2003	
7	Communication & Instrumentation Lab	ACER 5600, 2.80Ghz/Intel, 512 MB RAM	6	Windows XP, MS Office 2003, RS Logic PLC software and Lab view software	
		Compaq D510, 2.40Ghz\Intel, 256 MB	1		

S.No.	Location	Hardware	QTY	Software
		Equipment		
8	Digital Electronics Lab	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM, 150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	2	Windows XP, MS Office 2003
9	Analog Electronics Lab	ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows XP, MS Office 2003
10	EMEC Lab	ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows XP, MS Office 2003
11	Heat Transformation Lab	ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	3	Windows XP, MS Office 2003
		Compaq D510, 2.40Ghz\Intel	1	
12	Communication Lab	ACER:Intel Core 2 CPU 2.0GHz, 1 GB RAM, 150GB Hard Disk, DVD Writer	2	Windows XP, MS Office 2003 and Matlab 7 SIMULINK-R2010a
		Inter Core i5 CPU 650 @ 3.20 Ghz 2 Gb RAM 500 HDD	1	
13	MT (II) EEE Lab	ACER:Intel® Pentium 4 - 2.8 GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows XP, MS Office 2003
14	MT (II) Non EEE Lab	ACER:Intel® Pentium 4 - 2.8 GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows XP, MS Office 2003
15	Mechanical Workshop	ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows XP, MS Office 2003
16	Transport Phenomenon Lab	Assembled-3.0Ghz\Intel, 512 Mb RAM	1	Windows XP, MS Office 2003
17	CNC Lab	Assembled-3.0Ghz\Intel, 512 Mb RAM	2	Windows XP, MS Office 2003
18	Chemistry Lab	ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows XP, MS Office 2003
19	Biology Lab	ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows XP, MS Office 2003
20	Class Rooms	ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 1GB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	30	Windows XP, MS Office 2003
21	Divisions(Grading, PSP, PCP, AAR,SW,I&E)	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz, 1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	4	Windows XP, MS Office 2003
		ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 1GB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	9	

S.No.	Location	Hardware	QTY	Software
		Equipment		
22	Library	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz, 1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	6	Windows XP, MS Office 2003
		HP:Intel® Pentium 4 - 3.2GHzACPI uniprocessor PC, 1GB RAM, 80GB Hard Disk, 3COM Ether Link 10/100	10	Windows XP, MS Office 2003
		HP CompaqDL320 3.6Ghz Intel Xeon, 1Gb, 80GB HDD	1	Windows Server 2003-Standard Edition, Autolib
		Compaq D510, 2.40Ghz\Intel	16	Windows XP, MS Office 2003
		ACER:Intel® Pentium 4 - 2.8GHzACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	20	Windows XP, MS Office 2003
23	Faculty	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM, 150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	70	Windows XP, MS Office 2003
24	Administration	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	31	Windows XP, MS Office 2003

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### LIST OF EQUIPMENTS PROCURED DURING THE YEAR 2013

S. No	Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
<b>Production Technique Lab</b>		
1	Hamilton Syringe 1702 RNR 25ul Syr (22s/51/3) Code No. 80265	IMA Lab
2	F-Lathe Dynamometer Capacity 500 Kg In XYZ Direction With LCD Display, Model: UIL-15C	Workshop
3	Vapour Liquid Equilibrium Apparatus	Chemical Engineering Lab
4	Orsat Apparatus, (A) 4 Test Set App	
5	Bomb Calorimeter	
6	Pensky Martin (Flash Point)	
7	Cleveland Apparatus (Flash & Fire Pt)	
8	Flame Photometer (Manual)	
9	Cooling Tower	
10	Isothermal Batch Reactor	
11	Continuous Stirred Tank Reactor (Cstr)	
12	Tubular Reactor (Coil Type)	
13	Plug Flow Reactor (St. Tube Type)	
14	Stirred Tank Reactor In Series	
15	Uv Photo Reactor	
16	Semi-Batch Reactor	
17	Colorimeter (With 8 Filters)	
18	Orbital Shaker (8 Of 250 MI Conical Flask)	



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### NEW COURSES OFFERED DURING 2013

S. No.	Course No.	Course Title
1	BIOT F213	CELL BIOLOGY
2	BIOT F215	BIOPHYSICS
3	BIOT F244	INSTRU METHODS OF ANAL
4	BIOT F245	INTRO TO ENVIRON BIOTECH
5	BITS C791T	TEACHING PRACTICE I
6	BITS F221	PRACTICE SCHOOL I
7	CHE F241	HEAT TRANSFER
8	CHE F242	NUM METHOD FOR CHEM ENGG
9	CHE F243	MATERIAL SCIENCE & ENGG
10	CHE F244	SEPARATION PROCESSES I
11	CS F211	DATA STRUCTURES & ALGO
12	CS F212	DATABASE SYSTEMS
13	CS F241	MICROPROC & INTERFACING
14	ECE F241	MICROPROC & INTERFACING
15	ECE F242	CONTROL SYSTEMS
16	ECE F243	SIGNAL & SYSTEMS
17	ECE F244	MICROELECTRONIC CIRCUITS
18	EEE F241	MICROPROC & INTERFACING
19	EEE F242	CONTROL SYSTEMS
20	EEE F243	SIGNALS & SYSTEMS
21	EEE F244	MICROELECTRONIC CIRCUITS
22	INSTR F241	MICROPROC & INTERFACING
23	INSTR F242	CONTROL SYSTEMS
24	INSTR F243	SIGNALS & SYSTEMS
25	INSTR F244	MICROELECTRONIC CIRCUITS
26	ME F241	MACHINE DESIGN & DRAWING
27	ME F242	IC ENGINES
28	ME F243	PRODUCTION TECHNIQUES I
29	ME F244	KIN & DYN OF MACHINES
30	CHE F312	CHEMICAL ENGG LAB I
31	CHE F313	SEPARATION PROCESSES II
32	CHE F311	KINETICS & REACTOR DESIG
33	CHE F314	PROCESS DES PRINCIPLES I
34	EEE F311	COMMUNICATION SYSTEMS
35	MATH F212	OPTIMIZATION
36	EEE F313	ANALOG & DISIT VLSI DES
37	ME F311	HEAT TRANSFER
38	ME F312	ADV MECHANICS OF SOLIDS

39	ME F313	PRODUCTION TECHNIQUES II
40	CS F351	THEORY OF COMPUTATION
41	CS F372	OPERATING SYSTEMS
42	CS F301	PRINCIPLES OF PROGG LANG
43	CS F342	COMPUTER ARCHITECTURE
44	INSTR F311	ELECTRO INST & INST TECH
45	INSTR F312	TRANSD & MEASUREMENT TEC
46	INSTR F313	ANALOG & DIGIT VLSI DES
47	BIOT F311	RECOMOBINANT DNA TECH
48	BIOT F314	IND MICROBIO&BIOPRO ENGG
49	ECE F311	COMMUNICATION SYSTEMS
50	ECE F314	EM FILEDS & MICRO ENGG
51	ECE F434	DIGITAL SIGNAL PROCESS
52	CHE F421	BIOCHEMICAL ENGINEERING
53	CHE F411	ENVIR POLLUTION CONTROL
54	EEE F427	ELEC POWER UTIL & ILLUM
55	EEE F426	FIBRE OPTICS & OPTOELECT
56	ME F443	QUALI CONTRO ASSUR & REL
57	ME F451	MECHANICAL EQUIPMENT DES
58	ME F461	REFRIGERATION & AIRCOND
59	BITS F343	FUZZY LOGIC & APPL
60	CS F407	ARTIFICIAL INTELLIGENCE
61	INSTR F432	MEDICAL INSTRUMENTAITON
62	BIOT F242	INTRO TO BIOINFORMATICS
63	BIOT F345	PROTEOMICS
64	BITS C467	BIOETHICS & BIOSAFETY
65	BIOT F352	CELL & TISSUE CULTR TECH
66	EEE F313	ANALOG & DISIT VLSI DES
67	EEE F422	MODERN CONTROL SYSTEMS
68	MATH F212	OPTIMIZATION
69	MATH F243	GRAPHS AND NETWORKS
70	HUM F411	PROFESSIONAL ETHICS
71	BIO G532	BIOSTATISTICS & BIOMODEL
72	BIO G651	PROTEIN & ENZYME BIOENGG
73	CHE F266	STUDY PROJECT
74	EEE F266	STUDY PROJECT
75	ME F266	STUDY PROJECT
76	CS F266	STUDY PROJECT
77	BIOT F266	STUDY PROJECT
78	ECE F266	STUDY PROJECT
79	CS F366	LABORATORY PROJECT
80	CS F376	DESIGN PROJECT

**BITS Pilani**

# **annual report**

**2013**

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## **Part B5: Work-Integrated Learning Programmes**

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## WORK-INTEGRATED LEARNING PROGRAMMES

### B5.1 SENIOR OFFICERS OF THE WORK-INTEGRATED LEARNING PROGRAMMES

#### (a) Senior Officers

Prof. G Sundar, Deputy Director

Prof. S Gurunarayanan, Dean

Mr. K Venkatasubramanian, Associate Dean

Prof. G Venkiteswaran, Associate Dean

Prof. Raghunath Ratabole, Associate Dean

#### (b) New appointments

Prof. Srinivasa Prakash Regalla, Associate Dean

### B5.2 HISTORY

Since 1979, the Institute has been participating in the human resource development needs of the industries. The Institute has evolved several degree programmes by integrating the working environment of the employees with the learning environment required by the Institute. These programmes were first started as M.E. (Collaborative) programmes in 1979. Later, from 1988, the Institute ventured into Off-campus Work-Integrated Learning Programmes in Science and Technology areas. These programmes:

- (a) are targeted to meet the needs of continuing education of employed professionals;
- (b) are based on Science & Technology approach and operate disciplines that are non-conventional and Science & Technology oriented;
- (c) are designed for the purposeful acquisition of scientific methods, modern skills and involvement in open-ended experiments;
- (d) judiciously combine the flexibility and ingenuity of the off-campus system with all the regular features of the on-campus system; and
- (e) allow the employed professionals to pursue a meaningful and relevant university degree with minimum dislocation from their work environment.

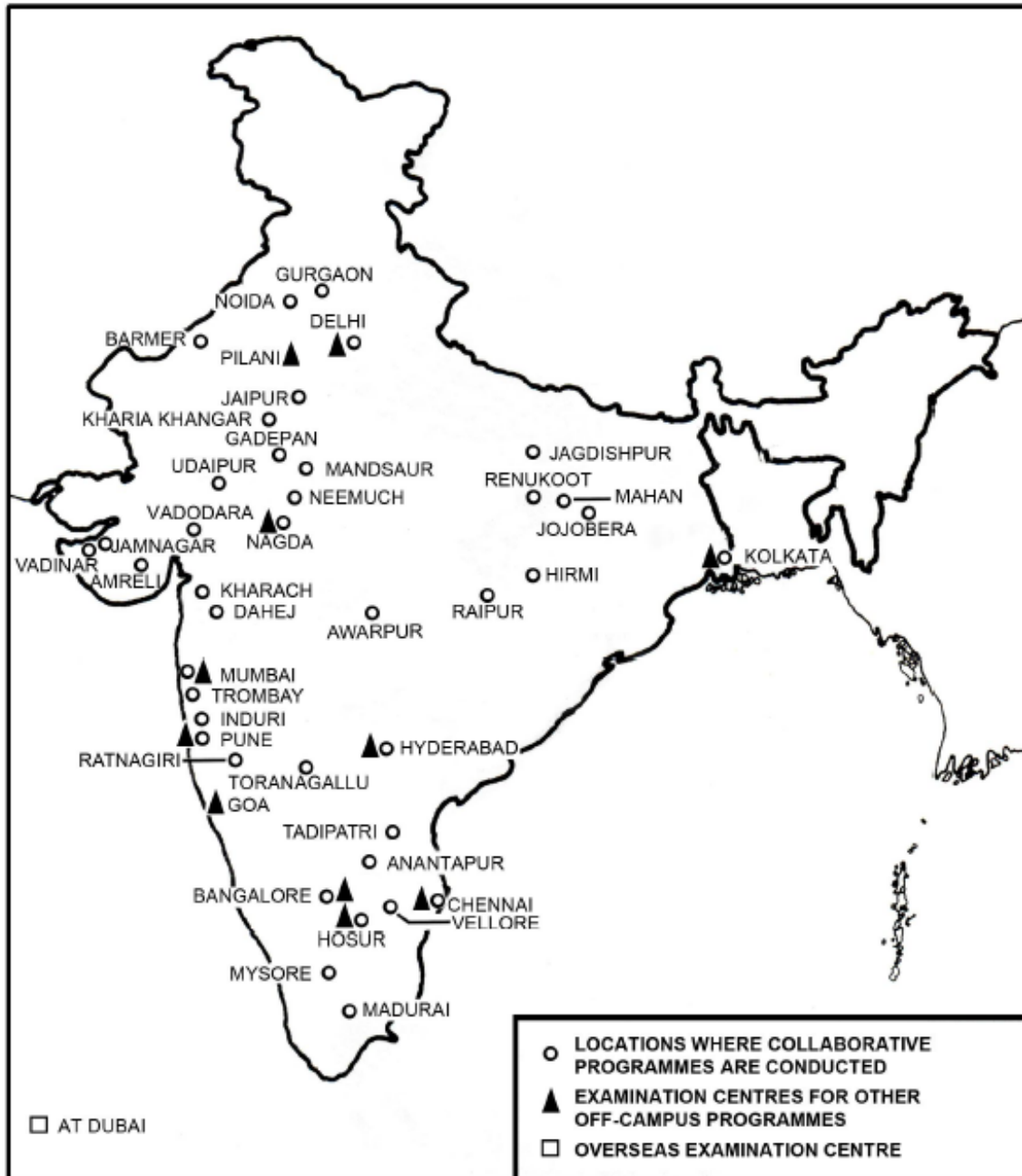
### B5.3 SALIENT FEATURES

All programmes offered under the Work-Integrated Learning Programmes are characterized by a person - centered approach where the rigour and standard are maintained as in the institute's on-campus programmes. While a number of on-campus programmes are also available under off-campus, the Institute interacts with various organizations like industries, hospitals and national laboratories with a view to design and offer specialized programmes. Many organizations sponsor their employees for various programmes, in order to prepare their human resources to meet the challenges posed by the growth of industries and rapid advancement of technology in India and abroad.

**B5.4 PROGRAMMES OFFERED**

<b>Programmes</b>	<b>Collaborating / Sponsoring Organization</b>
<b>B.S. Programmes</b>	
1. Engineering Design	- Eaton Technologies, Pune; L&T IES, Vadodara
2. Engineering Technology	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
3. Information Systems	- Designed for the HRD needs of a diverse spectrum of IT Industries, as well as Wipro Infotech, Mumbai, Wipro Technologies, Bangalore
4. Manufacturing Engineering	- Bharath Forge, Pune, TACO, Kirloskar, Pune; Vedanta, Jharsuguda
5. Marine Engineering	- Tolani Maritime Institute, Induri; RL Institute of Nautical Sciences, Madurai
6. Nautical Technology	- Tolani Maritime Institute, Induri; RL Institute of Nautical Sciences, Madurai
7. Optometry	- Sankara Nethralaya, Chennai; L V Prasad Eye Institute, Hyderabad; THONEH-NIOS, Malaysia
8. Physician Assistant	- Madras Medical Mission, Chennai; Frontier Lifeline, Chennai
9. Power Engineering	- ABG, JSW Energy; Tata Power, Mumbai, Essar Power, Hazira
10. Process Engineering	- Aditya Birla Group (Cement Business); Hindalco, Renukoot; JSW, Toranagallu; IndoGulf, Jagdishpur, Birla Cellulosic, Kosamba, Hindalco, Dahej; DRL Hyderabad; Vedanta Aluminium, Jharsuguda
<b>M.S. Programmes</b>	
1. Automotive Engineering	- Tata Technologies, Pune
2. Consultancy Management	- Consultancy Development Centre, New Delhi
3. Design Engineering	- Eaton Technologies, Pune;
4. Embedded Systems	- Eaton Technologies, John Deere, Pune; L&T IES, Vadodara; iGate Patni, Mumbai
5. Engineering Management	- Technip, Chennai, Mahindra & Mahindra, Nagpur
6. Manufacturing Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
7. Medical Laboratory Technology	- Sankara Nethralaya, Chennai
8. Microelectronics	- Wipro Technologies, Cypress, IBM, Qualcomm, Texas, Analog, Bangalore
9. Pharmaceutical Operations & Management	- Lupin, Mumbai; Wockhardt, Aurangabad
10. Project Engineering & Management	- DCPL, Kolkata
11. Quality Management	- Indian Institute of Quality Management, Jaipur
12. Science Communication	- National Council of Science Museums, Kolkata
13. Software Engineering	- Wipro Technologies, Wipro Infotech, Yahoo, SAP Labs, Sabre, EMC, Bangalore; Cognizant, Chennai; Mahindra Satyam, Qualcomm, Hyderabad; Tech Mahindra, Persistent Systems, Cybage, BMC Software, Pune; iGate Patni, Mumbai; Aricent, Virtusa, Chennai; TCS, Hyderabad
14. Software Systems	- Designed for the HRD requirements of a diverse spectrum of IT Industries
15. Systems Engineering	- Wipro Infotech, Wipro Technologies, Bangalore
16. Telecommunications & Software Engineering	- Tech Mahindra, Avaya, Pune
<b>M.Phil.</b>	
1. Hospital and Health Systems Management	- CMC Vellore; Bombay Hospital, Mumbai
2. Optometry	- Sankara Nethralaya, Chennai

**B5.5 MAP OF BITS WORK-INTEGRATED LEARNING & COLLABORATIVE PROGRAMMES 2013-2014**





**B5. 6 ADMISSIONS**

The number of students admitted in each of the semester is given below.

	<b>Integrated First Degree Programmes</b>	<b>Higher Degree Programmes</b>	<b>Total</b>
Second Semester 2012-2013	443(0064)	5771(2751)	6214(2815)
First Semester 2013-2014	928(103)	2353(557)	3281(660)

The programme-wise details are given in **Annexure 1 (Part B5)**.

**B5. 7 REGISTRATION OF STUDENTS**

The registration processes for both the semesters was completed on the first day of each semester.

<b>Semester</b>	<b>Number of students registered</b>
Second Semester 2012-2013	21556
First Semester 2013-2014	22075

Details of Registration of students for the First Semester 2013-2014 are given in **Annexure 2 (Part B5)**.

**B5.8 GEOGRAPHICAL DISTRIBUTION OF STUDENTS REGISTERED IN FIRST SEMESTER 2013-2014****(A) INDIA**

<b>State</b>	<b>No. of students</b>		
	<b>Specific</b>	<b>Non Specific</b>	<b>Total</b>
Andhra Pradesh	364	752	1116
Assam		12	12
Bihar		9	9
Chandigarh		8	8
Chattisgarh		12	12
Dadra & Nagar Haveli		2	2
Delhi		318	318
Goa		16	16
Gujarat	70	125	195
Haryana	140	180	320
Himachal Pradesh		11	11
Jammu & Kashmir		10	10
Jharkhand		23	23
Karnataka	10494	1702	12196
Kerala	11	202	213

State	No. of students		
	Specific	Non Specific	Total
Madhya Pradesh		60	60
Maharashtra	2550	840	3390
Manipur		2	2
Mizoram		2	2
Nagaland		3	3
Orissa		26	26
Pondicherry		37	37
Punjab		47	47
Rajasthan		112	112
Tamil Nadu	1253	1731	2984
Uttar Pradesh	13	213	226
Uttarakhand		23	23
West Bengal		108	108
<b>Total</b>	<b>14895</b>	<b>6586</b>	<b>21481</b>

**(B) Foreign**

Country	No. of students		
	Specific	Non Specific	Total
Bahrain		5	5
Kuwait		19	19
Malaysia	146	1	147
Oman		27	27
Qatar		31	31
Saudi Arabia		17	17
Singapore		33	33
Thailand		1	1
UAE		306	306
UK		5	5
USA		3	3
<b>Total</b>	<b>146</b>	<b>448</b>	<b>594</b>
<b>Grand Total</b>	<b>15041</b>	<b>7034</b>	<b>22075</b>

## B5.9 SPONSORED ORGANIZATIONS

During the year, 4349 organizations have sponsored their employees for Work Integrated Learning Programmes. List of the organizations are given in *Annexure 'B5-3'*.

## B5.10 ACADEMIC CALENDAR

For the year 2013, Second Semester 2012-2013 started on 5-1-2013 and ended on 30-04-2013, while First Semester 2013-2014 started on 13-07-2013 and ended on 30-11-2013 for all programmes except the following:

### Second Semester 2012-2013

Degree Programme	Organization	Starting Date	Ending Date
B.S. Information Systems	Wipro Infotech, Bangalore	02-02-2013	30-06-2013
B.S. Optometry	L.V.P.E.I., Hyderabad	31-12-2012	31-05-2013
B.S. Optometry	Sankara Netralaya, Chennai	03-01-2013	30-04-2013
B.S. Manufacturing Engineering	Bharat Forge Ltd.	20-01-2013	09-06-2013
B.S. Manufacturing Engineering	TACO, Pune	19-01-2013	08-06-2013
B.S. Nautical Technology	TMI, Pune	11-02-2013	13-07-2013
B.S. Marine Engineering	TMI, Pune	11-02-2013	13-07-2013
B.S. Physician Assistant	ICCTVD	18-01-2013	31-05-2013
B.S. Physician Assistant	ICVD	03-01-2013	31-05-2013
M.S. Software Engineering	Cybage, Pune	19-01-2013	25-05-2013
B.S. Engineering Design	Eaton, Pune	20-01-2013	08-06-2013
M.S. Pharmaceutical Operation & Management	Strides Archo Lab, Bangalore	10-12-2012	11-05-2013
M.S. Telecommunications & Software Engineering	Avaya, Pune	01-12-2012	07-04-2013
M.S. Software Engineering	BMC, Pune	02-02-2013	01-06-2013
M.S. Software Engineering	EMC, Bangalore	19-01-2013	01-06-2013
M.S. Project Engineering & Management	DCPL, Kolkata	02-02-2013	16-06-2013
M.S. Embedded Systems	Eaton, Pune	20-01-2013	8-06-2013
M.S. Embedded Systems	IGate Patni	02-02-2013	15-06-2013
M.S. Design Engineering	Eaton Tech., Pune	20-01-2013	08-06-2013
M.S. Pharmaceutical Operations & Management	Lupin, Mumbai	11-02-2013	02-06-2013
M.S. Embedded Systems	John Deere, Pune	05-01-2013	11-05-2013
M.S. Software Engineering	Tech Mahindra, Pune	19-01-2013	25-05-2013
M.S. Science Communication	NCSM, Kolkata	01-01-2013	24-05-2013
M.S. Software Engineering	IGate Patni, Mumbai	02-02-2013	15-06-2013
M.S. Software Engineering	Qualcomm, Hyderabad	27-01-2013	09-06-2013
M.S. Software Engineering	Sap Labs, Bangalore	27-01-2013	08-06-2013
M.S. Software Engineering	Persistent, Pune	05-01-2013	11-05-2013
M.S. Software Engineering	Wipro Technologies	02-02-2013	30-06-2013
M.S. Systems Engineering	Wipro Ltd., Bangalore	02-02-2013	30-06-2013
M.S. Microelectronics	Wipro Technologies, Kochi	02-02-2013	30-06-2013
M.S. Microelectronics	Wipro Technologies, Bangalore	02-02-2013	30-06-2013

Degree Programme	Organization	Starting Date	Ending Date
M.S. Systems Engineering	Wipro Ltd., Bangalore	02-02-2013	30-06-2013
M.S. Software Engineering	Virtusa, Hyderabad & Chennai	27-01-2013	09-06-2013
M.S. Software Engineering	Yahoo, Bangalore	02-02-2013	22-06-2013
M.S. Medical Laborator Technology	Sankara Nethralaya, Chennai	16-01-2013	15-05-2013
M.Phil. Optometry	Sankara Nethralaya, Chennai	03-01-2013	20-06-2013
M.S. Software Engineering	CTS, Chennai	02-02-2013	14-07-2013
M.S. Software Engineering	Mahindra Satyam, Hyderabad	20-01-2013	23-06-2013
M.S. Telecommunications & Software Engineering	Tech Mahindra, Pune	19-01-2013	25-05-2013
M.S. Software Engineering	Mahindra Satyam, Hyderabad	20-01-2013	23-06-2013
M.S. Software Engineering	SAP Labs, Bangalore	27-01-2013	08-06-2013
M.S. Software Engineering	Wipro Infotech, Bangalore	02-02-2013	30-06-2013
B.S. Process Engineering	Birla Cellulosic, Kosamba	21-01-2013	30-05-2013
B.S. Process Engineering	Hindalco, Dahej	21-01-2013	30-05-2013
B.S. Power Engineering	ABG	21-01-2013	30-05-2013
B.S. Power Engineering	Essar Power, Hazira	21-01-2013	30-05-2013
B.S. Power Engineering	JSW Energy	21-01-2013	30-05-2013
B.S. Power Engineering	Tata Power, Mumbai	21-01-2013	30-05-2013
B.S. Marine Engineering	RLINS, Madurai	01-02-2013	31-07-2013
B.S. Process Engineering	Indogulf, Jagdishpur	21-01-2013	30-05-2013
M.S. Embedded Systems	L&Ties, Vadodara	21-01-2013	30-05-2013

#### First Semester 2013-2014

Degree Programme	Organization	Starting Date	Ending Date
B.S. Information Systems	Wipro Infotech, Bangalore	07-09-2013	09-02-2014
B.S. Process Engineering	JSW Steel Ltd, Toranagallu	04-08-2013	05-01-2014
B.S. Optometry	L.V.P.E.I., Hyderabad	01-07-2013	30-11-2013
B.S. Optometry	Sankara Netralaya	08-07-2013	14-12-2013
B.S. Manufacturing Engineering	Bharat Forge Ltd.,Pune	21-07-2013	15-12-2013
B.S. Manufacturing Engineering	TACO.,Pune	03-08-2013	29-12-2013
B.S. Nautical Technology	TMI, Pune	12-08-2013	18-01-2014
B.S. Marine Engineering	TMI, Pune	12-08-2013	18-01-2014
B.S. Physician Assistant	ICCTVD, Chennai	03-08-2013	23-12-2013
B.S. Physician Assistant	ICVD, Chennai	15-07-2013	22-12-2013
M.S. Software Engineering	Cybage, Pune	03-08-2013	14-12-2013
B.S. Engineering Design	Eaton, Pune	21-07-2013	14-12-2013
M.S. Telecommunications & Software Engineering	Avaya, Pune	07-07-2013	27-10-2013
M.S. Software Engineering	BMC, Pune	20-07-2013	30-11-2013
M.S. Software Engineering	EMC, Bangalore	27-07-2013	23-11-2013
M.S. Project Engineering & Management	DCPL, Kolkata	20-07-2013	22-12-2013
M.S. Embedded Systems	Eaton, Pune	21-07-2013	14-12-2013

Degree Programme	Organization	Starting Date	Ending Date
M.S. Embedded Systems	IGate Patni	10-08-2013	28-12-2013
M.S. Design Engineering	Eaton, Pune	21-07-2013	14-12-2013
M.S. Pharmaceutical Operations And Management	Lupin, Mumbai	12-08-2013	08-12-2013
M.S. Embedded Systems	John Deere, Pune	08-07-2013	14-12-2013
M.S. Software Engineering	Tech Mahindra, Pune	03-08-2013	14-12-2013
M.S. Science Communication	NCSM, Kolkata	01-07-2013	23-11-2013
M.S. Software Engineering	IGate Patni, Mumbai	10-08-2013	28-12-2013
M.S. Software Engineering	Sap Labs, Bangalore	10-08-2013	21-12-2013
M.S. Software Engineering	Persistent, Pune	20-07-2013	30-11-2013
M.S. Software Engineering	Wipro Technologies	07-09-2013	09-02-2014
M.S. Systems Engineering	Wipro Ltd., Bangalore	07-09-2013	09-02-2014
M.S. Microelectronics	Wipro, Kochi	10-08-2013	18-01-2014
M.S. Microelectronics	Wipro, Bangalore	10-08-2013	18-01-2014
M.S. Systems Engineering	Wipro Ltd., Bangalore	07-09-2013	09-02-2014
M.S. Software Engineering	Virtusa, Hyderabad & Chennai	13-07-2013	08-12-2013
M.S. Software Engineering	Yahoo, Bangalore	27-07-2013	20-12-2013
M.S. Medical Laborator Technology	Sankara Nethralaya, Chennai	13-06-2013	30-11-2013
M.Phil. Optometry	Sankara Nethralaya, Chennai	01-08-2013	20-12-2013
M.S. Software Engineering	CTS, Chennai	03-08-2013	22-12-2013
M.S. Software Engineering	Mahindra Satyam, Hyderabad	21-07-2013	22-12-2013
M.S. Telecommunications And Software Engineering	Tech Mahindra, Pune	03-08-2013	14-12-2013
M.S. Software Engineering	Mahindra Satyam, Hyderabad	21-07-2013	22-12-2013
M.S. Software Engineering	Sap Labs, Bangalore	10-08-2013	21-12-2013
M.S. Microelectronics	Qualcomm, Cypress & IBM	27-07-2013	22-12-2013
B.S. Process Engineering	Birla Cellulosic, Kosamba	01-08-2013	23-12-2013
B.S. Process Engineering	Hindalco, Dahej	01-08-2013	23-12-2013
B.S. Power Engineering	ABG	01-08-2013	23-12-2013
B.S. Power Engineering	Essar Power, Hazira	01-08-2013	23-12-2013
B.S. Power Engineering	JSW Energy	01-08-2013	23-12-2013
B.S. Power Engineering	Tata Power, Mumbai	01-08-2013	23-12-2013
B.S. Marine Engineering	RLINS, Madurai	01-08-2013	21-12-2013
B.S. Nautical Technology	RLINS, Madurai	01-08-2013	21-12-2013
B.S. Process Engineering	Indogulf, Jagdishpur	01-08-2013	23-12-2013
M.S. Embedded Systems	L&Ties, Vadodara	01-08-2013	23-12-2013
B.S. Optometry	THONEH, Malaysia	08-07-2013	14-12-2013
B.S. Process Engineering	ABG	01-08-2013	23-12-2013
B.S. Manufacuring Engineering	Kirloskar, Pune	10-08-2013	22-12-2013
M.S. Engineering Management	Mahindra & Mahindra, Nagpur	01-08-2013	23-12-2013
M.S. Pharmaceutical Operation & Management	Wockhardt, Aurangabad	01-08-2013	23-12-2013
M.S. Systems Engineering	Wipro Infotech , Bangalore	07-09-2013	09-02-2014

**B5.11 COURSES OFFERED**

The number of courses, offered during the year 2013 is as follows:

	<b>Number of Courses offered</b>
Second Semester 2012-2013	622
First Semester 2013-2014	627

**B5.12 NEW COURSES INTRODUCED**

The new courses introduced during the year 2013 is as follows

<b>S.No.</b>	<b>Course No.</b>	<b>Course Title</b>
1.	MATH ZC 233	Calculus
2.	ET ZC413	Engineering Design
3.	ET ZC344	Instrumentation & Control
4.	ES ZC343	Microprocessors & Microcontrollers
5.	AE* ZG514	Advanced Automotive Systems
6.	AE* ZG516	Advances In Internal Combustion Engines
7.	AE* ZG524	Vehicle Dynamics
8.	AE* ZG532	Computer Aided Engineering
9.	AE* ZG611	Computational Fluid Dynamics And Heat Transfer
10.	AE* ZG612	Advances In Materials, Composites & Plastics
11.	AE* ZG621	Durability, Crash and Safety Engineering
12.	AE* ZG622	Advanced Manufacturing Processes
13.	AE* ZG633	Advances in Vehicle Body Structures
14.	METI ZC483	Dredgers and Dredging
15.	MERI ZC483	Dredgers and Dredging
16.	NTTI ZC411	Supply Chain Management
17.	NTTI ZC412	Shipping Finance & Insurance
18.	NTTI ZC413	Ship Agency Management
19.	NTTI ZC414	Ports & Terminals Management
20.	NTTI ZC415	Maritime Economics
21.	NTTI ZC416	Logistics & Multimodal Transport
22.	NTTI ZC417	Liner Shipping Business
23.	NTTI ZC418	Legal Aspects of Maritime Business
24.	NTTI ZC444	Project Work
25.	NTRI ZC411	Supply Chain Management
26.	NTRI ZC412	Shipping Finance & Insurance
27.	NTRI ZC413	Ship Agency Management
28.	NTRI ZC414	Ports & Terminals Management
29.	NTRI ZC415	Maritime Economics
30.	NTRI ZC416	Logistics & Multimodal Transport
31.	NTRI ZC417	Liner Shipping Business
32.	NTRI ZC418	Legal Aspects of Maritime Business
33.	NTRI ZC444	Project Work

**B5.13 LIVE INTERACTIVE LECTURE SESSIONS**

For the WILP courses offered during II Semester 2012-2013 and I Semester 2013-2014 for the B.S. Engineering Technology, B.S. Information Systems, B.S. Process Engineering, B.S. Power Engineering, M.S. Software Systems, M.S. Manufacturing Management, M.S. Embedded Systems degree programmes, live interactive online lecture sessions were delivered through Internet Based Desktop Video Conferencing systems using Cisco WebEx technology. The video lectures were also recorded and made available on-demand. The students and faculty could also interact asynchronously and share learning resources through an online Learning Management System named Taxila, based on Moodle technology.

**Second Semester 2012-2013**

S.No.	Course No.	Course Title
1.	AAOC ZC111	Probability & Statistics
2.	AAOC ZC221	Graphs and Networks
3.	AAOC ZC222	Optimization
4.	BITS ZC411	Object Oriented Programming
5.	BITS ZC461	Software Engineering
6.	BITS ZC471	Management Information Systems
7.	BITS ZC481	Computer Networks
8.	BITS ZG553	Real Time Systems
9.	BITS ZG659	Technical Communication
10.	CS ZG623	Advanced Operating Systems
11.	EA ZC412	Flexible Manufacturing Systems
12.	EA ZC451	Internetworking Technologies
13.	EA ZC473	Multimedia Computing
14.	EEE ZG512	Embedded System Design
15.	EMMM ZC471	Management Information Systems
16.	EMMM ZG511	Manufacturing Organization & Management
17.	EMMM ZG523	Project Management
18.	EMMM ZG621	Supply Chain Management
19.	ENGG ZC111	Electrical & Electronics Technology
20.	ENGG ZC232	Engineering Materials
21.	ENGG ZC241	Mechanical Technology
22.	ENGG ZC242	Maintenance and Safety
23.	ES ZC261	Digital Electronics & Microprocessors
24.	ESLT ZG525	Avionics Systems
25.	ESLT ZG533	Reconfigurable Computing
26.	ESLT ZG612	Fault Tolerant System Design
27.	ESLT ZG651	Networked Embedded Application
28.	ET ZC341	Instrumentation & Control
29.	ET ZC342	Materials Management
30.	ET ZC362	Environmental Pollution Control
31.	ET ZC412	Production Planning & Control
32.	ET ZC414	Project Appraisal
33.	ET ZC432	Quality Control Assurance & Reliability

S.No.	Course No.	Course Title
34.	HHSM ZC417	Managerial Communication
35.	IS ZC332	Database Systems & Applications
36.	IS ZC342	Structure of Programming Languages
37.	IS ZC351	Computer Organization & Architecture
38.	IS ZC361	Data Structures and Algorithms
39.	IS ZC362	Operating Systems
40.	IS ZC415	Data Mining
41.	IS ZC424	Software for Embedded Systems
42.	IS ZC462	Network Programming
43.	MATH ZC161	Engineering Mathematics – I
44.	MATH ZC222	Discrete Structures for Comp Science
45.	MATH ZC232	Engineering Mathematics – II
46.	MGTS ZC211	Principles of Management
47.	MM ZC411	Marketing
48.	MM ZC441	Human Resource Management
49.	MM ZG511	Manufacturing Organization & Management
50.	MM ZG521	Financial Management
51.	MM ZG522	Total Quality Management
52.	MM ZG523	Project Management
53.	MM ZG538	Toyota Production System
54.	MM ZG541	Product Design
55.	MM ZG542	Just-In-Time Manufacturing
56.	MM ZG611	Strategic Mgt & Business Policy
57.	MM ZG621	Supply Chain Management
58.	PEAB ZC121	Electrical & Electronics Technology
59.	PEAB ZC131	Engineering Mathematics - I
60.	PEAB ZC221	Principles of Management
61.	PEAB ZC313	Technical Report Writing
62.	PEHC ZC314	Power Plant Engineering
63.	PEHC ZC331	Quality Control Assurance & Reliability
64.	PEHC ZC383	Extractive Metallurgy
65.	PEHC ZC384	Fiber & Cellulosic Technology
66.	PEHC ZC385	Fertilizer Technology
67.	PEHC ZC413	Process Plant Safety & Environment
68.	POMWH ZC471	Management Information Systems
69.	POMWH ZG522	Quality Assurance & Regulatory Affairs
70.	POMWH ZG523	Project Management
71.	POMWH ZG531	Manufacturing Organization & Management
72.	POWAB ZC211	Computer Programming
73.	POWAB ZC221	Engineering Mathematics - I
74.	POWAB ZC231	Thermodynamics



S.No.	Course No.	Course Title
75.	POWAB ZC251	Electrical Technology
76.	POWAB ZC411	Environmental Pollution Control
77.	POWAB ZC421	Essential of Project Management
78.	POWAB ZC431	Maintenance & Safety
79.	POWAB ZC441	Power Systems Engineering - II
80.	POWES ZC411	Environmental Pollution Control
81.	POWES ZC421	Essential of Project Management
82.	POWES ZC431	Maintenance & Safety
83.	POWES ZC441	Power Systems Engineering - II
84.	POWJS ZC212	Engineering Mathematics - II
85.	POWJS ZC222	Electronics & Microprocessors
86.	POWJS ZC232	Principles of Management
87.	POWJS ZC242	Engineering Measurements
88.	POWTP ZC411	Environmental Pollution Control
89.	POWTP ZC421	Essential of Project Management
90.	POWTP ZC431	Maintenance & Safety
91.	POWTP ZC441	Power Systems Engineering - II
92.	SS ZG513	Network Security
93.	SS ZG514	Object Oriented Analysis and Design
94.	SS ZG515	Data Warehousing
95.	SS ZG516	Computer Organization & Soft Systems
96.	SS ZG518	Database Design & Applications
97.	SS ZG519	Data Structures & Algorithm Design
98.	SS ZG531	Pervasive Computing
99.	SS ZG562	Software Engineering & Management
100.	SS ZG653	Software Architectures
101.	TA ZC142	Computer Programming
102.	TA ZC232	Engineering Measurements
103.	TA ZC312	Technical Report Writing

**First Semester 2013-2014**

S.No.	Course No.	Course Title
1.	AAOC ZC111	Probability & Statistics
2.	AAOC ZC221	Graphs & Networks
3.	AAOC ZC222	Optimization
4.	AETT ZG511	Mechatronics
5.	AETT ZG514	Advanced Automotive Systems
6.	AETT ZG516	Advances In Internal Combustion Eng
7.	AETT ZG523	Project Management
8.	BITS ZC411	Object Oriented Programming
9.	BITS ZC461	Software Engineering
10.	BITS ZC471	Management Information Systems
11.	BITS ZC481	Computer Networks

S.No.	Course No.	Course Title
12.	BITS ZG553	Real Time Systems
13.	BITS ZG659	Technical Communication
14.	CS ZG525	Advance Computer Networks
15.	CS ZG623	Advanced Operating Systems
16.	EA ZC412	Flexible Manufacturing Systems
17.	EA ZC451	Internetworking Technologies
18.	EA ZC473	Multimedia Computing
19.	EEE ZG512	Embedded System Design
20.	EMMM ZC441	Human Resource Management
21.	EMMM ZG521	Financial Management
22.	EMMM ZG538	Toyota Production Systems
23.	EMMM ZG541	Product Design
24.	ENGG ZC111	Electrical & Electronics Technology
25.	ENGG ZC232	Engineering Materials
26.	ENGG ZC241	Mechanical Technology
27.	ENGG ZC242	Maintenance & Safety
28.	ES ZC261	Digital Electronics & Microprocessors
29.	ET ZC341	Instrumentation & Control
30.	ET ZC342	Materials Management
31.	ET ZC362	Environmental Pollution Control
32.	ET ZC412	Production Planning & Control
33.	ET ZC414	Project Appraisal
34.	ET ZC432	Quality Control Assurance & Reliability
35.	HHSM ZC417	Managerial Communication
36.	IS ZC332	Database Systems And Applications
37.	IS ZC342	Structure Of Programming Language
38.	IS ZC351	Computer Orgnaization & Architectures
39.	IS ZC361	Data Structures And Algorithms
40.	IS ZC362	Operating Systems
41.	IS ZC415	Data Mining
42.	IS ZC424	Software For Embedded Systems
43.	IS ZC462	Network Programming
44.	MMVA ZG521	Financial Managemet
45.	MMVA ZG522	Total Quality Management
46.	MMVA ZG538	Toyota Production Systems
47.	MMVA ZG541	Product Design
48.	MATH ZC161	Engineering Mathematics-I
49.	MATH ZC222	Discrete Structure For Computer Science
50.	MATH ZC232	Engineering Mathematics-II
51.	MATH ZC233	Calculus
52.	MATH ZC234	Linear Algebra & Optimization
53.	MGTS ZC211	Principles Of Management
54.	MM ZC411	Marketing
55.	MM ZC441	Human Resource Management
56.	MM ZG511	Manufacturing Organization & Mgmt
57.	MM ZG513	Maintenance Engineering
58.	MM ZG514	Leadership And Managing Change
59.	MM ZG521	Financial Managemet

S.No.	Course No.	Course Title
60.	MM ZG522	Total Quality Management
61.	MM ZG523	Project Management
62.	MM ZG534	Sustainable Manufacturing
63.	MM ZG538	Toyota Production Systems
64.	MM ZG541	Product Design
65.	MM ZG542	Just-In-Time Manufacturing
66.	MM ZG611	Strategic Management & Business Policy
67.	MM ZG621	Supply Chain Management
68.	PEAB ZC111	Computer Programming
69.	PEAB ZC212	Engineering Mathematics- li
70.	PEAB ZC222	Fluid Mechanics
71.	PEAB ZC232	Engineering Materials
72.	POMWH ZG512	Dosage Form Design
73.	POMWH ZG525	Pharmaceutical Process Development
74.	POMWH ZG542	Production & Operation Management
75.	POMWH ZG631	Tqm Tools And Techniques
76.	POWAB ZC212	Engineering Mathematics-li
77.	POWAB ZC222	Electronics & Microprocessors
78.	POWAB ZC232	Principles Of Management
79.	POWAB ZC242	Engineering Measurement
80.	POWJS ZC311	Prime Movers And Fluid Machines
81.	POWJS ZC321	Technical Report Writing
82.	POWJS ZC322	Power Generation
83.	POWJS ZC331	Instrumentation & Control
84.	SS ZG513	Network Security
85.	SS ZG514	Object Oriented Analysis & Design
86.	SS ZG515	Data Warehousing
87.	SS ZG516	Computer Organization & Software System
88.	SS ZG518	Database Design And Application
89.	SS ZG519	Data Structure And Algorithm Design
90.	SS ZG527	Cloud Computing
91.	SS ZG531	Pervasive Computing
92.	SS ZG562	Software Engineering And Management
93.	SS ZG622	Software Project Management
94.	SS ZG653	Software Architectures
95.	TA ZC163	Computer Programming
96.	TA ZC164	Computer Programming
97.	TA ZC232	Engineering Measurement
98.	TA ZC312	Technical Report Writing

#### B5.14 PROJECT WORK AND DISSERTATION

Students of B.S. programmes do a full-semester Project Work in their final semester, while students of higher degree programmes like M.S. and M.Phil. submit a Dissertation based on a research and development effort. **Annexure 4** and **Annexure 5** list the titles of some of the Projects and Dissertations submitted by the students of WILP during the year 2013.

#### B5.15 ACADEMIC AND PROFESSIONAL COUNSELLING

During the year, the Academic Monitoring Board (AMB), estimated the extent to which students under its purview fell short of the minimum academic performance, drew up a time-frame within which

afflictions were to be removed, determined the package of courses for their registration in each semester and laid down the necessary stipulations for achieving intermediate targets. It further monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of students under its purview during the year is given below:

		II Semester 2012-2013	I Semester 2013-2014
1.	Registered and under the under the purview of AMB at the beginning of the semester	1078	1243
2.	Declared outside the purview of AMB at the end of the semester	320	475
3.	Discontinued during the semester	6	13
4.	Continue to be under the purview of AMB	752	755
5.	New cases referred to AMB at the end of the Semester	927	640
6.	Under the purview of AMB at the beginning of the next semester	1679	1408
7.	Registered and under the purview of AMB at the beginning of the next semester	1243	777

### B5.16 AWARD OF DEGREES

During the year, a total of 4877 students graduated. The details on the award of degrees are given below.

	Number of degrees awarded
72 <sup>nd</sup> Award (vide Board of Governors meeting held on 20.03.2013)	3007(895)
73 <sup>rd</sup> Award (vide Board of Governors meeting held on 19.07.2013)	1903(422)
<b>Total:</b>	<b>4910(1317)</b>
74 <sup>th</sup> Award (subject to approval from Board of Governors meeting in its next meeting)	2444(596)

Statistical details of these degrees are given in **Annexure 6 (Part B5)**.

### B5.17 NEW COLLABORATIVE PROGRAMMES INTRODUCED

The following new corporate partnership programmes were introduced during the year 2013

1. B.S. Manufacturing Engineering (Kirloskar Oil Engines, Pune)
2. B.S. Process Engineering (Dr Reddy's Laboratories, Hyderabad)
3. B.S. Process Engineering (Vedanta Aluminium, Jharsuguda)
4. M.S. Automotive Engineering (Tata Technologies, Pune)
5. M.S. Embedded Systems (iGate Patni, Mumbai)
6. M.S. Engineering Management (Mahindra & Mahindra, Nagpur)
7. M.S. Manufacturing Management (Vedanta Aluminium, Jharsuguda)
8. M.S. Microelectronics (Cypress Semiconductors and Qualcomm, Bangalore)
9. M.S. Microelectronics (Texas Instruments and Analog Devices, Bangalore)
10. M.S. Pharmaceutical Operations and Management (Wockhardt, Aurangabad)
11. M.S. Software Engineering (Aricent Technologies, Gurgaon)
12. M.S. Software Engineering (TCS, Hyderabad)

## B5.18 COLLABORATIVE PROGRAMMES UNDER DISCUSSION

The new collaborative programmes under discussion are indicated below:

1. B.S. Engineering Design (Maruti Suzuki India, Gurgaon)
2. B.S. Engineering Technology (Infotech Enterprises, Hyderabad)
3. B.S. Manufacturing Engineering (Bajaj Auto, Pune)
4. B.S. Manufacturing Engineering (Ceat Tyres, Halol)
5. B.S. Manufacturing Engineering (Force Motors, Pune)
6. B.S. Manufacturing Engineering (Tata Motors, Mumbai)
7. B.S. Power Engineering (Hindalco Industries, Mahan)
8. B.S. Process Engineering (Adventz Group, Gurgaon)
9. B.S. Process Engineering (Bhushan Steel, Odisha)
10. B.S. Process Engineering (Hindalco Industries, Mahan)
11. M.S. Engineering Management (Tractors and Farm Equipment (TAFE), Chennai)
12. M.S. Pharmaceutical Operations and Management (Glenmark Generics Ltd.)
13. M.S. Pharmaceuticals (Cipla Ltd., Mumbai)
14. M.S. Power Engineering (NALCO, Angul)
15. M.S. Software Engineering (Oracle, Bangalore)
16. M.S. Software Engineering (Zensar Technologies, Pune)
17. M.S. Design Engineering (SKF, Pune)
18. M.S. Microelectronics (Broadcom, Bangalore)

### New initiatives

#### Market Research for opportunity identification

BITS Pilani engaged the services of Avalon Consulting, Mumbai to conduct a market study to assess continuing education and training needs in various sectors of industry. The objective of this study is to help decide on which areas to focus in developing Work Integrated learning Programmes. The study was conducted over a period of three months. The study included mainly three modules viz, prioritization of sectors, sectoral market assessment and competition landscape. The study was carried out by the consultants various using data sources, secondary research data, interviews with select Industries and students and faculty members. Auto and Auto Components, IT and ITES, Electronics & Hardware, Chemicals and Pharmaceuticals were identified as priority sectors for detailed study for opportunity identification. The Study reports will be used for planning the WILP growth going forward.

#### Engagement with Strategy Consultant Firm

To evolve methods to address the challenges such as rapidly changing training needs of the industry, competitions from other providers, increasing incursion of technologies in higher education and ability to respond rapidly BITS, Pilani partnered with Strategy Consulting firm Mckinsey to help formulate a Strategic Plan for WILP going forward. The Assignment started with consolidating the current status of WILP, setting up the aspirations and development & alignment of a detailed work plan. This was span over a period of four weeks. Next Phase was span over a period four weeks to form the 'Where to Play strategy'. The study included market backed view of key segments, demand side view by customer interviews, supply side view based on various data sources student interviews and idea generation workshops.

Based on the outcomes from the market study, smaller focus group discussions were conducted by a team of BITS faculty members along with the Mckinsey team, to arrive at 'Where to Play' Prioritization of sectors. This was also based on WILP aspirations, market potential and internal capability to deliver.

The final Phase was on 'How to Play strategy' spanning over a period of 4 weeks. This was done leveraging best practices and expert inputs. Multiple interactions with the BITS team were conducted by Mckinsey. Workshops with different work stream teams were conducted. The outcome is in the form of a strategic framework to help transform WILP into a robust organization. The different focus areas identified are Organization design plus 'Go to Market' processes, Programme and curriculum design, Content development and Technology enablement, Faculty model and delivery model. Key enablers were also identified. A Roadmap was drawn to implement these initiatives in the coming months.

**Framework design for Guest faculty Competency & Assessment**

With the objective of initiating an integrated process for guest faculty identification and development, BITS, Pilani partnered with Mercer Consultants in creating a competency framework and assessment tool. This is to help both in identifying areas of development, as well as provide a platform to subsequently explore a deeper and wider engagement with individual guest faculty members. This will be administered on the existing set of guest faculty as well as to be used in the recruitment of new faculty going forward.

**Online Labs for certain computing courses**

An Online Labs facility to enable WILP students to practice laboratory exercises for certain computing courses was started in the year 2012 and deployed as a separate Online Labs portal in the year 2013. This portal enables students to access various software tools and compilers through the lab servers and carry out laboratory exercises interactively through the web interface. The courses currently supported by the portal include Advanced Programming Techniques, Data Structures & Algorithms, Database Systems & Applications, Computer Programming, Object Oriented Programming, Network Programming and Structure of Programming Languages.

**Creation of new cadre of faculty for off campus programmes.**

We created a new cadre of faculty at off-campus locations to run and manage the Work Integrated Learning Programmes. These are people who come with a strong blend of academic and industry experience. These are faculty who will be trained to teach courses for industry professionals, work closely with on-campus faculty and guest faculty. They will also work towards design and development of industry oriented programmes as well as mentor students in the Practice School programmes. One round of recruitment process was completed and offers were made to selected faculty.

**B5.19 FUTURE PERSPECTIVES**

Setting up of a robust organizations for the sustenance and growth of WILP, increased use of technology in various student lifecycle processes, bringing in blended learning approach to more courses, bringing in some of the best practices such as go-to-market, deeper industry engagement to understand the industry needs in a structured way, and creation of new faculty tracks are some of the activities which are planned in the coming year.

## DETAILS OF ADMISSIONS MADE DURING THE YEAR 2013

### (A) Second Semester 2012-2013

PROGRAMMES	No. of students joined	
1. Integrated First Degree Programmes:		
B.S.		
Engineering Technology	139(02)	
Information Systems	174(62)	
Manufacturing Engineering	28(00)	
Power Engineering	31(00)	
Process Engineering	71(00)	
		443(0064)
2. Higher Degree Programme:		
M.S.		
Design Engineering	44(0010)	
Embedded Systems	38(0010)	
Engineering Management	43(0000)	
Manufacturing Management	177(0005)	
Microelectronics	105(0028)	
Pharmaceutical Operations and Management	37(0000)	
Project Engineering & Management	20(0002)	
Science Communication	15(0004)	
Software Engineering	4651(2514)	
Software Systems	548(0142)	
Systems Engineering	40(0013)	
Telecommunications and Software Engineering	53(0020)	
		5771(2751)
Total		6214(2815)

**(B) First Semester 2013-2014**

PROGRAMMES	No. of students joined	
1. Integrated First Degree Programmes:		
B.S.		
Engineering Technology	275(04)	
Information Systems	29(01)	
Manufacturing Engineering	79(02)	
Marine Engineering	250(01)	
Nautical Technology	79(00)	
Optometry	104(70)	
Physician Assistant	24(21)	
Process Engineering	88(04)	
		<u>928(103)</u>
2. Higher Degree Programmes:		
M.S.		
Automotive Engineering	33(001)	
Consultancy Management	122(017)	
Engineering Management	20(006)	
Manufacturing Management	419(024)	
Microelectronics	39(006)	
Quality Management	168(032)	
Software Engineering	417(127)	
Software Systems	1033(300)	
Telecommunications & Software Engineering	51(020)	
M.Phil.		
Hospital and Health Systems Management	44(19)	
Optometry	7(05)	
		<u>2353(557)</u>
		<u><b>3281(660)</b></u>
	<b>Total</b>	

**SUMMARY**

	II Semester 2012-13	I Semester 2013-14	Total
Integrated First Degree Programmes	443(0064)	928(103)	1371(0167)
Higher Degree Programmes	5771(2751)	2353(557)	8124(3308)
<b>Total</b>	6214(2815)	3281(660)	9495(3475)



## NUMBER OF STUDENTS REGISTERED IN FIRST SEMESTER 2013-2014

Programme	Year of Admission						Total
	2008 and earlier	2009	2010	2011	2012	2013	

### A. Integrated First Degree Programmes

#### B.S.

Engineering Design	-	-	32(06)	-	24(05)	-	56(11)
Engineering Technology	134(04)	72(02)	213(14)	346(08)	353(06)	275(04)	1393(38)
Information Systems	28(02)	1(00)	88(16)	121(31)	170(62)	29(01)	437(112)
Manufacturing Engineering	-	-	2(00)	77(02)	112(01)	79(02)	270(05)
Marine Engineering	25(00)	57(00)	338(03)	281(02)	235(01)	250(01)	1186(07)
Nautical Technology	16(00)	56(00)	109(01)	77(01)	78(01)	79(00)	415(03)
Optometry	1(00)	14(11)	73(49)	90(72)	85(61)	66(61)	329(254)
Physician Assistant	-	-	35(28)	27(20)	8(08)	24(21)	94(77)
Power Engineering	-	-	117(00)	-	80(00)	-	197(00)
Process Engineering	-	-	75(01)	-	145(02)	88(04)	308(07)
<b>Sub. Total</b>	<b>204(06)</b>	<b>200(13)</b>	<b>1082(118)</b>	<b>1019(136)</b>	<b>1290(147)</b>	<b>890(94)</b>	<b>4685(514)</b>

### B. Higher Degree Programmes

#### M.S.

Automotive Engineering	-	-	-	-	-	33(01)	33(01)
Consultancy Management	-	2(00)	1(00)	8(01)	94(11)	122(17)	227(29)
Design Engineering	-	-	-	3(00)	43(10)	-	46(10)
Embedded Systems	-	-	-	77(13)	37(10)	-	114(23)
Engineering Management	-	-	-	-	42(00)	20(06)	62(06)
Integrated Software Systems	-	-	-	-	-	7(02)	7(02)

Programme	Year of Admission						Total
	2008 and earlier	2009	2010	2011	2012	2013	
Manufacturing Management	10(00)	6(01)	22(01)	156(06)	439(20)	419(24)	1052(52)
Medical Laboratory Technology	-	-	-	1(01)	-	-	1(01)
Microelectronics	-	-	-	36(08)	99(26)	39(06)	174(40)
Pharmaceutical Operations and Management	-	-	-	-	80(04)	-	80(04)
Project Engineering & Management	-	-	-	-	20(02)	-	20(02)
Quality Management	-	2(01)	6(00)	12(03)	129(20)	168(32)	317(56)
Science Communication	-	-	-	-	15(04)	-	15(04)
Software Engineering	25(01)	512(308)	115(1124)	3687(1919)	4909(2610)	417(127)	11665(6089)
Software Systems	57(07)	42(09)	78(10)	550(130)	1304(337)	1026(298)	3057(791)
Systems Engineering	-	-	85(27)	41(11)	42(13)	-	168(51)
Telecommunications & Software Engineering	-	-	4(02)	15(05)	184(50)	51(20)	254(77)
<b>M.Phil.</b>							
Hospital & Health Systems Management	-	1(00)	-	3(00)	36(18)	44(19)	84(37)
Optometry	-	-	-	-	7(04)	7(05)	14(09)
<b>Sub. Total</b>	<b>92(08)</b>	<b>565(319)</b>	<b>2311(1164)</b>	<b>4589(2097)</b>	<b>7480(3139)</b>	<b>2353(557)</b>	<b>17390(7284)</b>
<b>Total Off-campus</b>							<b>22075(7798)</b>

**Note:** The numbers in brackets indicate number of female students.

**LIST OF ORGANIZATIONS WHO HAVE SPONSORED THEIR EMPLOYEES FOR  
WORK INTEGRATED LEARNING PROGRAMMES OF BITS**

1.	1010 LOGIC PVT. LTD.	COIMBATORE
2.	24X7 CUSTOMER PVT. LTD.	BANGALORE
3.	300 PLUS CONSULTANT LTD.	NEW DELHI
4.	3D PLM SOFTWARE SOLUTIONS LTD.	KURDUWADI
5.	3D PLM SOFTWARE SOLUTIONS LTD.	PUNE
6.	3I INFOTECH LTD.	TANJORE
7.	3I TECHNOLOGY SOLUTIONS PVT. LTD.	BANGALORE
8.	3M INDIA LTD.	CHENNAI
9.	3M INDIA LTD.	HOSUR
10.	A. O. SMITH INDIA WATER HEATING PVT. LTD.	BANGALORE
11.	A.P. BAVA CONSTRUCTION COMPANY LLC	DUBAI
12.	A2 INFOSYSTEM PVT. LTD.	BAREILLY
13.	A2Z FILTRATION SPECIALITIES PVT. LTD.	NEW DELHI
14.	A3 LOGICS (INDIA) LTD.	JAIPUR
15.	AAM PANTNAGAR AXLE PVT. LTD.	UDHAM SINGH NAGAR
16.	ABB GISL LTD.	BANGALORE
17.	ABB GISL LTD.	CHENNAI
18.	ABB GISL LTD.	THURAIYUR
19.	ABB GISL LTD.	TIRUVANNAMALAI
20.	ABB GLOBAL INDUSTRIES & SERVICES LTD.	BANGALORE
21.	ABB GLOBAL INDUSTRIES & SERVICES LTD.	CHENNAI
22.	ABB GLOBAL INDUSTRIES & SERVICES LTD.	DEVAPUR
23.	ABB GLOBAL INDUSTRIES & SERVICES LTD.	TIRUNELVELI
24.	ABB INDIA LTD.	BANGALORE
25.	ABB INDIA LTD.	CHENNAI
26.	ABB INDIA LTD.	NASHIK
27.	ABB INDIA LTD.	NEW DELHI
28.	ABB INDUSTRIES LLC	DUBAI
29.	ABB PTE.LTD	SINGAPORE
30.	ABCL SAFETY CONSULTANTS	DUBAI
31.	ABDULLAH A.M. AL-KHODARI SONS CO.	AL-KHOBAR
32.	ABG CEMENT BUSINESS	MUMBAI
33.	ABHIJEET TECHNO-PLAST INDIA PVT. LTD.	NASHIK
34.	ABI SHOWATECH (INDIA) LTD.	SALALAH
35.	ABI SHOWATECH (INDIA) LTD.	SHOLINGHUR
36.	ABI SHOWATECH OMAN LLC ( FZC )	SALALAH
37.	ABILASH CHANDRAN	COIMBATORE
38.	ABS GROUP INC	ABU DHABI
39.	ABU DHABI AIRCRAFT TECHNOLOGIES	ABU DHABI
40.	ABU DHABI AIRCRAFT TECHNOLOGIES	ABU DHABI
41.	ABU DHABI COMPANY FOR ONSHORE OPERATIONS	ABU DHABI
42.	ABU DHABI GAS INDUSTRIES LTD.	KULITHALAI
43.	ABU DHABI GAS INDUSTRIES LTD.	RUWAIS
44.	ABU DHABI GAS INDUSTRIES LTD. GASCO	ABU DHABI
45.	ABU DHABI GAS INDUSTRIES LTD. GASCO	HABSHAN
46.	ABU DHABI HEALTH SERVICES CO.	ALAIN
47.	ABU DHABI MARI TIME & MERCANTILE INTERNAT	ABU DHABI

48.	ABU DHABI OIL FIELD SERVICES EST.	ABU DHABI
49.	ABU DHABI OIL REFINING COMPANY	ABU DHABI
50.	ABU DHABI OIL REFINING COMPANY	KADI
51.	ABU DHABI OIL REFINING COMPANY	RUWAIS
52.	ABUL KHAIR STEEL MELTING LTD.	JODHPUR
53.	ACC GLOBAL LTD.	KANNUR
54.	ACC LTD.	KOLKATA
55.	ACCEL FRONT LINE LTD.	DELHI
56.	ACCEL FRONT LINE LTD.	ERNAKULAM
57.	ACCEL FRONT LINE LTD.	THRISSUR
58.	ACCENTURE SERVICES PVT. LTD.	BANGALORE
59.	ACCENTURE SERVICES PVT. LTD.	BHARATPUR
60.	ACCENTURE SERVICES PVT. LTD.	CHENNAI
61.	ACCENTURE SERVICES PVT. LTD.	COIMBATORE
62.	ACCENTURE SERVICES PVT. LTD.	DOMBIVLI
63.	ACCENTURE SERVICES PVT. LTD.	ERNAKULAM
64.	ACCENTURE SERVICES PVT. LTD.	GHAZIABAD
65.	ACCENTURE SERVICES PVT. LTD.	GURGAON
66.	ACCENTURE SERVICES PVT. LTD.	HUBLI
67.	ACCENTURE SERVICES PVT. LTD.	HYDERABAD
68.	ACCENTURE SERVICES PVT. LTD.	KANPUR
69.	ACCENTURE SERVICES PVT. LTD.	KOLKATA
70.	ACCENTURE SERVICES PVT. LTD.	KOTTAYAM
71.	ACCENTURE SERVICES PVT. LTD.	LUDHIANA
72.	ACCENTURE SERVICES PVT. LTD.	MADURAI
73.	ACCENTURE SERVICES PVT. LTD.	MEERUT
74.	ACCENTURE SERVICES PVT. LTD.	MYSORE
75.	ACCENTURE SERVICES PVT. LTD.	NEW DELHI
76.	ACCENTURE SERVICES PVT. LTD.	PATHANAMTHITTA
77.	ACCENTURE SERVICES PVT. LTD.	PUDUCHERRY
78.	ACCENTURE SERVICES PVT. LTD.	PUNE
79.	ACCENTURE SERVICES PVT. LTD.	THANE
80.	ACCENTURE SERVICES PVT. LTD.	THRISSUR
81.	ACCENTURE SERVICES PVT. LTD.	TRICHY
82.	ACCESS INDIA IMPEX CENTRE PVT. LTD.	NEW DELHI
83.	ACCOLITE SOFTWARE INDIA PVT. LTD.	HYDERABAD
84.	ACCORD SOFTWARE & SYSTEMS PVT. LTD.	BANGALORE
85.	ACCORD SOFTWARE & SYSTEMS PVT. LTD.	BELLARY
86.	ACCORD SOFTWARE & SYSTEMS PVT. LTD.	MYSORE
87.	ACCURATE LOGISTICS	CHENNAI
88.	ACE MANUFACTURING SYSTEMS LTD.	BANGALORE
89.	ACE STEEL FAB PVT. LTD.	PALWAL
90.	ACG PAM PHARMA TECHNOLOGIES PVT. LTD.	MUMBAI
91.	ACI WORLDWIDE	MUMBAI
92.	ACI WORLDWIDE SOLUTIONS P LTD.	BANGALORE
93.	ACIDAES SOLUTIONS PVT. LTD.	NEW DELHI
94.	ACME ELECTROMECHANICAL WORKS LLC	DUBAI
95.	ACS, A XEROX COMPANY	GURGAON
96.	ACS, A XEROX COMPANY	KOCHI
97.	ACS,A XEROX COMPANY	BANGALORE
98.	ACTION ISPAT & POWER(P) LTD.	KANPUR
99.	ACUMENT FASTENING SYSTEMS	COIMBATORE
100.	ADA-DRDO	YAMUNANAGAR
101.	ADAMS STUDIO INDIA PVT. LTD.	CHENNAI
102.	ADD ENERGY & PARTNER LLC	CHENNAI

103.	ADD ENERGY & PARTNER LLC	NAGERCOIL
104.	ADECCO INDIA PVT. LTD.	JAIPUR
105.	ADITI TECHNOLOGIES PVT. LTD.	BANGALORE
106.	ADITI TECHNOLOGIES PVT. LTD.	KOMARAPALAYAM
107.	ADITYA BIRLA GROUP	HIRMI
108.	ADITYA BIRLA GROUP (CEMENT BUSINESS)	HINDALCO
109.	ADITYA BIRLA GROUP (CEMENT BUSINESS)	RENUKOOT
110.	ADITYA MULTI CARE HOSPITAL	TUNI
111.	ADMA-OPCO	PUDUKKOTTAI
112.	ADOBE SYSTEMS INDIA PVT. LTD.	BANGALORE
113.	ADOBE SYSTEMS INDIA PVT. LTD.	BIJNOR
114.	ADOBE SYSTEMS INDIA PVT. LTD.	DEHRADUN
115.	ADOBE SYSTEMS INDIA PVT. LTD.	GHAZIABAD
116.	ADOBE SYSTEMS INDIA PVT. LTD.	GURGAON
117.	ADOBE SYSTEMS INDIA PVT. LTD.	NEW DELHI
118.	ADOBE SYSTEMS INDIA PVT. LTD.	NOIDA
119.	ADOBE SYSTEMS INDIA PVT. LTD.	RISHIKESH
120.	ADOR POWERTRON LTD.	PUNE
121.	ADP INDIA PVT. LTD.	HYDERABAD
122.	ADP INDIA PVT. LTD.	PUNE
123.	ADRENALIN ESYSTEMS LTD.	CHENNAI
124.	ADVAIYA SOLUTION PVT. LTD.	UDAIPUR
125.	ADVANCED MICRO DEVICES	HYDERABAD
126.	ADYARD ABU DHABI LLC	ABU DHABI
127.	AECOM INDIA PVT. LTD.	KOLKATA
128.	AEQUOR INFORMATION TECHNOLOGIES PVT. LTD.	CHENNAI
129.	AESTHETIC DENTAL CARE CENTRE	PATIALA
130.	AFFILIATED COMPUTER SERVICES	BANGALORE
131.	AFTC, INDIAN AIR FORCE	BANGALORE
132.	AGARAM INSTRUMENTS PVT. LTD.	TRICHY
133.	AGFA HEALTHCARE SOLUTIONS	DUBAI
134.	AGGREKO ENERGY RENTAL INDIA PVT. LTD.	CHENNAI
135.	AGGREKO ENERGY RENTAL INDIA PVT. LTD.	FARIDABAD
136.	AGILENT TECHNOLOGIES INC.	DELHI
137.	AGILIAD TECHNOLOGIES PVT.LTD.	PUNE
138.	AGILIQ INFO SOLUTIONS	HYDERABAD
139.	AGNICE INTERNATIONAL & PARTNERS L.L.C	ERNAKULAM
140.	AHLUWALIA CONTACTS INDIA LTD.	NEW DELHI
141.	AHMADIAH CONTRACTING & TRADING COMPANY	VIZIANAGARAM
142.	AIBEL PTE LTD.	CHENNAI
143.	AIBEL PTE LTD.	SINGAPORE
144.	AIBEL PTE LTD.	TANJAVUR
145.	AIR WORLDWIDE INDIA PVT. LTD.	HYDERABAD
146.	AIRCOM INTERNATIONAL	GURGAON
147.	AIRTEL LTD.	GURGOAN
148.	AIRVANA NETWORKS INDIA PVT. LTD.	BANGALORE
149.	AIRWATCH TECHNOLOGIES PVT. LTD.	BANGALORE
150.	AIRWATCH TECHNOLOGIES PVT. LTD.	COIMBATORE
151.	AJMER VIDHUT VITRAN NIGAM LTD.	BHILWARA
152.	AKAMAI TECHNOLOGIES	BANGALORE
153.	AKC DATA SYSTEMS (INDIA) PVT.LTD.	NOIDA
154.	AKER SOLUTIONS	PUNE
155.	AKZONOBEL INDIA LTD.	NAVI MUMBAI
156.	AKZONOBEL INDIA LTD.	TRICHY
157.	AL AHALIA MEDICAL GROUP	ABU DHABI

158.	AL AHLIA INSURANCE CO SAOC	MUSCAT
159.	AL FARAA GEN. CONT. CO., UAE	CHENGALPATTU
160.	AL FUTTAIM CARILLION LLC	ABU DHABI
161.	AL GHURAIR IRON & STEEL LLC	ABU DHABI
162.	AL GHURAIR IRON & STEEL LLC	KHALIFA
163.	AL GHURAIR IRON & STEEL LLC	MUSSAFAH
164.	AL HAMRAH CONSTRUCTION.CO.LLC	JAZEERA
165.	AL HOSN GAS (ABU DHABI GAS DEVELOPMENT CO.)	MADURAI
166.	AL JABER ALUMINIUM EXTRUSION	ABU DHABI
167.	AL JABER LEGT ENGINEERING CONTRACTING CO	ABU DHABI
168.	AL KHALEEJ SUGAR	DUBAI
169.	AL MAHASIN ELECTRIAL CONT.CO	SHARJAH
170.	AL MAZROEI BOWYER BUILDING	DUBAI
171.	AL MOAYYED TRADING & CONTRACTING	MANAMA
172.	AL OTHMAN INDUSTRIAL MARKETING COMPANY	DHAHRAN
173.	AL RAJHI TAKAFUL	AL MALAZ
174.	AL RASHED FASTENERS	DAMMAM
175.	AL SABBAH ELECTRO MECHANICAL CONTRACTING	VIRUDHUNAGAR
176.	AL TAJIR GLASS INDUSTRIES	DUBAI
177.	ALBONAIR INDIA PVT. LTD.	CHENNAI
178.	ALCATEL LUCENT INDIA LTD.	BANGALORE
179.	ALCATEL LUCENT INDIA LTD.	CHENNAI
180.	ALCATEL LUCENT INDIA LTD.	GURGAON
181.	ALCATEL LUCENT INDIA LTD.	PUNE
182.	ALCATEL LUCENT INDIA LTD.	RAJAPALAYAM
183.	ALCHEMY SOLUTIONS	BANGALORE
184.	ALFA LAVAL	PUNE
185.	ALFANAR CO, (DAR ENGG)	DAMMAM
186.	ALFANAR ELECTRICAL SYSTEMS	KANATHUR
187.	ALFANAR ELECTRICAL SYSTEMS	RIYADH
188.	ALIGNMINDS TECHNOLOGIES LTD.	ERNAKULAM
189.	ALJABER ENERGY SERVICES LLC	ABU DAHBI
190.	ALLGO EMBEDDED SYSTEMS PVT. LTD.	BANGALORE
191.	ALLIANCE GLOBAL SERVICES IT INDIA P. LTD.	HYDERABAD
192.	ALLIANZ CORNHILL INFORMATION SERVICE	ERNAKULAM
193.	ALLIANZ MANAGED OPERATIONS & SERVICES	KOCHI
194.	ALLSCRIPTS (INDIA) PVT. LTD.	BANGALORE
195.	ALLSTATE SOLUTIONS PVT. LTD.	ANANTAPUR
196.	ALOK INDUSTRIES LTD.	NEW DELHI
197.	ALPHA HELIGEARS PVT. LTD.	BANGALORE
198.	ALSA ENGINEERING & CONSTRUCTION CONSTRUC	KOLLAM
199.	ALSTOM INDIA LTD.	BANGALORE
200.	ALSTOM INDIA LTD.	VADODARA
201.	ALSTOM MIDDLE EAST	DUBAI
202.	ALSTOM PROJECTS INDIA LTD.	CHENNAI
203.	ALSTOM PROJECTS INDIA LTD.	DURGAPUR
204.	ALSTOM PROJECTS INDIA LTD.	GHAZIABAD
205.	ALSTOM PROJECTS INDIA LTD.	HOSUR
206.	ALSTOM PROJECTS INDIA LTD.	KOLKATA
207.	ALSTOM PROJECTS INDIA LTD.	NOIDA
208.	ALTAIR ENGINEERING INDIA PVT. LTD.	BANGALORE
209.	ALTIMETRIK INDIA PVT. LTD.	CHENNAI
210.	ALTIMETRIK INDIA PVT. LTD.	THIRUVANNAMALAI
211.	ALTISOURCE BUSINESS SOLUTIONS PVT. LTD.	BANGALORE
212.	ALTRAN INDIA PVT. LTD.	BANGALORE

213.	ALUTECH FOUNDRY INDIA (P) LTD.	DHARMAPURI
214.	AMADEUS SOFTWARE LABS INDIA PVT. LTD.	BANGALORE
215.	AMARARAJA BATTERIES LTD.	TIRUPATI
216.	AMAX TECHNOLOGIES	RIYADH
217.	AMAZON DEVELOPMENT CENTRE INDIA PVT. LTD.	BANGALORE
218.	AMAZON DEVELOPMENT CENTRE INDIA PVT. LTD.	CHENGALPET
219.	AMAZON DEVELOPMENT CENTRE INDIA PVT. LTD.	CHENNAI
220.	AMAZON DEVELOPMENT CENTRE INDIA PVT. LTD.	HYDERABAD
221.	AMAZON DEVELOPMENT CENTRE INDIA PVT. LTD.	THANJAVUR
222.	AMAZON DEVELOPMENT CENTRE INDIA PVT. LTD.	VILLUPURAM
223.	AMBE ENGINEERS PVT. LTD.	FARIDABAD
224.	AMC SPECIAL SERIVCES	DOMBIVLI
225.	AMD INDIA PVT. LTD.	BANGALORE
226.	AMD INDIA PVT. LTD.	HYDERABAD
227.	AMDOCS DEVELOPMENT LTD.	PUNE
228.	AMDOCS DEVLOPMENT LTD.	GURGAON
229.	AMDOCS DEVLOPMENT LTD.	LIMASSOL
230.	AMDOCS DEVLOPMENT LTD.	MANGROL
231.	AMDOCS DEVLOPMENT LTD.	ROHTAK
232.	AMEC BLACKCAT LLC	DOHA
233.	AMEC BLACKCAT LLC	KANNUR
234.	AMEC INTERNATIONAL LTD.	ABU DHABI
235.	AMERICAN EXPRESS INDIA PVT. LTD.	BANGALORE
236.	AMERICAN EXPRESS INDIA PVT. LTD.	GURGAON
237.	AMERICAN MEGATRENDS INDIA PVT. LTD.	CHENNAI
238.	AMERICAN SOLUTIONS PVT. LTD.	VISAKHAPATNAM
239.	AMETEK INSTRUMENTS INDIA PVT. LTD.	BANGALORE
240.	AMITY UNIVERSITY	DUBAI
241.	AMITY UNIVERSITY	FARIDABAD
242.	AMPHENOL INTERCONNECT INDIA PVT. LTD.	KANCHIPURAM
243.	AMTEK INDIA LTD.	BHIWADI
244.	AMW MOTORS LTD.	HYDERABAD
245.	AMW-AACL	KRISHNA
246.	AMW-AACL	SATHUPALLY
247.	ANALOG DEVICES INC.	BANGALORE
248.	ANANTPRABHA SOFTWARE SOLUTIONS	PUNE
249.	ANGLER TECHNOLOGIES INDIA PVT. LTD.	COIMBATORE
250.	ANIRUDDHA TELEMETRY SYSTEMS	MUMBAI
251.	ANRAK ALUMINIUM LTD.	YANAM
252.	ANSALDO CALDAIE BOILERS INDIA PVT. LTD.	CHENNAI
253.	ANSALDO STS - UNION SWITCH & SIGNAL	CHENNAI
254.	ANSELL - SURETEX PROPHYLACTICS (INDIA) LTD.	BANGALORE
255.	ANSR CONSULTING INDIA PVT. LTD.	BANGALORE
256.	ANSYS FLUENT INDIA PVT. LTD.	PUNE
257.	AOL INDIA PVT. LTD.	BANGALORE
258.	AON HEWITT	CHENNAI
259.	AON HEWITT	DINDIGUL
260.	AON HEWITT	GURGAON
261.	AON HEWITT	NEW DELHI
262.	AON HEWITT	NOIDA
263.	AONE TECHNOLOGY PVT. LTD.	NEW DELHI
264.	APAR TECHNOLOGIES PTE LTD.	SINGAPORE
265.	APARA ENTERPRISE SOLUTIONS PVT. LTD.	BANGALORE
266.	APEX KNOWLEDGE TECHNOLOGY PVT. LTD.	HYDERABAD
267.	APNA INSTRUMENTATION SOLUTIONS	BANGALORE

268.	APNA INSTRUMENTATION SOLUTIONS PVT. LTD.	CHENNAI
269.	APOLLO DRDO HOSPITAL, HYDERABAD	HYDERABAD
270.	APOLLO HEALTH & LIFESTYLE LTD.	HYDERABAD
271.	APOLLO HOSPITALS ENTERPRISE LTD.	CHENNAI
272.	APOLLO TYRES LTD.	ALWAYE
273.	APOLLO TYRES LTD.	CHANNAI
274.	APOLLO TYRES LTD.	TINDIVANAM
275.	APOLLO TYRES LTD.	VADODARA
276.	APPLABS, A CSC COMPANY	SECUNDERABAD
277.	APPLECT LEARNING SYSTEMS PVT. LTD.	NEW DELHI
278.	APPLIED ELECTRO MAGNETICS PVT. LTD.	MEERUT
279.	APPLIED MATERIALS INDIA PVT. LTD.	BANGALORE
280.	APPLIED MATERIALS INDIA PVT. LTD.	CHENNAI
281.	APPLIED RESEARCH INTERNATIONAL (P) LTD.	NEW DELHI
282.	APPS ASSOCIATES	HYDERABAD
283.	APTECH LTD.	PUNE
284.	AQ MECH'L & ELECT'L MFG. INDIA PVT. LTD.	PUNE
285.	ARAB GULF VOLTECH SERVICES LLC	ABU DHABI
286.	ARAB SHIPBUILDING & REPAIR YARD	THRISSUR
287.	ARABI- ENERTECH KUWAIT	FAHEHEEL
288.	ARABIAN AIRCONDITIONING CONTRACTING	DOHA
289.	ARABIAN AUTOMOBILES CO LLC	MADURAI
290.	ARABIAN CONSTRUCTION COMPANY	ABU DHABI
291.	ARABIAN MEP CONTRACTING	DOHA
292.	ARABIAN POWER COMPANY	ABU DHABI
293.	ARABIAN TECHNICAL TRADING EST.	DAMMAM
294.	ARABTEC CONSTRUCTION LLC	TRICHIRAPALLI
295.	ARCELOR NEEL TAILORED BLANK LTD.	CHENNAI
296.	ARENDA INDIA PVT. LTD.	DELHI
297.	ARESS SOFTWARE & EDUCATION TECHNOLOGIES	NASIK
298.	AREVA T&D (ALSTOM GRID)	ERODE
299.	AREVA T&D (ALSTOM GRID)	KANCHIPURAM
300.	ARIBA TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
301.	ARICENT GROUP	ALLAHABAD
302.	ARICENT GROUP	BANGALORE
303.	ARICENT GROUP	CHARKHI DADRI
304.	ARICENT GROUP	CHENNAI
305.	ARICENT GROUP	FARIDABAD
306.	ARICENT GROUP	GURGAON
307.	ARICENT GROUP	MADURAI
308.	ARICENT GROUP	NAMAKKAL
309.	ARICENT GROUP	NEW DELHI
310.	ARICENT GROUP	NEYVELI
311.	ARICENT GROUP	PANIPAT
312.	ARICENT GROUP	ROHTAK
313.	ARICENT GROUP	SHAHJAHANPUR
314.	ARICENT GROUP	TRICHIRAPALLI
315.	ARICENT GROUP	TUMKUR
316.	ARIES MARINE ENGG.SERVICES.	SEVVEPET
317.	ARIES MARINE ENGINEERING SERVICES	ABU DHABI
318.	ARIF & BINTOAK CONSULTING ARCHITECTS	DUBAI
319.	ARINC INCORPORATED	DUBAI
320.	ARIS GLOBAL SOFTWARE PVT. LTD.	BANGALORE
321.	ARISTOCRAT TECHNOLOGIES INDIA PVT. LTD.	DELHI
322.	ARISTOCRAT TECHNOLOGIES INDIA PVT. LTD.	PATIALA



323.	ARKIPLAN CONSULTING ARCHITECTS & ENGINEE	DEIRA
324.	ARMED FORCES	DELHI
325.	ARMSEL MHE PVT. LTD.	BANGALORE
326.	ARMY	BATHINDA
327.	ARMY	PANAJI
328.	ARRIS GROUP INC	DHARMAPURI
329.	ARROW ELECTRONICS INDIA PVT. LTD.	BANGALORE
330.	ARS SOFTWARE ENGINEERING	THALASSERY
331.	ARS T&TT INDIA (PVT.LTD)	KOLLAM
332.	ARTECH INFOSYSTEMS PVT. LTD.	BANGALORE
333.	ARVIND ACCEL LTD.	VIJAYAWADA
334.	ARYAKA NETWORKS INDIA P. LTD.	BANGALORE
335.	ASAHI INDIA GLASS LTD. (AUTO GLASS)	DELHI
336.	ASHIRVAD PIPES PVT. LTD.	BANGALORE
337.	ASHLEY ALTEAMS INDIA LTD.	CHENNAI
338.	ASHLEY ALTEAMS INDIA LTD.	KANCHIPURAM
339.	ASHOK LEYLAND LTD.	BANGALORE
340.	ASHOK LEYLAND LTD.	CHENNAI
341.	ASHOK LEYLAND LTD.	COIMBATORE
342.	ASHOK LEYLAND LTD.	DHAMPUR
343.	ASHOK LEYLAND LTD.	HALDWANI
344.	ASHOK LEYLAND LTD.	HALDWANI
345.	ASHOK LEYLAND LTD.	HOSUR
346.	ASHOK LEYLAND LTD.	NOIDA
347.	ASHOK LEYLAND LTD.	PUNE
348.	ASHOK LEYLAND LTD.	RAJAPALAYAM
349.	ASHOK LEYLAND LTD.	SALEM
350.	ASHOK LEYLAND LTD.	TRICHY
351.	ASHOK LEYLAND LTD.	VELLORE
352.	ASHOKLEYLAND	HOSUR
353.	ASHTON TECHNOLOGIES LTD.	MUMBAI
354.	ASIA MOTOR WORKS LTD.	BHUJ
355.	ASIA MOTOR WORKS LTD.	KANAIYABE
356.	ASIA MOTOR WORKS LTD.	VILLUPURAM
357.	ASIAN PAINTS LTD.	CHENNAI
358.	ASIAN PAINTS LTD.	MUMBAI
359.	ASIAN PAINTS LTD.	PONDICHERRY
360.	ASIAN PAINTS LTD.	PUNE
361.	ASIANPAINTS LTD.	MUMBAI
362.	ASKINDIA TECHNOSYS PVT.LTD.	NAGPUR
363.	ASL DRDO MINISTRY OF DEFENCE	HYDERABAD
364.	ASM TECHNOLOGIES LTD.	BANGALORE
365.	ASPECT TECHNOLOGIES	BANGALORE
366.	ASPIRE SYSTEMS PVT. LTD.	CHENNAI
367.	ASPIRE SYSTEMS PVT. LTD.	MADURAI
368.	ASPIRE SYSTEMS PVT. LTD.	MANAVALAKURICHI
369.	ASPIRE SYSTEMS PVT. LTD.	SRIKALAHASTI
370.	ASSAM ENGINEEERING INSTITUTE	GUWAHATI
371.	ASSAM POWER DISTRIBUTION COMPANY LTD.	GUWAHATI
372.	ASSAM POWER DISTRIBUTION COMPANY LTD.	SILCHAR
373.	ASSAM POWER DISTRIBUTION COMPANY LTD.	TEZPUR
374.	AST ENGINEERING CONSULTANTS PVT. LTD.	VIJAYAWADA
375.	ATCS INC.	JAIPUR
376.	ATHENTA TECHNOLOGIES PVT. LTD.	NOIDA
377.	ATIBIR INDUSTRIES CO.LTD.	VIJAYAWADA

378.	ATLAS COPCO (INDIA) LTD.	CHENNAI
379.	ATLAS COPCO (INDIA) LTD.	NASHIK
380.	ATLAS COPCO (INDIA) LTD.	PUNE
381.	ATLAS COPCO SERVICES ME OMC	DUBAI
382.	ATMEL R&D INDIA PVT. LTD.	CHENNAI
383.	ATMEL R&D INDIA PVT. LTD.	MYSORE
384.	ATOS INDIA PVT. LTD.	AGRA
385.	ATOS INDIA PVT. LTD.	CHENNAI
386.	ATOS INDIA PVT. LTD.	KALYAN
387.	ATOS INDIA PVT. LTD.	KOLKATA
388.	ATOS ORIGIN INDIA PVT. LTD.	NASHIK
389.	AUDCO INDIA LTD.	THENI
390.	AUDCO INDIA LTD. (L&T)	CHENNAI
391.	AUTODESK INDIA PVT. LTD.	NELLORE
392.	AUTOLINE INDUSTRIES LTD.	MALEGAON
393.	AUTOLIV INDIA PVT. LTD.	BANGALORE
394.	AUTOLIV INDIA PVT. LTD.	CHITRADURGA
395.	AUTOLIV INDIA PVT.LTD.	DHARMAPURI
396.	AUTOMATIC DATA PROCESSING, INC.	PUNE
397.	AUTOMOTIVE DESIGN & ENGINEERING SOLUTION	HYDERABAD
398.	AUTOMOTIVE ROBOTICS INDIA PVT. LTD.	CHENNAI
399.	AUTOMOTIVE ROBOTICS INDIA PVT. LTD.	HYDERABAD
400.	AUTOMOTIVE ROBOTICS INDIA PVT. LTD.	PONNERI
401.	AUTOMOTIVE ROBOTICS INDIA PVT. LTD.	THANJAVUR
402.	AUTORISK MANAGEMENT SERVICES PVT. LTD.	JALANDHAR
403.	AVALON TECHNOLOGIES PVT. LTD.	CHENNAI
404.	AVASARALA TECHNOLOGIES LTD.	BANGALORE
405.	AVAYA INDIA PVT. LTD.	DEHRADUN
406.	AVAYA INDIA PVT. LTD.	PUNE
407.	AVERY DENNISON INDIA PVT. LTD.	BANGALORE
408.	AVEVA INFORMATION TECHNOLOGY	BANGALORE
409.	AVEVA SOFTWARE INDIA PVT. LTD.	HYDERABAD
410.	AVL INDIA PVT. LTD.	GURGAON
411.	AVTEC LTD.	HOSUR
412.	AVTEC LTD.	KRISHNAGIRI
413.	AVVAS INFOTECH	PUNE
414.	AWAL GULF AIR CONDITIONING & REFREG.	CHENNAI
415.	AWAL GULF MFG CO. B.S.C C	VILLUPURAM
416.	AWALGULF MANUFACTURING CO.BSC.	TRICHIRAPALLI
417.	AWARPUR CEMENT WORKS, ULTRATECH CEMENT L	CHANDRAPUR
418.	AXA TECHNOLOGY SERVICES	BANGALORE
419.	AXA TECHNOLOGY SERVICES	PATNA
420.	AXCEND AUTOMATION & SOFTWARE SOLUTION	BANGALORE
421.	AXIOM CONSULTING INDIA PVT. LTD.	DHARMAPURI
422.	AXIS AEROSPACE & TECHNOLOGIES PVT. LTD.	BANGALORE
423.	AXIS IT & T LTD.	HYDERABAD
424.	AXIS IT & T LTD.	THIRUVALLUR
425.	AYNARA TECHNOLOGY SOLUTIONS PVT. LTD.	CHENNAI
426.	AZUL SYSTEMS (INDIA) PVT. LTD.	BANGALORE
427.	AZUL SYSTEMS (INDIA) PVT. LTD.	RAISEN
428.	B FOURESS PVT. LTD.	BANGALORE
429.	B/E AEROSPACE PVT. LTD.	COIMBATORE
430.	B/E AEROSPACE PVT. LTD.	VISAKHAPATNAM
431.	BA CONTINUUM INDIA PVT. LTD.	CHENNAI
432.	BA CONTINUUM INDIA PVT. LTD.	PUDUKKOTTAI

433.	BA CONTINUUM INDIA PVT. LTD.	THANE
434.	BACARDI INDIA PVT. LTD.	MYSORE
435.	BACK OFFICE IT SOLUTIONS PVT. LTD.	JAIPUR
436.	BADER MULLA BROTHERS ENGINEERING GROUP	RAJAPALAYAM
437.	BAEHAL SOTWARE LTD.	BANGALORE
438.	BAHWAN CYBERTEK PVT. LTD.	CHENNAI
439.	BAHWAN CYBERTEK PVT. LTD.	TRICHY
440.	BAHWAN ENGINEERING CO.LLC	MUSCAT
441.	BAJAJ AUTO LTD.	BHAVNAGAR
442.	BAJAJ AUTO LTD.	PUNE
443.	BAKER HUGHES	DUBAI
444.	BAKER HUGHES	MUMBAI
445.	BALLY TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
446.	BALLY TECHNOLOGIES INDIA PVT. LTD.	CHENNAI
447.	BANCA SELLA S.P.A - CHENNAI BRANCH	CHENNAI
448.	BANK NOTE PRESS DEWAS	DEWAS
449.	BANK OF AMERICA	GURGAON
450.	BAPS PRAMUKH SWAMI HOSPITAL	SURAT
451.	BAPTIST CHRISTIAN HOSPITAL	TEZPUR
452.	BARALA HOSPITAL	JHUNJHUNU
453.	BARCLAYS TECHNOLOGY CENTER INDIA PVT.LTD.	PUNE
454.	BARCO ELECTRONIC SYSTEMS PVT. LTD.,NOIDA	NOIDA
455.	BARODA EQUIPMENT & VESSELS PVT.LTD	VADODARA
456.	BASE CONTROL TECH FZC	SHARJAH
457.	BASF INDIA LTD.	MANGALORE
458.	BAXTER BIOSCIENCES, SARL, SINGAPORE	KARUR
459.	BAXTER HEALTHCARE SA, SINGAPORE BRANCH	MARSILING
460.	BAXTER HEALTHCARE SA, SINGAPORE BRANCH	SINGAPORE
461.	BAYER CROP SCIENCE LTD.	THANE
462.	BCL FIRE SYSTEMS	CHENNAI
463.	BCS INFOSOFT INDIA PVT. LTD.	GURGAON
464.	BDS STEEL DETAILERS AUSTRALIA PTY. LTD.	CHENNAI
465.	BE AEROSPACE	HYDERABAD
466.	BEHR INDIA LTD.	PUNE
467.	BEHR PROCESS PAINTS (INDIA) PVT.LTD.	PUNE
468.	BELHASA PROJECTS LLC	TIRUNELVELI
469.	BEML LTD.	BANGALORE
470.	BEML LTD.	JAIPUR
471.	BEML LTD.	MYSORE
472.	BENCHMARK TECHNOLOGY	RIYADH
473.	BENGAL INSTITUTE OF TECHNOLOGY MGMT.	KOLKATA
474.	BENNETT COLEMAN & CO LTD.	PUNE
475.	BENTELER AUTOMOTIVE INDIA PVT. LTD.	PUNE
476.	BERGEN GROUP ROSENBERG AS	TRICHIRAPALLI
477.	BEROE CONSULTING INDIA PVT. LTD.	CHENNAI
478.	BETSOL SOFTWARE INDIA PVT. LTD.	BANGALORE
479.	BG EXPLORATION & PRODUCTION INDIA LTD.	HYDERABAD
480.	BG EXPLORATION & PRODUCTION INDIA LTD.	NAVI MUMBAI
481.	BG EXPLORATION & PRODUCTION INDIA LTD.	PERUMBAVOOR
482.	BG EXPLORATION & PRODUCTION INDIA LTD.	VADODARA
483.	BGR ENERGY SYSTEMS LTD.	CHENNAI
484.	BHARAT BUSINESS CHANNEL LTD.	GREATER NOIDA
485.	BHARAT EARTH MOVERS LTD.	CHENNAI
486.	BHARAT ELECTRONICS LTD.	BANGALORE
487.	BHARAT ELECTRONICS LTD.	CHENNAI

488.	BHARAT ELECTRONICS LTD.	DAVANAGERE
489.	BHARAT ELECTRONICS LTD.	GHAZIABAD
490.	BHARAT ELECTRONICS LTD.	HYDERABAD
491.	BHARAT FORGE LTD.	PUNE
492.	BHARAT FRITZ WERNER	BANGALORE
493.	BHARAT HEAVY ELECTRICALS LTD.	CHENNAI
494.	BHARAT HEAVY ELECTRICALS LTD.	TIRUCHIRAPPALLI
495.	BHARAT HEAVY ELECTRICALS LTD.	TRICHY
496.	BHARAT HEAVY ELECTRICALS LTD.	TRIVANDRUM
497.	BHARAT HEAVY ELECTRICALS LTD.	VELLORE
498.	BHARAT PETROLEUM CORPORATION LTD.	KARUR
499.	BHARAT PETROLEUM CORPORATION LTD.	MADURAI
500.	BHARAT SANCHAR NIGAM LTD.	FATEHABAD
501.	BHARAT SANCHAR NIGAM LTD.	RAIPUR
502.	BHARAT SANCHAR NIGAM LTD.	TRIVANDRUM
503.	BHARTI AIRTEL LTD.	GURGAON
504.	BHARTI AIRTEL LTD.	NEW DELHI
505.	BHARTI AIRTEL LTD.	NILAKKOTTAI
506.	BHATIA HOSPITAL	AMBARNATH
507.	BHAWAN ENGINEERING CO LLC	PUNE
508.	BHORUKA CHARITABLE TRSUT	JAIPUR
509.	BHUMITRA ENERGY AUDITING & CONSULTANCY	GUNTUR
510.	BHUSHAN STEEL LTD.	ANGUL
511.	BHUSHAN STEEL LTD.	BETUL
512.	BIECCO LAWRIE LTD.	KOLKATA
513.	BIESSE MANUFACTURING PVT. LTD.	BANGALORE
514.	BIGSTEM ANALYTICS PVT. LTD.	FARIDABAD
515.	BILT MIDDLE EAST LLC	TIRUNELVELI
516.	BIMAKING.COM	NEW DELHI
517.	BIN SALIM ENTERPRISES	MUSCAT
518.	BIN SAUD TECHNICAL TRADING EST.	ABU DHABI
519.	BINANI CEMENT LTD.	PINDWARA
520.	BINANI CEMENT LTD.	SIROHI
521.	BINANI ZINC LTD.	ERNAKULAM
522.	BINGHALIB ENGINEERING	SHARJAH
523.	BIOCON LTD.	BANGALORE
524.	BIRLA CELLULOSIC	BHARUCH
525.	BIRLASOFT	MADURANTAKAM
526.	BITS - PILANI DUBAI CAMPUS	DUBAI
527.	BITS - PILANI HYDERABAD CAMPUS	HYDERABAD
528.	BITS - PILANI PILANI CAMPUS	PILANI
529.	BITS PILANI K K BIRLA GOA CAMPUS	GOA
530.	BITWISE SOLUTIONS PVT. LTD.	VIRAR
531.	BIZZON INFO SOLUTIONS PVT. LTD.	ALAPPUZHA
532.	BLOOM ENERGY INDIA PVT. LTD.	BANGALORE
533.	BLUE STAR LTD.	AHMEDABAD
534.	BLUE STAR LTD.	BANGALORE
535.	BLUE STAR LTD.	CHENNAI
536.	BLUE STAR LTD.	DOMBIVLI
537.	BLUE STAR LTD.	GURGAON
538.	BLUE STAR LTD.	HYDERABAD
539.	BLUE STAR LTD.	RAJAPALAYAM
540.	BLUE WHALE ADVISORY SERVICES PVT. LTD.	GURGAON
541.	BLUEROSE TECHNOLOGIES	BANGALORE
542.	BMC SOFTWARE (I) PVT. LTD.	BANGALORE

543.	BMC SOFTWARE (I) PVT. LTD.	PUNE
544.	BMC SOFTWARE LTD.	PUNE
545.	BMW INDIA PVT. LTD.	CHENNAI
546.	BMW INDIA PVT. LTD.	HOSUR
547.	BMW INDIA PVT. LTD.	KANCHIPURAM
548.	BNP PARIBAS INDIA SOLUTIONS PVT. LTD.	CHENNAI
549.	BOLLHOFF FASTENINGS PVT. LTD.	CHENNAI
550.	BOLTELL INFOMEDIA PVT. LTD.	BANGALORE
551.	BOMBARDIER TRANSPORTATION INDIA LTD.	KANCHARAPARA
552.	BOMBARDIER TRANSPORTATION INDIA LTD.	VADODARA
553.	BOMBARDIER TRANSPORTATION INDIA LTD.	VALSAD
554.	BOMBAY HOSPITAL INDORE	INDORE
555.	BOMBAY HOSPITAL MUMBAI	MUMBAI
556.	BONFIGLIOLI TRANSMISSIONS PVT. LTD.	CHENNAI
557.	BORGWARNER MORSE TEC MURUGAPPA PVT. LTD.	TIRUVALLUR
558.	BORQS SOFTWARE SOLUTIONS PVT. LTD.	BANGALORE
559.	BOSCH CHASSIS SYSTEMS INDIA LTD.	PUNE
560.	BOSCH CHASSIS SYSTEMS INDIA LTD.	ROHA
561.	BOSCH LTD.	BANGALORE
562.	BOSCH LTD.	BANGALORE
563.	BOSCH LTD.	COIMBATORE
564.	BOSCH LTD.	GOA
565.	BOSCH LTD.	JAIPUR
566.	BOSCH LTD.	JAIPUR
567.	BOSCH LTD.	KRISHNAGIRI
568.	BOSCH LTD.	MARGAO
569.	BOSCH LTD.	NAGPUR
570.	BOSCH LTD.	NASHIK
571.	BOSCH LTD.	NASIK
572.	BOSCH LTD.	NASIK
573.	BOSCH REXROTH INDIA LTD.	AHMEDABAD
574.	BOSCOM SOFTWARE	HABRA
575.	BOUYGUES BATIMENT INTERNATIONAL	CHENNAI
576.	BPL TELECOM PVT. LTD.	PALAKKAD
577.	BRAHMOS AEROSPACE	HYDERABAD
578.	BRAHMOS AEROSPACE PVT. LTD.	HYDERABAD
579.	BRAKES INDIA LTD.	CHENNAI
580.	BRAKES INDIA LTD.	CHENNAI
581.	BRAKES INDIA LTD.	HYDERABAD
582.	BRAKES INDIA LTD.	TIRUPUR
583.	BRAVURA SOLUTIONS INDIA PVT. LTD.	NEW DELHI
584.	BREACH CANDY HOSPITAL TRUST	MUMBAI
585.	BREMBO BRAKE INDIA PVT.LTD	PUNE
586.	BRIDGESTONE INDIA PVT. LTD.	MUMBAI
587.	BRISTLECONE INDIA PVT. LTD.	BANGALORE
588.	BRIT,GOVT.OF INDIA	MUMBAI
589.	BRITANNIA INDUSTRIES LTD.	AMBATTUR
590.	BRITISH TELECOM INDIA PVT. LTD.	BANGALORE
591.	BROADCOM COMMUNICATIONS TECHNOLOGIES PVT LTD.	BANGALORE
592.	BROADCOM COMMUNICATIONS TECHNOLOGIES PVT LTD.	BANGALORE
593.	BROADCOM COMMUNICATIONS TECHNOLOGIES PVT LTD.	BANGALORE
594.	BROADCOM COMMUNICATIONS TECHNOLOGIES PVT LTD.	JANGAON
595.	BROADRIDGE FINANCIAL SOLUTIONS	HYDERABAD
596.	BROADRIDGE JAPAN LTD.	CHENNAI
597.	BROCADE COMMUNICATIONS LTD.	BANGALORE

598.	BROCADE COMMUNICATIONS LTD.	BANGALORE
599.	BROCADE COMMUNICATIONS LTD.	CHENNAI
600.	BSES YAMUNA POWER LTD.	GHAZIABAD
601.	BSG ITSOFT PVT. LTD.	MUMBAI
602.	BSNL	BANGALORE
603.	BSNL	BHUBANESWAR
604.	BSNL	CUTTACK
605.	BSNL	FATEHABAD
606.	BT (INDIA) PVT. LTD.	GURGAON
607.	BUHLER (INDIA) PVT. LTD.	BANGALORE
608.	BUHLER (INDIA) PVT. LTD.	HOSUR
609.	BUILDING CONTROL SOLUTION INDIA PVT. LTD.	BANGALORE
610.	BURCKHARDT COMPRESSION (INDIA) PVT. LTD.	PUNE
611.	BUREAU OF INDIAN STANDARDS	NEW DELHI
612.	BUREAU VERITAS	BAPATLA
613.	BUREAU VERITAS	DEIRA
614.	BUREAU VERITAS	WADIKABIR
615.	BURKERT CONTROMATIC PVT. LTD.	COIMBATORE
616.	BUSH ELECTRICALS & ENGINEERS	THANE
617.	BUTTERFLY GANDHIMATHI APPLIANCES LTD.	VELLORE
618.	BUTTERFLY THEMES DESIGN & BRANDING P LTD.	THANE
619.	BYMAA LABORATORIES PVT. LTD.	THENI
620.	C&C HOTELS VENTURE PVT. LTD.	NEW DELHI
621.	C&S ELECTRIC LTD.	DELHI
622.	C&S ELECTRIC LTD.	NOIDA
623.	CA (INDIA) TECHNOLOGIES PVT. LTD.	BANGALORE
624.	CA (INDIA) TECHNOLOGIES PVT. LTD.	NALGONDA
625.	CA TECHNOLOGIES PVT. LTD.	HYDERABAD
626.	CADD CENTRE TRAINING SERVICES	THIRUVALLA
627.	CADENCE DESIGN SYSTEMS INDIA PVT. LTD.	BANGALORE
628.	CADENCE DESIGN SYSTEMS INDIA PVT. LTD.	DELHI
629.	CADENCE DESIGN SYSTEMS INDIA PVT. LTD.	JAIPUR
630.	CADENCE DESIGN SYSTEMS INDIA PVT. LTD.	NOIDA
631.	CADILA HEALTHCARE LTD.	AHMEDABAD
632.	CADSYS (INDIA) LTD.	HYDERABAD
633.	CAIRN ENERGY INDIA PTY LTD.	NEW DELHI
634.	CAIRN ENERGY INDIA PTY LTD.	VADODARA
635.	CAIRN INDIA LTD.	CHENNAI
636.	CALIBER INTERCONNECT PVT. LTD.	COIMBATORE
637.	CALSOFT LABS INDIA PVT. LTD.	BANGALORE
638.	CALSOFT LABS INDIA PVT. LTD.	BANGALORE
639.	CALSOFT LABS INDIA PVT. LTD.	CHENNAI
640.	CALSOFT LABS INDIA PVT. LTD.	CHENNAI
641.	CALSOFT LABS INDIA PVT. LTD.	CHENNAI
642.	CALSOFT LABS INDIA PVT. LTD.	KOCHI
643.	CALTEK PTE LTD.	SINGAPORE
644.	CAMBRIDGE SOLUTION PVT. LTD.	BANGALORE
645.	CAMERON MANUFACTURING INDIA PVT. LTD.	COIMBATORE
646.	CAMP SYSTEMS PVT. LTD.	HYDERABAD
647.	CANARA HYDRAULICS PVT. LTD.	COIMBATORE
648.	CANDOUR SYSTEMS	ALIGARH
649.	CANVERA DIGITAL TECHNOLOGIES PVT. LTD.	BANGALORE
650.	CAP GEMINI CONSULTING LTD.	BANGALORE
651.	CAPARO CORPORATE SERVICES	GURGAON
652.	CAPARO ENG INDIA PVT. LTD.	CHENNAI

653.	CAPARO ENGINEERING INDIA LTD.	CHENNAI
654.	CAPE EAST LTD.	DOHA
655.	CAPGEMINI INDIA PVT. LTD.	BANGALORE
656.	CAPGEMINI INDIA PVT. LTD.	CHENNAI
657.	CAPGEMINI INDIA PVT. LTD.	CHIKMAGALORE
658.	CAPGEMINI INDIA PVT. LTD.	HOSUR
659.	CAPGEMINI INDIA PVT. LTD.	HYDERABAD
660.	CAPGEMINI INDIA PVT. LTD.	KANCHIPURAM
661.	CAPGEMINI INDIA PVT. LTD.	KARAD
662.	CAPGEMINI INDIA PVT. LTD.	MUMBAI
663.	CAPGEMINI INDIA PVT. LTD.	PUNE
664.	CAPGEMINI INDIA PVT. LTD.	THANE
665.	CAPILLARY TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
666.	CAPITAL ONE FINANCIAL CORPORATION	BANGALORE
667.	CAPTRONIC SYSTEMS PVT. LTD.	BANGALORE
668.	CARBONYX ENGINEERING (I) PVT. LTD.	PANAJI
669.	CARBORUNDUM UNIVERSAL LTD.	BANGALORE
670.	CARBORUNDUM UNIVERSAL LTD.	CHENNAI
671.	CARBORUNDUM UNIVERSAL LTD.	COCHIN
672.	CARBORUNDUM UNIVERSAL LTD.	ERNAKULAM
673.	CARE HOSPITALS,BANJARA HILLS	HYDERABAD
674.	CARGOTEC INDIA PVT. LTD.	NAVI MUMBAI
675.	CARGOTEC QATAR WLL	DOHA
676.	CARRARO TECHNOLOGIES INDIA PVT. LTD.	PUNE
677.	CARRIER AIRCONDITIONING & REFRIGERATION LTD.	THANE
678.	CASE NEW HOLLAND CONSTRUCTION EQUIPMENT	INDORE
679.	CASHEDGE INDIA PVT. LTD.	CHENNAI
680.	CATERPILLAR INDIA (P) LTD.	CHENNAI
681.	CATERPILLAR INDIA PVT. LTD.	ARNI
682.	CATERPILLAR INDIA PVT. LTD.	CHENNAI
683.	CATERPILLAR INDIA PVT. LTD.	COIMBATORE
684.	CATERPILLAR INDIA PVT. LTD.	HOSUR
685.	CATERPILLAR INDIA PVT. LTD.	HYDERABAD
686.	CATERPILLAR INDIA PVT. LTD.	THIRUVALLUR
687.	CATERPILLAR INDIA PVT. LTD.	VELLORE
688.	CAVIUM NETWORKS (INDIA) PVT. LTD.	BANGALORE
689.	CAVOTEC ENGG. SERVICES INDIA PVT. LTD.	PUNE
690.	CBI EASTERN ANSTALT	SALEM
691.	C-DAC	AMBALA CITY
692.	C-DAC	BANGALORE
693.	C-DAC	HYDERABAD
694.	C-DAC	NEW DELHI
695.	C-DAC	NOIDA
696.	C-DAC	PUNE
697.	C-DAC	YAMUNANAGAR
698.	CDG BOEING	CHENNAI
699.	CEGELEC PTE LTD.	ABU DHABI
700.	CEGELEC PTE LTD.	VADALUR
701.	CEGELEC PTE LTD.	VIRUDHUNAGAR
702.	CENTUM ELECTRONICS LTD.	BANGALORE
703.	CENTUM RAKON INDIA PVT. LTD.	BANGALORE
704.	CENTUM RAKON INDIA PVT. LTD.	BANGALORE
705.	CENTUM RAKON INDIA PVT. LTD.	MUMBAI
706.	CENTURION INSTITUTE OF TECHNOLOGY	BHUBANESWAR
707.	CENTURYLINK TECHNOLOGIES INDIA PVT. LTD.	BANGALORE

708.	CENTURYLINK TECHNOLOGIES INDIA PVT. LTD.	GHAZIABAD
709.	CERNER HEALTH CARE SOLUTIONS PVT. LTD.	BANGALORE
710.	CESC LTD.	KOLKATA
711.	CG POWER SYSTEMS SAUDI ARABIA LTD.	DAMMAM
712.	CGI INFORMATION SYSTEMS & MANGEMENT CO	BANGALORE
713.	CGI INFORMATION SYSTEMS & MANGEMENT CO	KADAPA
714.	CGI INFORMATION SYSTEMS & MANGEMENT CO	KOTTAYAM
715.	CGI INFORMATION SYSTEMS & MANGEMENT CO	MUMBAI
716.	CH2M HILL INDIA PVT. LTD.	DELHI
717.	CH2M HILL VECO ENGINEERING	ABU DHABI
718.	CH2M HILL VECO ENGINEERING	BANGALORE
719.	CHAIN-SYS (INDIA) PVT. LTD.	CHENNAI
720.	CHAIN-SYS (INDIA) PVT. LTD.	KANCHIPURAM
721.	CHAITANYA HI TECH ENGG COMPANY PVT. LTD.	BANGALORE
722.	CHAITANYA PRECI TECH PVT. LTD.	BANGALORE
723.	CHANGEPOND TECHNOLOGIES LTD.	CHENNAI
724.	CHANNEL MENTOR PVT. LTD.	BANGALORE
725.	CHARNOCK HOSPITAL PVT. LTD.	KOLKATA
726.	CHEMTROLS INDUSTRIES LTD.	PANAJI
727.	CHEMTROLS INDUSTRIES LTD.	THANE
728.	CHENKUTTAVAN ENGINEERING & CONSULTANCY SERVICES	THRISSUR
729.	CHETTINAD CEMENT CORPORATION LTD.	ARIYALUR
730.	CHETTINAD CEMENT CORPORATION LTD.	DINDIGUL
731.	CHETTINAD MORIMURA SEMICONDUCTOR MATERIA	CHENNAI
732.	CHETTINADU CEMENTS CORPORATION LTD.	KARUR
733.	CHILWORTH TECHNOLOGY P. LTD.	TRICHY
734.	CHIYODA ALMANA ENGINEERING LLC	DOHA
735.	CHRISTIAN MEDICAL ASSOCIATION OF INDIA	NEW DELHI
736.	CHRYSLER INDIA AUTOMOTIVE PVT. LTD.	CHENNAI
737.	CIENA INDIA PVT. LTD.	DELHI
738.	CIENA INDIA PVT. LTD.	GURGAON
739.	CIENA INDIA PVT. LTD.	LAKHIMPUR KHERI
740.	CIGNEX DATAMATICS LTD.	JAIPUR
741.	CIMAC FZCO	COIMBATORE
742.	CIPLA LTD.	AHMEDABAD
743.	CIRCOR FLOW TECHNOLOGIES INDIA P LTD.	NAMAKKAL
744.	CISCO SYSTEMS INDIA PVT. LTD.	BANGALORE
745.	CISCO SYSTEMS INDIA PVT. LTD.	CHENNAI
746.	CISCO SYSTEMS INDIA PVT. LTD.	LONAVALA
747.	CISCO SYSTEMS INDIA PVT. LTD.	MADURAI
748.	CISCO SYSTEMS INDIA PVT. LTD.	MYSORE
749.	CISCO SYSTEMS INDIA PVT. LTD.	NEW DELHI
750.	CISCO SYSTEMS INDIA PVT. LTD.	PONDICHERRY
751.	CISCO SYSTEMS INDIA PVT. LTD.	PUNE
752.	CISCO SYSTEMS INDIA PVT. LTD.	TIRUNELVELI
753.	CISCO SYSTEMS INDIA PVT. LTD.	VIRUDHUNAGAR
754.	CISCO VIDEO TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
755.	CISCO VIDEO TECHNOLOGIES INDIA PVT. LTD.	BELLANDUR
756.	CISCO VIDEO TECHNOLOGIES INDIA PVT. LTD.	KOLLEMCODE
757.	CITI CORP SERVICES INDIA LTD.	PUNE
758.	CITRIX R&D INDIA PVT. LTD.	BANGALORE
759.	CITRIX R&D INDIA PVT. LTD.	KOTTAYAM
760.	CIVIL-AID TECHNOCLINIC PVT. LTD.	BANGALORE
761.	CKR CONSULTING ENGINEERS	DUBAI
762.	CLAIRVOYANT INFOVISION PVT. LTD.	PUNE



763.	CLARICE TECHNOLOGIES	PUNE
764.	CLARKE SAMADHIN ASSOCIATES	DUBAI
765.	CLASSIC AUTO TUBES LTD.	PUNE
766.	CLASSIC DESIGN ENGINEERING SYSTEM PVT. LTD.	CHENNAI
767.	CLOUDBYTE INDIA TECHNOLOGIES PVT. LTD.	BANGALORE
768.	CLOVER INFOTECH	SHRIRAMPUR
769.	CMC LTD.	BANGALORE
770.	CMC LTD.	CHENNAI
771.	CMC LTD.	HYDERABAD
772.	CMC LTD.	SONEPAT
773.	CMC LTD.	SULLURUPETA
774.	CMC LTD.	TIRUMALAGIRI
775.	CMO AXIS	CHENNAI
776.	CMS INFOSYSTEM	NOIDA
777.	CNO IT SERVICES INDIA PVT. LTD.	HYDERABAD
778.	COASTAL GUJARAT POWER LTD.	MUNDRA
779.	COCOON HOSPITAL	JAIPUR
780.	CODENOMICON SOFTWARE INDIA PVT. LTD.	NEW DELHI
781.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ALAPPUZHA
782.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ALIBAG
783.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	AMRAVATI
784.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ANUPURAM
785.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ARIYALUR
786.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ARUVANKADU
787.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ASANSOL
788.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	AURANGABAD
789.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	AUSTIN
790.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	AVENEL
791.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	BAIDYABATI
792.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	BANGALORE
793.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	BENTONVILLE
794.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	BERHAMPORE
795.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	BHIWANI
796.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	BHOPAL
797.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	BIJAPUR
798.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	BOTHELL
799.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	CHARLOTTE
800.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	CHENNAI
801.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	CHITTORGARH
802.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	COCHIN
803.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	COIMBATORE
804.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	COMMACK
805.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	CUDDALORE
806.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	CUTTACK
807.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	DAVANGERE
808.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	DHARMAPURI
809.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	DINDIGUL
810.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	DOMBIVLI
811.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	DURGAPUR
812.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ERODE
813.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	GLENDALE
814.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	GREATER NOIDA
815.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	GURGAON
816.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	HALIFAX
817.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	HDYERABAD

818.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	HINJEWADI
819.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	HOSUR
820.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	HOWRAH
821.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	HYDERABAD
822.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	INDORE
823.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	JAMSHEDPUR
824.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KADAPA
825.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KANCHIPURAM
826.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KANNUR
827.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KANTABANJI
828.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KARAIKUDI
829.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KARUR
830.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KAYALPATNAM
831.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KOLHAPUR
832.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KOLKATA
833.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KOLLAM
834.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KRISHNAGIRI
835.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	KUMBakonam
836.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	LAKE HIAWATHA
837.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	LAUREL
838.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	LONDON
839.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MADURAI
840.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MANCHESTER
841.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MANGALORE
842.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MARGAO
843.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MARLBOROUGH
844.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MEDARAMETLA
845.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MERCHANTVILLE
846.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MORADABAD
847.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	MUMBAI
848.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	NAGERCOIL
849.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	NAGPUR
850.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	NAMAKKAL
851.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	NASHIK
852.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	NELLORE
853.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	NEW DELHI
854.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	NILAKOTTAI
855.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	PALAKKAD
856.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	PERAMBALUR
857.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	PLAINSBORO
858.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	PONDICHERRY
859.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	PUDUKKOTTAI
860.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	PUNE
861.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	QUINCY
862.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	RAEBARELI
863.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	RAIGANJ
864.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	RAMANATHAPURAM
865.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	RANDOLPH
866.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	REDMOND
867.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	RISHRA
868.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ROUND ROCK
869.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	SALEM
870.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	SANTA CLARA
871.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	SATANA
872.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	SHIRPUR

873.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	SINGAPORE
874.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	SIRUSERI
875.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	SIVAKASI
876.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	SOMERSET
877.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ST LOUIS
878.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THANE
879.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THANJAVUR
880.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THENI
881.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THIRUVALLA
882.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THIRUVALLUR
883.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THIRUVANANTHAPURAM
884.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THODUPUZHA
885.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THORAIPAKKAM
886.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	THRISSUR
887.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	TIRUCHIRAPPALLI
888.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	TIRUKOVILUR
889.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	TIRUNELVELI
890.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	TIRUPUR
891.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	TIRUVANNAMALAI
892.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	TORRANCE
893.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	TRICHY
894.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	TULJAPUR
895.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	UDAIPUR
896.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	UTRECHT
897.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	UTTARPARA
898.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	VASANTHAM NAGAR
899.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	VELLORE
900.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	VILLUPURAM
901.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	VIRUDHUNAGAR
902.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	VISAKHAPATNAM
903.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	WALTHAM
904.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	WARANGAL
905.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	WAUKEGAN
906.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	WAYANAD
907.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	WILMINGTON
908.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	WOODBURY
909.	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT. LTD.	ZURICH
910.	COLGATE GLOBAL BUSINESS SERVICES PVT. LTD.	MUMBAI
911.	COLLABERA SOLUTIONS PVT. LTD.	BANGALORE
912.	COLLABNET SOFTWARE PVT. LTD.	CHENNAI
913.	COLT TECHNOLOGY SERVICES	BANGALORE
914.	COMGUARD FZ LLC	MUMBAI
915.	COMMTEL NETWORKS PVT. LTD.	MUMBAI
916.	COMMVault SYSTEMS INDIA PVT. LTD.	CHENNAI
917.	COMMVault SYSTEMS INDIA PVT. LTD.	COIMBATORE
918.	COMPACT SOFTECH PVT. LTD.	AHMEDABAD
919.	COMPASSITES SOFTWARE SOLUTIONS PVT. LTD.	BANGALORE
920.	COMPUCOM SOFTWARES LTD.	JAIPUR
921.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	BANGALORE
922.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	CHENNAI
923.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	CUDDALORE
924.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	DINDIGUL
925.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	DUBAI
926.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	GHAZIABAD
927.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	HYDERABAD

928.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	LUCKNOW
929.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	MACHILIPATNAM
930.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	MUMBAI
931.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	NEW DELHI
932.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	NOIDA
933.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	SRIGANGANAGAR
934.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	TRICHY
935.	COMPUTER SCIENCE CORPORATIONS INDIA PVT. LTD.	VELLORE
936.	COMTECH ENGINEERS & CONSULTANTS P LTD.	AHMEDABAD
937.	COMVIVA TECHNOLOGIES LTD.	BANGALORE
938.	COMVIVA TECHNOLOGIES LTD.	TUMKUR
939.	CONSOLIDATED CONSTRUCTION CONSORTIUM LTD.	SALEM
940.	CONSOLIDATED CONTRACTORS COMPANY	SRIKALAHASTI
941.	CONSOLIDATED CONTRACTORS INT'L COMPANY	ABU DHABI
942.	CONSTRUCTION DEVELOPMENT COMPANY	CHENNAI
943.	CONSTRUCTION DEVELOPMENT COMPANY	DOHA
944.	CONTINENTAL AUTOMOTIVE COMPONENTS (INDIA) LTD.	BANGALORE
945.	CONTINENTAL AUTOMOTIVE COMPONENTS (INDIA) LTD.	HOSUR
946.	CONTINENTAL AUTOMOTIVE COMPONENTS (INDIA) LTD.	PUNE
947.	CONTINENTAL DATAGRAPHICS TECHNICAL SERVICES LTD.	CHENNAI
948.	CONTROL & APPLICATIONS EMIRATES	ABU DHABI
949.	CONTROL COMPONENT INDIA PVT. LTD.	CHENNAI
950.	CONVERTEAM EDC PVT. LTD.	CHENNAI
951.	COOKSON INDIA PVT. LTD.	CUDDALORE
952.	COOPER STANDARD AUTOMOTIVES	GHAZIABAD
953.	CORDYS SOFTWARE INDIA PVT. LTD.	HYDERABAD
954.	CORDYS UK LTD.	KANNUR
955.	COREN TECHNO-MECH PVT. LTD.	CHENNAI
956.	COROMANDEL INTERNATIONAL LTD.	ANKLESHWAR
957.	COROMANDEL INTERNATIONAL LTD.	CHENNAI
958.	COSMA INTERNATIONAL INDIA PVT. LTD.	CHENNAI
959.	COVALENSE TECHNOLOGIES PVT. LTD.	VISAKHAPATNAM
960.	COVANSYS A CSC COMPANY	CHENNAI
961.	COVANSYS INDIA PVT. LTD.	BANGALORE
962.	COVIDIEN ENGINEERING SERVICES PVT. LTD.	HYDERABAD
963.	COWI PVT. LTD.	DELHI
964.	CREATIVE NET SOLUTION	BARAUT
965.	CREATIVE SYNERGIES CONSULTING INDIA PVT. LTD.	VELLORE
966.	CREATIVE SYNERGIES GROUP	BANGALORE
967.	CREDENCE ANALYTICS PVT. LTD.	MUMBAI
968.	CREDENCE TECH-HUB	UDAIPUR
969.	CRESTECH SOFTWARE SYSTEMS PVT.LTD.	DELHI
970.	CRI PUMPS PVT. LTD.	COIMBATORE
971.	CROMPTON GREAVES LTD.	KOLKATA
972.	CROMPTON GREAVES LTD.	NASIK
973.	CRYOGEN INSTRUMENTS INDIA PVT. LTD.	THANE
974.	CRYSTAL CROP PROTECTION PVT. LTD.	GHAZIABAD
975.	CSC INDIA PVT. LTD.	ALLAHABAD
976.	CSC INDIA PVT. LTD.	BANGALORE
977.	CSC INDIA PVT. LTD.	CHENNAI
978.	CSC INDIA PVT. LTD.	COIMBATORE
979.	CSC INDIA PVT. LTD.	CUDDALORE
980.	CSC INDIA PVT. LTD.	DELHI
981.	CSC INDIA PVT. LTD.	GHAZIABAD
982.	CSC INDIA PVT. LTD.	GREATER NOIDA

983.	CSC INDIA PVT. LTD.	GURGAON
984.	CSC INDIA PVT. LTD.	HOSUR
985.	CSC INDIA PVT. LTD.	HYDERABAD
986.	CSC INDIA PVT. LTD.	NOIDA
987.	CSC INDIA PVT. LTD.	SALEM
988.	CSC INDIA PVT. LTD.	SECUNDERABAD
989.	CSC INDIA PVT. LTD.	VILLUPURAM
990.	CSR INDIA PVT. LTD.	BANGALORE
991.	CSS CORP PVT. LTD.	CHENNAI
992.	CTR MANUFACTURING INDUSTRIES LTD.	AURANGABAD
993.	CUBE INNOVATORS TECHNOLOGIES LLC	MUVATTUPUZHA
994.	CUMMINS INDIA LTD.	COIMBATORE
995.	CUMMINS INDIA LTD.	DAMAN
996.	CUMMINS INDIA LTD.	PUNE
997.	CUMMINS MIDDLE EAST	DUBAI
998.	CUMMINS MIDDLE EAST	JEBEL ALI
999.	CUMMINS TECHNOLOGIES INDIA LTD.	INDORE
1000.	CUMMINS TECHNOLOGIES INDIA LTD.	PUNE
1001.	CUSTOMER ANALYTICS INDIA PVT. LTD.	CHENNAI
1002.	CYBAGE SOFTWARE PVT. LTD.	HYDERABAD
1003.	CYBAGE SOFTWARE PVT. LTD.	PUNE
1004.	CYLINGAS COMPANY LLC	DUBAI
1005.	CYPRESS SEMICONDUCTOR TECHNOLOGY INDIA PVT. LTD.	BANGALORE
1006.	CYPRESS SEMICONDUCTOR TECHNOLOGY INDIA PVT. LTD.	TRICHUR
1007.	D.E. SHAW INDIA SOFTWARE PVT. LTD.	HYDERABAD
1008.	D.E. SHAW INDIA SOFTWARE PVT. LTD.	SHIMOGA
1009.	DAELIM INDUSTRIAL CO LTD.	KOLKATA
1010.	DAESUNG ELECTRIC INDIA PVT. LTD.	CHENNAI
1011.	DAIMLER INDIA COMMERCIAL VEHICLE PVT. LTD.	CHENNAI
1012.	DAIMLER INDIA COMMERCIAL VEHICLE PVT. LTD.	WALAJAPET
1013.	DAKSHIN SPEAKER MANUFACTURING PVT. LTD.	CHENNAI
1014.	DALMIA CEMENT (BHARAT) LTD.	CHENNAI
1015.	DALMIA CEMENT (BHARAT) LTD.	JAMMALAMADUGU
1016.	DALMIA CEMENT (BHARAT) LTD.	SALEM
1017.	DALMIA CEMENT (BHARAT) LTD.	SIRKALI
1018.	DAMCO SOLUTIONS PVT. LTD.	FARIDABAD
1019.	DANA INDIA PVT. LTD.	PUNE
1020.	DANA SPICER INDIA LTD.	PUNE
1021.	DANFOSS POWER SOLUTIONS INDIA PVT. LTD.	PUNE
1022.	DANIELI INDIA LTD.	KOLKATA
1023.	DANTAL HYDRAULICS PVT. LTD.	GURGAON
1024.	DANWAY EME LLC	DUBAI
1025.	DAR AL RIYADH	CHENNAI
1026.	DASSAULT SYSTEMES INDIA PVT. LTD.	BANGALORE
1027.	DATA101 SOLUTIONS PVT. LTD.	ONGOLE
1028.	DATAMATICS VISTA INFO SYSTEMS LTD.	CHENNAI
1029.	DATAPROCTOR PVT. LTD.	MUMBAI
1030.	DATTA MEGHE INSTITUTE OF MEDICAL SCIENCE	NAGPUR
1031.	DAVIS SOFTWARE SOLUTIONS PVT. LTD.	HYDERABAD
1032.	DAYALBAGH UNIVERSITY	AGRA
1033.	DB XENTO SYSTESMS PVT. LTD.	PUNE
1034.	DBQ TECHNOLOGIES PVT. LTD.	BANGALORE
1035.	DBXENTO SYSTEMS	NASHIK
1036.	DEEPTI ELECTRONICS & ELECTRO - OPTICS PV	BANGALORE
1037.	DEEYA ENERGY INDIA PVT. LTD.	GURGAON

1038.	DEFENCE LAND SYSTEM INDIA PVT. LTD.	FARIDABAD
1039.	DEFENCE MINISTRY	SECUNDERABAD
1040.	DEFENCE R&D ORGANISATION	DELHI
1041.	DEFENCE RESEARCH & DEVELOPMENT LABORATORY	HYDERABAD
1042.	DEFIANCE TECHNOLOGIES	CHENNAI
1043.	DEGREMONT LTD.	NEW DELHI
1044.	DELCAM SOFTWARE (INDIA) PVT. LTD.	PUNE
1045.	DELL FORCE10 NETWORKING	CHENNAI
1046.	DELL INC	TADIPATRI
1047.	DELL INDIA PVT. LTD.	BANGALORE
1048.	DELL INDIA PVT. LTD.	CHENNAI
1049.	DELL INDIA PVT. LTD.	CHICKBALLAPUR
1050.	DELL INDIA PVT. LTD.	KANCHIPURAM
1051.	DELL INDIA PVT. LTD.	MANDYA
1052.	DELL INDIA PVT. LTD.	NOIDA
1053.	DELL INDIA PVT. LTD.	TUMKUR
1054.	DELL INTERNATIONAL PVT. LTD.	BANGALORE
1055.	DELL SONICWALL INFO SECURITY PVT. LTD.	BANGALORE
1056.	DELLNER INDIA PVT. LTD.	CHENNAI
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1058.	DELOITTE CONSULTING INDIA PVT. LTD.	GWALIOR
1059.	DELOITTE CONSULTING INDIA PVT. LTD.	HYDERABAD
1060.	DELOITTE CONSULTING INDIA PVT. LTD.	NEW DELHI
1061.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	BANGALORE
1062.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	DELHI
1063.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	HYDERABAD
1064.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	ONGOLE
1065.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	REWARI
1066.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	SALEM
1067.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	TRIVANDRUM
1068.	DELPHI TVS DIESEL SYSTEMS LTD.	CHENNAI
1069.	DELPHI TVS DIESEL SYSTEMS LTD.	COIMBATORE
1070.	DELTA (DOHA) CORPORATION	DOHA
1071.	DELTA EMBEDDED SOLUTIONS PVT. LTD.	BARAMATI
1072.	DENSO HARYANA INDIA PVT. LTD.	MOHINDER GARH
1073.	DENSO INDIA LTD.	DELHI
1074.	DENSO INDIA LTD.	NANGLOI
1075.	DENSO KIRLOSKAR INDUSTRIES PVT. LTD.	BANGALORE
1076.	DEODITA TECHNOLOGIES	MUMBAI
1077.	DESICREW SOLUTIONS PVT. LTD.	CHENNAI
1078.	DET NORSKE VERITAS AS	THIRUVANNAMALAI
1079.	DEUTSCH INDIA POWER CONNECTORS PVT. LTD.	KANNUR
1080.	DEVELOPMENT CONSULTANTS PVT. LTD.	KOLKATA
1081.	DG INFOTECH CONSULTANCY LLC LTD.	PUNE
1082.	DHANLAXMI BANK	BANGALORE
1083.	DIAMLER FINANCIAL SERVICES INDIA PVT. LTD.	CHENNAI
1084.	DICKINSON FOWLER PVT.LTD	HOSUR
1085.	DIEBOLD INDIA PVT. LTD.	PONDA
1086.	DIEBOLD SOFTWARE SERVICES LTD.	HYDERABAD
1087.	DIFACTO ROBOTICS & AUTOMATION PVT. LTD.	VELLORE
1088.	DIGIMAKER INDIA PVT. LTD.	BANGALORE
1089.	DIGITAL DREAMS,CHENNAI	CUDDALORE
1090.	DIGITAL INSIGHT INDIA PRODUCTS PVT. LTD.	BANGALORE
1091.	DIMENSION DATA INDIA LTD.	BANGALORE
1092.	DIMENSIONS CONSULTANTS	MUMBAI

1093.	DINSHAWS DAIRY FOODS LTD.	NAGPUR
1094.	DIRECTOR OF HEALTH	HYDERABAD
1095.	DIVGIWARNER PVT. LTD.	PUNE
1096.	DMG MORISEIKI INDIA MACHINES & SERVICE	AHMEDABAD
1097.	DNATA (EMIRATES GROUP)	DUBAI
1098.	DNB MANAGEMENT APPLICATIONS	HOSUR
1099.	DODSAL E&C PTE. LTD.	BHUBANESWAR
1100.	DODSAL E&C PTE. LTD.	VILLUPURAM
1101.	DOLPHIN ENERGY LTD.	DOHA
1102.	DOOSAN CHENNAI WORKS PVT. LTD.	CHENNAI
1103.	DOOSAN INFRACORE	CHENNAI
1104.	DOOSAN POWER SYSTEMS INDIA PVT. LTD.	CHENNAI
1105.	DOVER INDIA PVT. LTD.	BANGALORE
1106.	DOVER INDIA PVT. LTD.	CHENNAI
1107.	DOVER INDIA PVT. LTD.	HYDERABAD
1108.	DOW CHEMICAL INTERNATIONAL PVT. LTD.	CHENNAI
1109.	DOW CHEMICAL INTERNATIONAL PVT. LTD.	SINGAPORE
1110.	DR. L H HIRANANDANI HOSPITAL	MUMBAI
1111.	DR. REDDY'S LABORATORIES LTD.	HYDERABAD
1112.	DRAKE & SCULL INTERNATIONAL LLC	KANYAKUMARI
1113.	DRESSER VALVE INDIA PVT. LTD.	COIMBATORE
1114.	DS MAX PROPERTIES (P) LTD.	BANGALORE
1115.	DST BLUEDOOR PTY LTD.	BANGALORE
1116.	DST WORLDWIDE SERVICES	WARANGAL
1117.	DUBAI AIRPORT FREEZONE	DUBAI
1118.	DUBAI ALUMINIUM COMPANY	DUBAI
1119.	DUBAI CABLE COMPANY	DUBAI
1120.	DUBAI ELECTRICITY & WATER AUTHORITY	JEBEL ALI
1121.	DUFIL PRIMA FOODS PLC	BHUBANESWAR
1122.	DURR INDIA PVT. LTD.,	CHENNAI
1123.	DUTCO MC CONNELL DOWELL	DUBAI
1124.	DUTCO MCCONNELL DOWELL QATAR L.L.C	TIRUCHIRAPPALLI
1125.	DYANSYS INDIA PVT. LTD.	CHENNAI
1126.	DYNACAST SINGAPORE PTE LTD.	JURONG WEST
1127.	DYNASPEDE INTEGRATED SYSTEMS P LTD.	BANGALORE
1128.	DYNATRADE AUTOMOTIVE LLC	SHARJAH
1129.	E.I.D.PARRY INDIA LTD.	CHENNAI
1130.	E.I.DUPONT INDIA PVT. LTD.	VADODARA
1131.	E2INFOSYSTEMS PVT. LTD.	VELLORE
1132.	EAGLEBURGMANN (MALAYSIA) SDN BHD	MADURAI
1133.	EASI ENGINEERING, ALLEGIS SERVICES	TRICHY
1134.	EASUN REYROLLE LTD.	COIMBATORE
1135.	EASYTALK COMMUNICATIONS PVT. LTD.	HANUMANGARH
1136.	EATON POWER QUALITY PVT. LTD.	MUMBAI
1137.	EATON TECHNOLOGIES PVT. LTD.	AHMEDNAGAR
1138.	EATON TECHNOLOGIES PVT. LTD.	KOPPAL
1139.	EATON TECHNOLOGIES PVT. LTD.	NEW DELHI
1140.	EATON TECHNOLOGIES PVT. LTD.	PUNE
1141.	EATON TECHNOLOGIES PVT. LTD.	TULJAPUR
1142.	EBAY PAYPAL INDIA PVT. LTD.	BANGALORE
1143.	EBIZNEEDS INTERNET SOLUTIONS PVT. LTD.	JAIPUR
1144.	EBORN CONSULTING PVT. LTD.	NALASOPARA
1145.	EC SOFTWARE INDIA	CHENNAI
1146.	ECI TELECOM INDIA PVT. LTD.	BANGALORE
1147.	ECI TELECOM INDIA PVT. LTD.	CHENNAI

1148.	ECI TELECOM INDIA PVT. LTD.	TOHANA
1149.	ECIL RAPISCAN LTD.	AHMEDABAD
1150.	ECLERX SERVICE LTD.	PUNE
1151.	ECLINICAL WORKS INDIA PVT. LTD.	JAIPUR
1152.	ECLINICAL WORKS INDIA PVT. LTD.	NAVI MUMBAI
1153.	ECOLAB FOOD SAFETY & HYGIENE SOLUTION PVT. LTD.	MANNARGUDI
1154.	ECOLOGIKOL ADVISORS INDIA PVT. LTD.	CHENNAI
1155.	ECON METALLIC INDIA PVT. LTD.	MOHALI
1156.	E-CONNECT SOLUTIONS PVT. LTD.	UDAIPUR
1157.	ECOTECH IT SOLUTIONS PVT. LTD.	MUMBAI
1158.	EDUTECH MIDDLE EAST LLC	DUBAI
1159.	E-EMPHASYS SYSTEMS LTD.	DOMBIVLI
1160.	EFFECTIVE TELESERVICES PVT. LTD.	AHMEDABAD
1161.	EGESTALT TECHNOLOGIES PVT. LTD.	BANGALORE
1162.	EICHER ENGINEERING COMPONENTS DEWAS	INDORE
1163.	EICHER TRACTORS	BHOPAL
1164.	EICHER TRACTORS (TMTL)	HINGOLI
1165.	EIMCO ELECON (I) LTD.	KARAMSAD
1166.	E-INFOCHIPS PVT. LTD.	AHMEDABAD
1167.	E-INFOCHIPS PVT. LTD.	HALVAD
1168.	E-INFOCHIPS PVT. LTD.	PUNE
1169.	E-INFOCHIPS PVT. LTD.	SOLAPUR
1170.	EIQNETWORKS LTD.	HYDERABAD
1171.	EISYSTEMS SERVICES	MATHURA
1172.	ELCOM INDIA PVT. LTD.	COIMBATORE
1173.	ELCOME INTERNATIONAL LLC	DUBAI
1174.	ELCOME INTERNATIONAL LLC	JABALALI
1175.	ELCOSOFT PVT. LTD.	GURGAON
1176.	ELECTRA CARD SERVICES PVT. LTD.	CHENNAI
1177.	ELECTRA CARD SERVICES PVT. LTD.	PUNE
1178.	ELECTRO INDUSTRIES	DUBAI
1179.	ELECTRO MECHANICAL SERVICES LLC	RUWI
1180.	ELECTRO PHOENIX CONSULTING LLP.	PUNE
1181.	ELECTROARC CONSULTING ENGINEERS	BANGALORE
1182.	ELECTRONIC ARTS GAMES INDIA PVT. LTD.	HYDERABAD
1183.	ELECTRONICS CORPORATION OF INDIA LTD.	HYDERABAD
1184.	ELECTRONICS CORPORATION OF INDIA LTD.	SECUNDERABAD
1185.	ELECTROPNEUMATICS & HYDRAULICS (I) PVT. LTD.	PUNE
1186.	ELECTROSTEEL CASTING LTD.	KOLKATA
1187.	ELECTROTHERM (I) LTD.	SURENDRANAGAR
1188.	ELEGENCE INFOTECH	BANGALORE
1189.	ELGI EQUIPMENTS LTD.	COIMBATORE
1190.	ELGI EQUIPMENTS LTD.	TUTICORIN
1191.	ELITE SCHOOL OF OPTOMETRY	CHENNAI
1192.	ELMECH ELECTROMECHANICAL WORKS LLC	ABU DHABI
1193.	ELSYTEC POWER PROJECTS PVT. LTD.	CHENNAI
1194.	ELTEL INDUSTRIES	KRISHNAGIRI
1195.	EMBITEL TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
1196.	EMC CORPORATION	BANGALORE
1197.	EMC CORPORATION	TIRUNELVELI
1198.	EMC DATA STORAGE INDIA PVT. LTD.	BANGALORE
1199.	EMC INDIA PVT. LTD.	BANGALORE
1200.	EMC SOFTWARE & SERVICES INDIA PVT. LTD.	BANGALORE
1201.	EMC SOFTWARE & SERVICES INDIA PVT. LTD.	FARIDABAD
1202.	EMC SOFTWARE SOLUTIONS INDIA PVT. LTD.	BANGALORE



1203.	EMCO LTD.	KOLKATA
1204.	EMDA ENGINEERING AS	TRICHY
1205.	EMERGYS SOFTWARE PVT. LTD.	CHENNAI
1206.	EMERGYS SOFTWARE PVT. LTD.	GUDUVANCHERRY
1207.	EMERSON DESIGN ENGINEERING CENTER	PUNE
1208.	EMERSON FZE	DUBAI
1209.	EMERSON PROCESS MANAGEMENT ASIA PACIFIC	SINGAPORE
1210.	EMIDS TECHNOLOGIES PVT. LTD.	BANGALORE
1211.	EMIRATES AIRLINES	DUBAI
1212.	EMIRATES ALUMINUM CO	ABU DHABI
1213.	EMIRATES ALUMINUM CO	AL Taweelah
1214.	EMIRATES ALUMINUM CO	CHENNAI
1215.	EMIRATES ALUMINUM CO	ERNAKULAM
1216.	EMIRATES ALUMINUM CO	SHARJAH
1217.	EMIRATES ALUMINUM CO	Taweela
1218.	EMIRATES ALUMINUM CO	VISAKHAPATNAM
1219.	EMIRATES FLOAT GLASS LLC	ABU DHABI
1220.	EMIRATES GAS LLC	FUJAIRAH
1221.	EMIRATES GROUP	DUBAI
1222.	EMIRATES STEEL	TIRUNELVELI
1223.	EMIRATES TECHNICAL ASSOCIATES	ABU DHABI
1224.	EMIRATES TRADING AGENCY	KADAYANALLUR
1225.	EMIRATES TRADING AGENCY	KOVILPATTI
1226.	EMIRATES TRADING AGENCY (ETA)	DUBAI
1227.	EMIRATES TRADING AGENCY LLC	DEIRA
1228.	EMISSION CONTROLS MANUFACTURERS ASSOCIAT	NEW DELHI
1229.	EMPIRE MACHINE TOOLS	CHENNAI
1230.	EMPOWER ENERGY SOLUTION	TIRUNELVELI
1231.	ENCO ENGINEERS COMBINE PVT. LTD.	HISAR
1232.	ENCORA TECHNOLOGIES PVT. LTD.	BANGALORE
1233.	ENDURANCE TECHNOLOGIES PVT. LTD.	AURANGABAD
1234.	ENDURANCE TECHNOLOGIES PVT. LTD.	HOSUR
1235.	ENDURANCE TECHNOLOGIES PVT. LTD.	KANCHIPURAM
1236.	ENERGOPROJEKT ENTEL LLC	KOVILPATTI
1237.	ENPEJAY RESEARCH INFORMATION SERVICES	VELLORE
1238.	ENTRIB TECHNOLOGIES PVT. LTD.	PUNE
1239.	ENVESTNET ASSET MANAGEMENT (INDIA) PVT. LTD.	TRIVANDRUM
1240.	EPCOS INDIA PVT. LTD.	REWARI
1241.	EPCOS INDIA PVT. LTD.	TIRUNELVELI
1242.	EPT ENGINEERING SERVICES (P) LTD.,	CHENNAI
1243.	EQ TECHNOLOGIC(INDIA) PVT. LTD.	PUNE
1244.	EQUATE PETROCHEMICAL COMPANY	ABUHALIFA
1245.	EQUATE PETROCHEMICAL COMPANY	FAHAHEEL
1246.	EQUATE PETROCHEMICAL COMPANY	KUWAIT
1247.	EQUATE PETROCHEMICAL COMPANY	SALMIYA
1248.	ERAM INTERNATIONAL QUALITY STANDARDISATI	ABU DHABI
1249.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	BANGALORE
1250.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	CHENNAI
1251.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	COIMBATORE
1252.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	DELHI
1253.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	ERNAKULAM
1254.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	FARIDABAD
1255.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	JAIPUR
1256.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	KOLKATA
1257.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	MAHADEVAPURA

1258.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	NOIDA
1259.	ERNST & YOUNG	KOLLAM
1260.	ERNST & YOUNG LLP	BANGALORE
1261.	ESAB MIDDLE EAST LLC	DUBAI
1262.	ESAB MIDDLE EAST LLC	THANJAVUR
1263.	ESCORTS LTD.	FARIDABAD
1264.	ESPIRE INFOLABS PVT. LTD.	GURGAON
1265.	ESPIRE INFOLABS PVT. LTD.	LUDHIANA
1266.	ESSAR OIL LTD.	JAMNAGAR
1267.	ESSAR POWER LTD.	SURAT
1268.	ESSAR PROJECTS INDIA LTD.	SURAT
1269.	ESSAR PROJECTS SINGAPORE PTE LTD.	HOSUR
1270.	ESSAR STEEL LTD.	CHENNAI
1271.	ESSAR STEELS LTD.	SURAT
1272.	ESSAYS2WIN LLC	HYDERABAD
1273.	ESSJAY ERICSSON INDIA PVT. LTD.	SRINAGAR
1274.	ESSQCON INSTRUMENTS	CHENNAI
1275.	ETA ASCON (M&E DIVISION)	MUMBAI
1276.	ETA ASCON GROUP OF COMPANIES	KADAYANALLUR
1277.	ETA M & E DIVISION,ETA ASCON	KADAYANALLUR
1278.	ETA-PCS SWITCHGEAR MANUFACTURING LLC	KAYALPATNAM
1279.	E-TEAM INFORMATICA INDIA (P) LTD.	THRISSUR
1280.	EUROFINS IT SOLUTIONS INDIA LTD.	BANGALORE
1281.	EURONET INDIA PVT. LTD.	PUNE
1282.	EUROTAS INFRASTRUCTURE LTD.	NASHIK
1283.	EUTHENICS IT SERVICES PVT. LTD.	VISAKHAPATNAM
1284.	EVALUE SERVE.COM PVT. LTD.	NEW DELHI
1285.	EVALUESERVE.COM PVT. LTD.	FARIDABAD
1286.	EVERSENDI ENGINEERING FZE	SHARJAH
1287.	EVERSENDI ENGINEERING LLC	DUBAI
1288.	EVOLUTION DEVELOPERS LTD.	DELHI
1289.	EWAC ALLOYS LTD.	MAHISHADAL
1290.	EXCELACOM TECHNOLOGIES PVT. LTD.	CHENNAI
1291.	EXCELLENCE INFONET	JUNAGADH
1292.	EXETER SOFTWARE INDIA PVT. LTD.	BANGALORE
1293.	EXIDE INDUSTRIES LTD.	CHITTORGARH
1294.	EXILANT TECHNOLOGIES PVT. LTD.	BANGALORE
1295.	EXILANT TECHNOLOGIES PVT. LTD.	MYSORE
1296.	EXINOSIS TECHNOLOGIES PVT. LTD.	BANGALORE
1297.	EXPEDIA INDIA	GURGAON
1298.	EXPERION TECHNOLOGIES	TRIVANDRUM
1299.	EXTERRO R&D	COIMBATORE
1300.	EXTERRO R&D	SALEM
1301.	EXXON MOBIL CHEMICALS OPERATIONS PVT. LTD.	SINGAPORE
1302.	EXXON MOBIL CHEMICALS OPERATIONS PVT. LTD.	THELLAR
1303.	EXXONMOBIL CHEMICALS PTE LTD.	SINGAPORE
1304.	EYME TECHNOLOGIES PVT. LTD.	TRIVANDRUM
1305.	FAIR ISAAC SOFTWARE INDIA LTD.	BANGALORE
1306.	FAISAL JASSIM TRADING CO. LLC	DOHA
1307.	FAIVELEY TRANSPORT INDIA LTD.	HOSUR
1308.	FANUC INDIA PVT. LTD.	BANGALORE
1309.	FAURECIA EMISSIONS CONTROL TECHNOLOGIES LTD.	TIRUNELVELI
1310.	FAURECIA INTERIOR SYSTEMS INDIA PVT. LTD.	PUNE
1311.	FCI TECHNOLOGY SERVICES	PALAKKAD
1312.	FEARNLEY PROCTER FZE	DUBAI

1313.	FEDERAL MOGUL BEARINGS INDIA LTD.	UNA
1314.	FEDERAL-MOGUL CORPORATION	CHENNAI
1315.	FEDERALMOGUL GOETZE INDIA LTD.	BANGALORE
1316.	FEEDBACK INFRASTRUCTURES PVT. LTD.	KOTA
1317.	FEROZE GANDHI INSTT. OF ENGG. & TECHNOLOGY	RAEBARELI
1318.	FESTO CONTROLS PVT. LTD.	BANGALORE
1319.	FFV SERVICES PVT. LTD.	NEW DELHI
1320.	FIAT INDIA AUTOMOBILES LTD.	PUNE
1321.	FIBERLINK SOFTWARE PVT. LTD.	BANGALORE
1322.	FIDELITY BUSINESS SERVICES INDIA PVT. LTD.	BANGALORE
1323.	FIDELITY INVESTMENTS	BANGALORE
1324.	FIDELITY NATIONAL INFORMATION SERVICES	DELHI
1325.	FINANCIAL SOFTWARE SYSTEMS PVT. LTD.	CHENNAI
1326.	FINANCIAL SOFTWARE SYSTEMS PVT. LTD.	COIMBATORE
1327.	FINEORE TECHNOLOGIES LTD.	GURGAON
1328.	FIRST ADVANTAGE OFFSHORE SERVICES PVT . LTD.	BANGALORE
1329.	FIS GLOBAL BUSINESS SOLUTIONS PVT. LI	CHENNAI
1330.	FISERV INDIA PVT. LTD.	NEW DELHI
1331.	FISERV INDIA PVT. LTD.	PUNE
1332.	FISHER SANMAR LTD.	CHENNAI
1333.	FL SMIDTH PVT. LTD.	CHENNAI
1334.	FLEXTRONICS TECHNOLOGIES INDIA PVT. LTD.	CHENNAI
1335.	FLEXTRONICS TECHNOLOGIES INDIA PVT. LTD.	KANCHIPURAM
1336.	FLIPKART INDIA PVT. LTD.	BANGALORE
1337.	FLIPKART INTERNET PVT.LTD.	DAUSA
1338.	FLIPKART LTD.	MEERUT
1339.	FLOVEL ENERGY PVT. LTD.	DELHI
1340.	FLOW SERVE INDIA CONTROLS PVT. LTD.	TRICHY
1341.	FLOWSERVE INDIA CONTROLS PVT. LTD.	COIMBATORE
1342.	FLOWSERVE INDIA CONTROLS PVT. LTD.	HOSUR
1343.	FLSMIDTH PVT. LTD.	CHENNAI
1344.	FLSMIDTH PVT. LTD.	COIMBATORE
1345.	FLSMIDTH PVT. LTD.	ELURU
1346.	FLSMIDTH PVT. LTD.	GURGAON
1347.	FLSMIDTH PVT. LTD.	KARUR
1348.	FLSMIDTH PVT. LTD.	MADURAI
1349.	FLSMIDTH PVT. LTD.	TRICHY
1350.	FLUOR DANIEL INDIA PVT. LTD.	NEW DELHI
1351.	FLUOR KUWAIT COMPANY	AHMADI
1352.	FLUTURA BUSINESS SOLUTIONS	BANGALORE
1353.	FOLEY DESIGNS PVT. LTD.	BANGALORE
1354.	FORBES MARSHALL PVT. LTD.	PUNE
1355.	FORCE MOTORS LTD.	INDORE
1356.	FORCE MOTORS LTD.	PUNE
1357.	FORCE10 NETWORKS INDIA (P) LTD.	CHENNAI
1358.	FORD INDIA PVT. LTD.	AHMEDABAD
1359.	FORD INDIA PVT. LTD.	CHENNAI
1360.	FORD INDIA PVT. LTD.	ERODE
1361.	FORD INDIA PVT. LTD.	NASHIK
1362.	FORD TECHNOLOGY SERVICES INDIA	CHENNAI
1363.	FORMATIVE SOFTWARE SOLUTIONS PVT. LTD.	CHENNAI
1364.	FORTIS HEALTHCARE LTD.	GURGAON
1365.	FORTIS HOSPITAL SHALIMAR BAGH	NEW DELHI
1366.	FORTUNEPAY SOLUTIONS PVT. LTD.	BANGALORE
1367.	FORWARD TECHNOLGY AGENCY PVT. LTD.	CHENNAI

1368.	FOSECO INDIA LTD.	PONDICHERRY
1369.	FREE SCALE SEMICONDUCTORS INDIA PVT. LTD.	DELHI
1370.	FREESCALE SEMICONDUCTORS INDIA PVT. LTD.	HYDERABAD
1371.	FREESCALE SEMICONDUCTORS INDIA PVT. LTD.	MALAPPURAM
1372.	FRESENIUS KABI INDIA PVT. LTD.	MAPUSA
1373.	FRONTIER LIFELINE PVT. LTD.	CHENNAI
1374.	FTD AUTOMATION PVT. LTD.	MYSORE
1375.	FTV PROCLAD LLC	BUR BUBAI
1376.	FUJAIRAH ASIA POWER COMPANY	QIDFA
1377.	FUJITSU CONSULTING INDIA	BANGALORE
1378.	FUJITSU CONSULTING INDIA	SALEM
1379.	FUJSENG CONSTRUCTION LLC.	FUJAIRAH
1380.	FUJSENG CONSTRUCTION LLC.	TRICHY
1381.	FUNDTECH INDIA LTD.	PUNE
1382.	FUNIZEN SOLUTIONS PVT. LTD.	CHENNAI
1383.	G.E. INDIA TECHNOLOGY CENTRE	BANGALORE
1384.	G.R.ENGINEERING WORKS	COIMBATORE
1385.	GABRIEL INDIA LTD.	CHENNAI
1386.	GABRIEL INDIA LTD.	ERODE
1387.	GABRIEL INDIA LTD.	HOSUR
1388.	GABRIEL INDIA LTD.	PARWANOO
1389.	GABRIEL INDIA LTD.	SALEM
1390.	GABRIEL INDIA LTD.	SOLAN
1391.	GACTEL TURNKEY PROJECTS LTD.	MUMBAI
1392.	GAMESA WIND TURBINES INDIA PVT.LTD	NAGERCOIL
1393.	GAMESA WIND TURBINES INDIA PVT.LTD	VADODARA
1394.	GAMMON INDIA LTD.	RAJAPALAYAM
1395.	GANDHI HOSPITAL	HYDERABAD
1396.	GAS TURBINE RESEARCH ESTABLISHMENT	BANGALORE
1397.	GATES ENGINEERING & SERVICES FZCO	DUBAI
1398.	GATES UNITTA INDIA COMPANY PVT. LTD.	CHENNAI
1399.	GATEWAY INFOTECH SYSTEMS PVT. LTD.	BANGALORE
1400.	GAVS INFORMATION SERVICES PVT. LTD.	CHENNAI
1401.	GE APPLIANCES & LIGHTING	BANGALORE
1402.	GE F&PT - DRESSER VALVE INDIA PVT. LTD.	COIMBATORE
1403.	GE HEALTHCARE	BANGALORE
1404.	GE INDIA EXPORTS PVT. LTD.	AMEENPUR
1405.	GE INDIA EXPORTS PVT. LTD.	HYDERABAD
1406.	GE INDIA EXPORTS PVT. LTD.	SECUNDERABAD
1407.	GE INDIA INDUSTRIAL PVT. LTD.	BANGALORE
1408.	GE INDIA INDUSTRIAL PVT. LTD.	GURGAON
1409.	GE INDIA TECHNOLOGY CENTRE	BANGALORE
1410.	GE INDUSTRIAL PVT. LTD.	GURGOAN
1411.	GE INTELLIGENT PLAT FORMS PVT. LTD.	PUNE
1412.	GE INTELLIGENT PLATFORMS PVT. LTD.	HYDERABAD
1413.	GE MEDICAL SYSTEMS PVT. LTD.	BANGALORE
1414.	GEA BGR ENERGY SYSTEM (I) LTD.	CHENNAI
1415.	GECO MECHANICAL & ELECTRICAL LTD.	SHARJAH
1416.	GEMINI SOFTWARE SOLUTIONS PVT. LTD.	MUMBAI
1417.	GENERAL ELECTRIC CO.	BANGALORE
1418.	GENERAL ELECTRIC CO.	HYDERABAD
1419.	GENERAL ELECTRIC INTERNATIONAL INC.	PUNE
1420.	GENERAL INSTRUMENT CORPORATION INDIA PVT LTD.	BANGALORE
1421.	GENERAL MOTORS INDIA PVT. LTD.	AURANGABAD
1422.	GENERAL MOTORS INDIA PVT. LTD.	BANGALORE

1423.	GENERAL MOTORS INDIA PVT. LTD.	HOSUR
1424.	GENERAL MOTORS INDIA PVT. LTD.	PUNE
1425.	GENERAL MOTORS INDIA PVT. LTD.	VADODARA
1426.	GENERAL MOTORS TECHNICAL CENTER INDIA PVT LTD.	BANGALORE
1427.	GENOME LIFE SCIENCES PVT. LTD.	CHENNAI
1428.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	BANGALORE
1429.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	DELHI
1430.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	GHAZIABAD
1431.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	GURGAON
1432.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	HYDERABAD
1433.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	MORADABAD
1434.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	NOIDA
1435.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	SAHARANPUR
1436.	GENPACT HEADSTRONG CAPITAL MARKETS LTD.	VISAKHAPATNAM
1437.	GEODESIC LTD.	COCHIN
1438.	GEOMETRIC LTD.	HOSUR
1439.	GEOMETRIC LTD.	JAYSINGPUR
1440.	GEOMETRIC LTD.	PUNE
1441.	GEOMETRIC LTD.	REWARI
1442.	GERMAN GULF ENTERPRISES	SHARJAH
1443.	GERMANISCHER LLOYD INDUSTRIAL SERVICES INDIA PVT.LTD.	TRICHY
1444.	GESTAMP SUNGWOO STAMPING & ASSY PVT. LTD.	CHENNAI
1445.	GGG INFORMATION SERVICES	CHENNAI
1446.	GHANTOOT GENERAL MECHANICAL ENGINEERING	PARAMAKUDI
1447.	GHANTOOT ROAD CONTRACTING	DUBAI
1448.	GILLETTE INDIA LTD.	BHIWADI
1449.	GIRNAR SOFTWARES PVT. LTD.	JAIPUR
1450.	GLOBAL ANALYTICS INDIA PVT. LTD.	CHENNAI
1451.	GLOBAL EDGE SOFTWARE LTD.	BANGALORE
1452.	GLOBAL EDGE SOFTWARE LTD.	COIMBATORE
1453.	GLOBAL FOUNDRIES PTE LTD.	CHENNAI
1454.	GLOBAL FOUNDRIES SINGAPORE PTE LTD.	CHENNAI
1455.	GLOBAL INFOTECH & ENGINEERING ASSOCIATE	SERAMPORE
1456.	GLOBAL LOGIC INDIA PVT. LTD.	BANGALORE
1457.	GLOBAL LOGIC INDIA PVT. LTD.	NOIDA
1458.	GLOBAL LOGIC INDIA PVT. LTD.	SANGRUR
1459.	GLOBAL LOGIC TECHNOLOGIES PVT. LTD.	SECUNDERABAD
1460.	GLOBAL PROCESS SYSTEMS	DUBAI
1461.	GLOBAL PROCESS SYSTEMS	MEDIA CITY
1462.	GLOBAL SOURCING GROUP	PUNE
1463.	GLOBAL STEP SERVICES PVT. LTD.	PUNE
1464.	GLOBAL TALENT TRACK	CHENNAI
1465.	GLOBALLOGIC INC.	NOIDA
1466.	GMMCO LTD.	CHENNAI
1467.	GMMCO LTD.	HOSUR
1468.	GNAT TECHNOLOGIES PVT. LTD.	BANGALORE
1469.	GNSA INFOTECH LTD.	NAMAKKAL
1470.	GNTS TECHNOLOGIES PVT. LTD.	THANJAVUR
1471.	GOA SHIPYARD LTD.	PANJIM
1472.	GOA SHIPYARD LTD.	VASCO-DA-GAMA
1473.	GODAVARI TECHNICAL SERVICES	NASHIK
1474.	GODREJ & BOYCE MFG CO LTD.	CALICUT
1475.	GODREJ & BOYCE MFG. CO. LTD.	AMBERNATH
1476.	GODREJ & BOYCE MFG. CO. LTD.	BHUBANESWAR

1477.	GODREJ & BOYCE MFG. CO. LTD.	CHENNAI
1478.	GODREJ & BOYCE MFG. CO. LTD.	COCHIN
1479.	GODREJ & BOYCE MFG. CO. LTD.	DOMBIVLI
1480.	GODREJ & BOYCE MFG. CO. LTD.	ERNAKULAM
1481.	GODREJ & BOYCE MFG. CO. LTD.	INDORE
1482.	GODREJ & BOYCE MFG. CO. LTD.	KALYAN
1483.	GODREJ & BOYCE MFG. CO. LTD.	LUCKNOW
1484.	GODREJ & BOYCE MFG. CO. LTD.	MOHALI
1485.	GODREJ & BOYCE MFG. CO. LTD.	MUMBAI
1486.	GODREJ & BOYCE MFG. CO. LTD.	NEW DELHI
1487.	GODREJ & BOYCE MFG. CO. LTD.	PUNE
1488.	GODREJ & BOYCE MFG. CO. LTD.	THANE
1489.	GOKUL SUPERSPECIALITY HOSPITAL	RAJKOT
1490.	GOLDLINE (FZE) GH. LTD.	TEMA
1491.	GOLDMAN SACHS SERVICES PVT. LTD.	BANGALORE
1492.	GOLDMAN SACHS SERVICES PVT. LTD.	CHENNAI
1493.	GOLDSTONE INFRATECH LTD.	SECUNDERABAD
1494.	GOODRICH AEROSPACE SERVICE PVT. LTD.	BANGALORE
1495.	GOODYEAR INDIA LTD.	CHENNAI
1496.	GOOGLE INDIA PVT. LTD.	HYDERABAD
1497.	GOVT ZIRTIRI RESIDENTIAL SCIENCE COLLEGE	AIZAWL
1498.	GPC-GLOBAL INFORMATION SOLUTIONS	ABU DHABI
1499.	GRAPHIC ERA UNIVERSITY DEHRADUN	DEHRADUN
1500.	GRASIM IND. LTD.	NAGDA
1501.	GREAVES COTTON LTD.	AURANGABAD
1502.	GREEN INDIA BUILDING SYSTEM & SERVICES PVT.LTD.	THANE
1503.	GREEN LINE SOLAR PVT. LTD.	PONDICHERRY
1504.	GREEN QUOTIENT SYSTEMS PVT. LTD.	CHENNAI
1505.	GREEN RIDGE SYSTEMS PVT. LTD.	THANE
1506.	GREENHECK FAN INDIA PVT. LTD.	KOLKATA
1507.	GREENRIDGE SYSTEMS PVT. LTD.	KALYAN
1508.	GRINDWELL NORTON LTD.	NAGPUR
1509.	GRINDWELL NORTON LTD. -SAINT GOBAIN A	NOIDA
1510.	GROZ ENGG TOOLS PVT. LTD.	NEW DELHI
1511.	GROZ ENGINEERING TOOLS (P) LTD.	GURGAON
1512.	GRUNER INDIA PVT.LTD	CHORGALIA
1513.	GSOFT SOFTWARE SOLUTION	DINDIGUL
1514.	GSPC GAS CO LTD.	GONDAL
1515.	GUAVUS NETWORK SYSTEMS	GHAZIABAD
1516.	GUJARAT BOROSIL LTD.	BHARUCH DISTRICT
1517.	GUJARAT STATE ELECTRICITY CORPORATION	UKAI
1518.	GUJARAT STATE PETROLEUM CORPORATION	RAJAMUNDRY
1519.	GULF VALVE FZE	SHARJAH
1520.	GUNNEBO INDIA PVT. LTD.	VADODARA
1521.	H5 ASIA PACIFIC PVT. LTD.	BANGALORE
1522.	HACK O TECH SERVICES	SIWANI MANDI
1523.	HAL AVIONICS DIVISION KORWA	SULTANPUR
1524.	HALDIA ENERGY LTD.	BANDEL
1525.	HALLIBURTON WORLD WIDE LTD.	DUBAI
1526.	HALLIBURTON WORLD WIDE LTD.	PUNE
1527.	HANYANG AUTOMOTIVE INDIA P LTD.	CHENNAI
1528.	HAPPIEST MINDS TECHNOLOGIES	BANGALORE
1529.	HARISVANIKK LEDERS PVT. LTD.	CHENNAI
1530.	HARITA FEHRER LTD.	HOSUR
1531.	HARITA SEATING SYSTEMS LTD.	COIMBATORE

1532.	HARITA SEATING SYSTEMS LTD.	HOSUR
1533.	HARITA SEATING SYSTEMS LTD.	MADURAI
1534.	HARITA SEATING SYSTEMS LTD.	TIRUPUR
1535.	HARITA SEATING SYSTEMS LTD.	VELLORE
1536.	HARITA TECHSERVE LTD.	VELLORE
1537.	HARITASEATING SEATING SYSTEM LTD.	HOSUR
1538.	HARLAND CLARKE HOLDING SOFTWARE INDIA PVT LTD.	CHENNAI
1539.	HARMAN INTERNATIONALS INDIA PVT. LTD.	BANGALORE
1540.	HARMAN INTERNATIONALS INDIA PVT. LTD.	MYSORE
1541.	HARMAN INTERNATIONALS INDIA PVT. LTD.	PUNE
1542.	HARNESS HANDI TOUCH PVT. LTD.	TIRUPUR
1543.	HAVELLS INDIA LTD.	SONIPAT
1544.	HAWKINS COOKERS LTD.	THANE
1545.	HAYS BUSINESS SOLUTIONS INDIA PVT.LTD.	DELHI
1546.	HBL POWER SYSTEMS LTD.	SECUNDERABAD
1547.	HCENTIVE TECHNOLOGIES INDIA PVT. LTD.	FIROZEPUR
1548.	HCENTIVE TECHNOLOGIES INDIA PVT. LTD.	NOIDA
1549.	HCL TECHNOLOGIES LTD.	AMBALA
1550.	HCL TECHNOLOGIES LTD.	AURAIYA
1551.	HCL TECHNOLOGIES LTD.	BANGALORE
1552.	HCL TECHNOLOGIES LTD.	BETUL
1553.	HCL TECHNOLOGIES LTD.	BHADRAVATHI
1554.	HCL TECHNOLOGIES LTD.	CHENNAI
1555.	HCL TECHNOLOGIES LTD.	CHITTORGARH
1556.	HCL TECHNOLOGIES LTD.	COIMBATORE
1557.	HCL TECHNOLOGIES LTD.	CUDDALORE
1558.	HCL TECHNOLOGIES LTD.	DAVANGERE
1559.	HCL TECHNOLOGIES LTD.	DINDIGUL
1560.	HCL TECHNOLOGIES LTD.	ERODE
1561.	HCL TECHNOLOGIES LTD.	GAJAPATHINAGARAM
1562.	HCL TECHNOLOGIES LTD.	GAUHATI
1563.	HCL TECHNOLOGIES LTD.	GHAZIABAD
1564.	HCL TECHNOLOGIES LTD.	GOVINDPURI
1565.	HCL TECHNOLOGIES LTD.	GUNTUR
1566.	HCL TECHNOLOGIES LTD.	GURGAON
1567.	HCL TECHNOLOGIES LTD.	HOSUR
1568.	HCL TECHNOLOGIES LTD.	HYDERABAD
1569.	HCL TECHNOLOGIES LTD.	JAMMU
1570.	HCL TECHNOLOGIES LTD.	KANCHIPURAM
1571.	HCL TECHNOLOGIES LTD.	KANYAKUMARI
1572.	HCL TECHNOLOGIES LTD.	KASARAGOD
1573.	HCL TECHNOLOGIES LTD.	KOLHAPUR
1574.	HCL TECHNOLOGIES LTD.	KOLLAM
1575.	HCL TECHNOLOGIES LTD.	KOZHIKODE
1576.	HCL TECHNOLOGIES LTD.	LUCKNOW
1577.	HCL TECHNOLOGIES LTD.	MADHAPUR
1578.	HCL TECHNOLOGIES LTD.	MADURAI
1579.	HCL TECHNOLOGIES LTD.	MUMBAI
1580.	HCL TECHNOLOGIES LTD.	NEW DELHI
1581.	HCL TECHNOLOGIES LTD.	NOIDA
1582.	HCL TECHNOLOGIES LTD.	PANCHKULA
1583.	HCL TECHNOLOGIES LTD.	PONDICHERRY
1584.	HCL TECHNOLOGIES LTD.	SERAMPORE
1585.	HCL TECHNOLOGIES LTD.	TADIPATRI
1586.	HCL TECHNOLOGIES LTD.	TENKASI

1587.	HCL TECHNOLOGIES LTD.	THANJAVUR
1588.	HCL TECHNOLOGIES LTD.	THENI
1589.	HCL TECHNOLOGIES LTD.	THOOTHUKUDI
1590.	HCL TECHNOLOGIES LTD.	TIRUNELVELI
1591.	HCL TECHNOLOGIES LTD.	TIRUVANNAMALAI
1592.	HCL TECHNOLOGIES LTD.	TRICHY
1593.	HCL TECHNOLOGIES LTD.	TUMKUR
1594.	HCL TECHNOLOGIES LTD.	VIJAYAWADA
1595.	HCL TECHNOLOGIES LTD.	VILLUPURAM
1596.	HEAD STRONG SERVICES INDIA PVT. LTD.	DELHI
1597.	HEADSTRONG SERVICES INDIA PVT. LTD.	HALDWANI
1598.	HEADSTRONG SERVICES INDIA PVT. LTD.	JAIPUR
1599.	HEADSTRONG SERVICES INDIA PVT. LTD.	NOIDA
1600.	HEALTHASYST PVT. LTD.	MYSORE
1601.	HEART & GENERAL HOSPITAL	JAIPUR
1602.	HEAT EXCHANGES SPECIALISTS (S) PTE LTD.	MAMALLAPURAM
1603.	HEAVY ENGINEERING IND. & SHIP BUILDING CO	SHUWAIKH
1604.	HEAVY WATER BOARD	ASWAPURAM
1605.	HEDRICH VACUUM SYSTEMS (I) PVT. LTD.	KOLKATA
1606.	HEIDELBERG CEMENT INDIA LTD.	NARSINGARH
1607.	HELLA INDIA AUTOMOTIVE PVT. LTD.	BULDHANA
1608.	HELLA INDIA AUTOMOTIVE PVT. LTD.	CHENNAI
1609.	HELLA INDIA AUTOMOTIVE PVT. LTD.	DHARWAD
1610.	HELLA INDIA AUTOMOTIVE PVT. LTD.	GURGAON
1611.	HELLA INDIA AUTOMOTIVE PVT. LTD.	JALANDHAR
1612.	HELLA INDIA AUTOMOTIVE PVT. LTD.	KARAD
1613.	HELLA INDIA AUTOMOTIVE PVT. LTD.	PUNE
1614.	HELLA INDIA AUTOMOTIVE PVT. LTD.	SHAMLI
1615.	HELLA INDIA AUTOMOTIVE PVT. LTD.	YAVATMAL
1616.	HENKEL CAC PVT. LTD.	DOMBIVLI
1617.	HEPATIC TECHNOLOGIES PVT. LTD.	ANANTAPUR
1618.	HEPATIC TECHNOLOGIES PVT. LTD.	BANGALORE
1619.	HERBALIFE INTERNATIONAL INDIA PVT. LTD.	BANGALORE
1620.	HERBALIFE INTERNATIONAL INDIA PVT. LTD.	KASARAGOD
1621.	HERBERTPUR CHRISTIAN HOSPITAL	DEHRADUN
1622.	HERE SOLUTIONS INDIA PVT. LTD.	MUMBAI
1623.	HERO GLOBAL DESIGN LTD.	GHAZIABAD
1624.	HERO MOTOCORP LTD.	CUDDALORE
1625.	HERO MOTOCORP LTD.	GURGAON
1626.	HERO MOTOCORP LTD.	HARIDWAR
1627.	HERRENKNECHT INDIA PVT. LTD.	RAMANATHAPURAM
1628.	HEWITT ASSOCIATES INDIA PVT. LTD.	CHENNAI
1629.	HEWITT ASSOCIATES INDIA PVT. LTD.	NOIDA
1630.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	BANGALORE
1631.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	CHENNAI
1632.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	COIMBATORE
1633.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	ERODE
1634.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	MADURAI
1635.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	MUMBAI
1636.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	THANE
1637.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	TIRUNELVELI
1638.	HEWLETT PACKARD GLOBAL SOFT PVT. LTD.	VASCO-DA-GAMA
1639.	HEXAWARE TECHNOLOGIES LTD.	CHENNAI
1640.	HEXAWARE TECHNOLOGIES LTD.	COIMBATORE
1641.	HEXAWARE TECHNOLOGIES LTD.	KAIKONDANAHALLI



1642.	HEXAWARE TECHNOLOGIES LTD.	KRISHNAGIRI
1643.	HEXAWARE TECHNOLOGIES LTD.	MUMBAI
1644.	HEXAWARE TECHNOLOGIES LTD.	NAVI MUMBAI
1645.	HEXAWARE TECHNOLOGIES LTD.	PERAMBALUR
1646.	HEXAWARE TECHNOLOGIES LTD.	TRICHY
1647.	HFN IT SOLUTION	BANGALORE
1648.	HIGGS & HILL LLC	DUBAI
1649.	HIGHTEMP FURNACES LTD.	BANGALORE
1650.	HINDALCO INDUSTRIES LTD.	BHARUCH
1651.	HINDALCO INDUSTRIES LTD.	DAHEJ
1652.	HINDALCO INDUSTRIES LTD.	NAVI MUMBAI
1653.	HINDALCO INDUSTRIES LTD.	RANCHI
1654.	HINDALCO INDUSTRIES LTD.	RENUKOOT
1655.	HINDALCO INDUSTRIES LTD.	UJJAIN
1656.	HINDUJA FOUNDRIES LTD.	CHENNAI
1657.	HINDUSTAN AERONAUTICS LTD.	AMETHI
1658.	HINDUSTAN AERONAUTICS LTD.	BANGALORE
1659.	HINDUSTAN AERONAUTICS LTD.	HYDERABAD
1660.	HINDUSTAN AERONAUTICS LTD.	KORAPUT
1661.	HINDUSTAN AERONAUTICS LTD.	NASIK
1662.	HINDUSTAN AERONAUTICS LTD.	SIRSA
1663.	HINDUSTAN AERONAUTICS LTD.	SULTANPUR
1664.	HINDUSTAN AERONAUTICS LTD.	SULTHAN BATHERY
1665.	HINDUSTAN COCA-COLA BEVERAGES PVT. LTD.	CHENNAI
1666.	HINDUSTAN COCA-COLA BEVERAGES PVT. LTD.	THANE
1667.	HINDUSTAN COPPER LTD.	MALANJKHAND
1668.	HINDUSTAN DORR OLIVER TECHNOLOGIES	CHENNAI
1669.	HINDUSTAN PETROLEUM CORPORATION	MUMBAI
1670.	HINDUSTAN PETROLEUM CORPORATION LTD.	NAVI MUMBAI
1671.	HINDUSTAN TURBOMACHINERY LTD.	PUDUKKOTTAI
1672.	HINDUSTAN UNILEVER LTD.	BADDI
1673.	HINDUSTAN UNILEVER LTD.	CHIRAWA
1674.	HINDUSTAN UNILEVER LTD.	TINSUKI
1675.	HIRA INDUSTRIES LLC	DUBAI
1676.	HIRMI CEMENT WORKS	HIRMI
1677.	HITECH DIAGNOSTIC CENTRE	CHENNAI
1678.	HI-TECH MEDICAL COLLEGE & HOSPITAL	BHUBANESWAR
1679.	HLL LIFECARE LTD.	TRIVANDRUM
1680.	HOERBIGER INDIA PVT. LTD.	PUNE
1681.	HOFINCONS INFOTECH & INDUSTRIAL SERVICES	CHENNAI
1682.	HONDA CARS INDIA LTD.	ALWAR
1683.	HONDA CARS INDIA LTD.	BHARATPUR
1684.	HONDA CARS INDIA LTD.	BHIWADI
1685.	HONDA MOTORCYCLE & SCOOTER INDIA PVT. LTD.	GUDIYATTAM
1686.	HONDA MOTORCYCLE & SCOOTER INDIA PVT. LTD.	HOSUR
1687.	HONDA MOTORCYCLE & SCOOTER INDIA PVT. LTD.	HYDERABAD
1688.	HONDA SIEL CARS INDIA LTD.	GREATER NOIDA
1689.	HONDA SIEL CARS INDIA LTD.	NEW DELHI
1690.	HONEYWELL TECHNOLOGY SOLUTIONS	BANGALORE
1691.	HONEYWELL TECHNOLOGY SOLUTIONS	HYDERABAD
1692.	HONEYWELL TECHNOLOGY SOLUTIONS LAB PVT.LTD.	MADURAI
1693.	HONEYWELL TECHNOLOGY SOLUTIONS LAB PVT.LTD.	PUNE
1694.	HOSPINORM LLC	ALAPPUZHA
1695.	HOSPIRA HEALTHCARE INDIA PVT. LTD.	VISHAKAPATNAM
1696.	HOWARD FINLEY AL KHALEEJ	ABU DHABI

1697.	HP GLOBAL SOFT INDIA PVT. LTD.	BANGALORE
1698.	HP GLOBAL SOFT INDIA PVT. LTD.	CHENNAI
1699.	HP GLOBAL SOFT INDIA PVT. LTD.	GHAZIABAD
1700.	HPCL-MITTAL ENERGY LTD.	BATHINDA
1701.	HS ENGINEERING ENTERPRISES	JAIPUR
1702.	HSBC EDPI PVT. LTD.	BANGALORE
1703.	HSBC SOFTWARE DEVELOPMENT INDIA PVT. LTD.	HYDERABAD
1704.	HSBC SOFTWARE DEVELOPMENT INDIA PVT. LTD.	JALGAON
1705.	HSBC SOFTWARE DEVELOPMENT INDIA PVT. LTD.	NELLORE
1706.	HSBC SOFTWARE DEVELOPMENT INDIA PVT. LTD.	PUNE
1707.	HTC GLOBAL SERVICES (INDIA) PVT. LTD.	CHENNAI
1708.	HTC GLOBAL SERVICES (INDIA) PVT. LTD.	HYDERABAD
1709.	HTC GLOBAL SERVICES (INDIA) PVT. LTD.	KANYAKUMARI
1710.	HUAWEI TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
1711.	HUAWEI TECHNOLOGIES INDIA PVT. LTD.	JAMMALAMADUGU
1712.	HUAWEI TECHNOLOGIES INDIA PVT. LTD.	TUMKUR
1713.	HUAWEI TECHNOLOGIES INDIA PVT. LTD.	VELLORE
1714.	HUGHES COMMUNICATION INDIA LTD.	HYDERABAD
1715.	HUMBOLDT WEDAG INDIA PVT. LTD.	DELHI
1716.	HUSCO HYDRAULICS PVT. LTD.	PUNE
1717.	HUSKY INJECTION MOLDING SYSTEMS	CHENNAI
1718.	HUSKY INJECTION MOLDING SYSTEMS	TIRUVANNAMALAI
1719.	HUSKY INJECTION MOLDING SYSTEMS LTD.	MADURAI
1720.	HYDAC (INDIA) PVT. LTD.	COIMBATORE
1721.	HYPERLOCAL PVT. LTD.	BANGALORE
1722.	HYUNDAI MOTOR INDIA LTD.	CHENGALPATTU
1723.	HYUNDAI MOTOR INDIA LTD.	CHENNAI
1724.	HYUNDAI MOTOR INDIA LTD.	GUDUVANCHERRY
1725.	HYUNDAI MOTOR INDIA LTD.	KANCHIPURAM
1726.	HYUNDAI MOTOR INDIA LTD.	TIRUNELVELI
1727.	HYUNDAI MOTOR INDIA LTD.	TIRUVANNAMALAI
1728.	I GATE GLOBAL SOLUTIONS LTD.	PUNE
1729.	I GATE PATNI	PUNE
1730.	I WAVESYSTEMS PVT. LTD.	MADURAI
1731.	I WORK TECHNOLOGIES PVT. LTD.	PUNE
1732.	IJNAUTIX TECHNOLOGIES INDIA PVT. LTD.	CHENNAI
1733.	IANA INDIA PVT. LTD.	VADODARA
1734.	IAP COMPANY PVT. LTD.	NEW DELHI
1735.	IB TECHNOLOGY SOLUTIONS LTD.	NEW DELHI
1736.	IBI CONSULTANCY PVT. INDIA LTD.	BANGALORE
1737.	IBIBO WEB PVT. LTD.	BAREILLY
1738.	IBIBO WEB PVT. LTD.	NEW DELHI
1739.	IBM INDIA PVT. LTD.	AHMEDNAGAR
1740.	IBM INDIA PVT. LTD.	BANGALORE
1741.	IBM INDIA PVT. LTD.	CHENNAI
1742.	IBM INDIA PVT. LTD.	DEHRADUN
1743.	IBM INDIA PVT. LTD.	GHAZIABAD
1744.	IBM INDIA PVT. LTD.	GREATER NOIDA
1745.	IBM INDIA PVT. LTD.	GUNTUR
1746.	IBM INDIA PVT. LTD.	GURGAON
1747.	IBM INDIA PVT. LTD.	HYDERABAD
1748.	IBM INDIA PVT. LTD.	JALANDHAR
1749.	IBM INDIA PVT. LTD.	JANGAON
1750.	IBM INDIA PVT. LTD.	KADAPA
1751.	IBM INDIA PVT. LTD.	KANNUR

1752.	IBM INDIA PVT. LTD.	KARNAL
1753.	IBM INDIA PVT. LTD.	KOLKATA
1754.	IBM INDIA PVT. LTD.	LATUR
1755.	IBM INDIA PVT. LTD.	LONDON
1756.	IBM INDIA PVT. LTD.	MEERUT
1757.	IBM INDIA PVT. LTD.	MUMBAI
1758.	IBM INDIA PVT. LTD.	MYSORE
1759.	IBM INDIA PVT. LTD.	NEW DELHI
1760.	IBM INDIA PVT. LTD.	PONDICHERRY
1761.	IBM INDIA PVT. LTD.	PUNE
1762.	IBM INDIA PVT. LTD.	RAJAPALAYAM
1763.	IBM INDIA PVT. LTD.	RATNAGIRI
1764.	IBM INDIA PVT. LTD.	REWARI
1765.	IBM INDIA PVT. LTD.	SALEM
1766.	IBM INDIA PVT. LTD.	SRIKALAHASTI
1767.	IBM INDIA PVT. LTD.	THANE
1768.	IBM INDIA PVT. LTD.	TIRUVANNAMALAI
1769.	IBM INDIA PVT. LTD.	TRICHIRAPALLI
1770.	IBM INDIA PVT. LTD.	TRICHY
1771.	IBM INDIA PVT. LTD.	TUMKUR
1772.	IBM INDIA PVT. LTD.	VELLORE
1773.	IBM INDIA PVT. LTD.	VISAKHAPATNAM
1774.	IBM INDIA PVT. LTD.	VIZIANAGARAM
1775.	IBM INDIA PVT. LTD.	WARDHA
1776.	IBS SOFTWARE SERVICES PVT. LTD.	ALUVA
1777.	IBS SOFTWARE SERVICES PVT. LTD.	ERNAKULAM
1778.	IBS SOFTWARE SERVICES PVT. LTD.	KOCHI
1779.	IBS SOFTWARE SERVICES PVT. LTD.	KOLLAM
1780.	IBS SOFTWARE SERVICES PVT. LTD.	TRIVANDRUM
1781.	ICERTIS SOLUTIONS PVT. LTD.	PUNE
1782.	ICICI BANK	HYDERABAD
1783.	IDEA CELLULAR LTD.	AHMEDABAD
1784.	IDEA CELLULAR LTD.	BANGALORE
1785.	IDEA CELLULAR LTD.	CALICUT
1786.	IDEA CELLULAR LTD.	CHENNAI
1787.	IDEA CELLULAR LTD.	COCHIN
1788.	IDEA CELLULAR LTD.	DHARMAPURI
1789.	IDEA CELLULAR LTD.	ERNAKULAM
1790.	IDEA CELLULAR LTD.	KANNUR
1791.	IDEA CELLULAR LTD.	MALAPPURAM
1792.	IDEA CELLULAR LTD.	TRISSUR
1793.	IDEAFARMS (CONFIDIGN SOLUTION PVT. LTD.)	GHAZIABAD
1794.	IDEAS A SAS COMPANY	PUNE
1795.	IDEAS SOFTWARE & CONSULTING PVT. LTD.	BANGALORE
1796.	IDEAS2IT TECHNOLOGIES	CHENNAI
1797.	IDEAVATE SOLUTIONS PVT. LTD.	INDORE
1798.	IFB AUTOMOTIVE PVT. LTD.	BANGALORE
1799.	IFB AUTOMOTIVE PVT. LTD.	KRISHNAGIRI
1800.	IG INFOTECH INDIA PVT. LTD.	BANGALORE
1801.	IGARASHI MOTORS INDIA LTD.	CHENNAI
1802.	IGATE COMPUTER SYSTEMS LTD.	CHENNAI
1803.	IGATE COMPUTER SYSTEMS LTD.	MUMBAI
1804.	IGATE GLOBAL SOLUTIONS LTD.	BANGALORE
1805.	IGATE GLOBAL SOLUTIONS LTD.	CHENNAI
1806.	IGATE GLOBAL SOLUTIONS LTD.	GAUTAM BUDHA NAGAR

1807.	IGATE GLOBAL SOLUTIONS LTD.	HYDERBAD
1808.	IGATE GLOBAL SOLUTIONS LTD.	JAGATSINGHPUR
1809.	IGATE GLOBAL SOLUTIONS LTD.	KOLHAPUR
1810.	IGATE GLOBAL SOLUTIONS LTD.	MUMBAI
1811.	IGATE GLOBAL SOLUTIONS LTD.	TIRUCHIRAPPALLI
1812.	IGATE PATNI SYSTEM	HOSUR
1813.	IGEN INFOCOM PVT. LTD.	DHOLPUR
1814.	IIT INDORE	INDORE
1815.	IKA INDIA PVT. LTD.	GULBARGA
1816.	IL&FS ENGINEERING SERVICES	ALLAHABAD
1817.	IMAGERY	CHENNAI
1818.	IMAGINATION TECHNOLOGIES	HYDERABAD
1819.	IMAGINATION TECHNOLOGIES INDIA PVT. LTD.	PUNE
1820.	IMMT BHUBANESWAR	BHUBANESWAR
1821.	IMPETUS INFOTECH PVT. LTD.	NOIDA
1822.	IMPIGER TECHNOLOGIES	COIMBATORE
1823.	IMPIGER TECHNOLOGIES	TIRUPUR
1824.	IMPLANTAIRE TECHNOLOGIES INDIA PVT.LTD.	BANGALORE
1825.	IMPULSE INDIA PVT. LTD.	GURGAON
1826.	IMS HEALTH	BANGALORE
1827.	IMS HEALTH INDIA PVT. LTD.	BANGALORE
1828.	IMTAC LLC	TIRUVARUR
1829.	INA BEARINGS INDIA PVT. LTD.	PUNE
1830.	INANSHU TECHNOLOGIES PVT. LTD.	VIJAYAWADA
1831.	INAPP INFORMATION TECHNOLOGIES	THIRUVANANTHAPURAM
1832.	INAUTIX TECHNOLOGIES INDIA PVT. LTD.	MADURAI
1833.	INAUTIX TECHNOLOGIES INDIA PVT. LTD.	PUNE
1834.	INAUTIX TECHNOLOGIES PVT. LTD.	CHENNAI
1835.	INAUTIX TECHNOLOGY INDIA PVT. LTD.	SALEM
1836.	INAUTIX TECHNOLOGY LTD.	CHENNAI
1837.	INCAP CONTRACT MANUFACTURING SERVICES PV	TUMKUR
1838.	INCUBE SOLUTIONS PVT. LTD.	HYDERABAD
1839.	INDECOMM GLOBAL SERVICES	BANGALORE
1840.	INDECOMM GLOBAL SERVICES	TIRUVALLUR
1841.	INDIA COMNET	CHENNAI
1842.	INDIA EURO TRAVELS	PONDICHERRY
1843.	INDIA HABITAT CENTRE	GURGAON
1844.	INDIA JAPAN LIGHTING PVT. LTD.	SALEM
1845.	INDIA RATINGS & RESEARCH (A FITCH GROUP)	JAIPUR
1846.	INDIA YAMAHA MOTOR PVT. LTD.	BURARI
1847.	INDIAN AIR FORCE	AGRA
1848.	INDIAN AIR FORCE	BANGALORE
1849.	INDIAN AIR FORCE	BANGALORE
1850.	INDIAN AIR FORCE	BAREILLY
1851.	INDIAN AIR FORCE	BARNALA
1852.	INDIAN AIR FORCE	CHENNAI
1853.	INDIAN AIR FORCE	GHAZIABAD
1854.	INDIAN AIR FORCE	HYDERABAD
1855.	INDIAN AIR FORCE	JAIPUR
1856.	INDIAN AIR FORCE	JODHPUR
1857.	INDIAN AIR FORCE	JODHPUR
1858.	INDIAN AIR FORCE	KANPUR
1859.	INDIAN AIR FORCE	KORWA
1860.	INDIAN AIR FORCE	KUMBHIRGRAM
1861.	INDIAN AIR FORCE	MOHALI

1862.	INDIAN AIR FORCE	NAGPUR
1863.	INDIAN AIR FORCE	NALIYA
1864.	INDIAN AIR FORCE	NEW DELHI
1865.	INDIAN AIR FORCE	PATHANKOT
1866.	INDIAN AIR FORCE	PORT BLAIR
1867.	INDIAN AIR FORCE	PUNE
1868.	INDIAN AIR FORCE	SONEPAT
1869.	INDIAN AIR FORCE	SURATGARH
1870.	INDIAN AIR FORCE	THANE
1871.	INDIAN AIR FORCE	TRIVANDRUM
1872.	INDIAN ARMY	BANGALORE
1873.	INDIAN ARMY	BELGAUM
1874.	INDIAN ARMY	BHOPAL
1875.	INDIAN ARMY	DEHRADUN
1876.	INDIAN ARMY	GURGAON
1877.	INDIAN ARMY	JAMMU
1878.	INDIAN ARMY	JORHAT
1879.	INDIAN ARMY	KOLKATA
1880.	INDIAN ARMY	NEW DELHI
1881.	INDIAN ARMY (PROJECT DIARA,HQ IDS)	NEW DELHI
1882.	INDIAN ARMY, MOD, GOVT OF INDIA	JAISALMER
1883.	INDIAN COAST GUARD	NAVI MUMBAI
1884.	INDIAN INSTITUTE FOR PRODUCTION MANAGEME	ROURKELA
1885.	INDIAN INSTITUTE OF PACKAGING	MUMBAI
1886.	INDIAN INSTITUTE OF SCIENCE	BANGALORE
1887.	INDIAN NATIONAL CENTER FOR OCEAN INFORMA	HYDERABAD
1888.	INDIAN NAVY	KRISHNAGIRI
1889.	INDIAN NAVY	NEW DELHI
1890.	INDIAN NAVY	PATIALA
1891.	INDIAN NAVY	VISAKHAPATNAM
1892.	INDIAN NAVY /ECHS	KOCHI
1893.	INDIAN OIL CORPORATION	FARIDABAD
1894.	INDIAN ORGANIZATION TO ACHIEVE	BANGALORE
1895.	INDIAN RAILWAYS	LUCKNOW
1896.	INDIAN RAILWAYS	NAJIBABAD
1897.	INDIAN REGISTER OF SHIPPING	THANE
1898.	INDIAN SEAMLESS METAL TUBES LTD. BARAMATI	BARAMATI
1899.	INDIAN SPACE RESEARCH ORGANISATION	TRIVANDRUM
1900.	INDIAN SPACE RESEARCH ORGANIZATION	BANGALORE
1901.	INDIAN SPACE RESEARCH ORGANIZATION	BHOPAL
1902.	INDIAN SPARE RESEARCH ORGANIZATION	SULLURUPETA
1903.	INDIAN SYNTHETIC RUBBER LTD.	DELHI
1904.	INDIEON TECHNOLOGIES PVT. LTD.	CHITTORGARH
1905.	INDIEON TECHNOLOGIES PVT. LTD.	KOLKATA
1906.	INDO GULF FERTILISERS	SULTANPUR
1907.	INDO-US MIM TEC PVT. LTD.	BANGALORE
1908.	INDO-US MIM TEC PVT. LTD.	PUDUKKOTTAI
1909.	INDUS VALLEY PARTNERS [INDIA] PVT. LTD.	JAIPUR
1910.	INDUSTRIAL CABLE MANAGEMENT SYSTEMS CO.	DOHA
1911.	INDUSTRIES CHIMIQUES DU SENEGAL	CHENNAI
1912.	INEL POWER ELECTROMECHANICAL (LLC)	THIRUVALLUR
1913.	INEL POWER ELECTROMECHANICAL LLC	KANCHIPURAM
1914.	INEL POWER ELECTROMECHANICAL LLC	VADALUR
1915.	INEL POWER ELECTROMECHANICALL LLC	VELLORE
1916.	INEXEL INFOMATICS PVT. LTD.	THIRUPPUR

1917.	INFINEON TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
1918.	INFINERA INDIA PVT. LTD.	BANGALORE
1919.	INFOR GLOBAL SOLUTIONS	HYDERABAD
1920.	INFOR GLOBAL SOLUTIONS	SECUNDERABAD
1921.	INFORMATICA	MADURAI
1922.	INFORMATICA BUSINESS PVT. LTD.	BANGALORE
1923.	INFORMATICA BUSINESS PVT. SOLUTIONS	CHENNAI
1924.	INFORMATICA BUSINESS SOLUTIONS	TIRUPUR
1925.	INFORMATION DYNAMICS LLC	DUBAI
1926.	INFORMATION MOSAIC	GURGAON
1927.	INFOSUVIDHA & SERVICES PVT. LTD.	THIRUVALLUR
1928.	INFOSYS LTD.	ALAPPUZHA
1929.	INFOSYS LTD.	BAHADURGARH
1930.	INFOSYS LTD.	BANGALORE
1931.	INFOSYS LTD.	BHUBANESWAR
1932.	INFOSYS LTD.	CHANDIGARH
1933.	INFOSYS LTD.	CHENGALPATTU
1934.	INFOSYS LTD.	CHENNAI
1935.	INFOSYS LTD.	COCHIN
1936.	INFOSYS LTD.	COIMBATORE
1937.	INFOSYS LTD.	DEHRADUN
1938.	INFOSYS LTD.	DHARMAPURI
1939.	INFOSYS LTD.	DHULE
1940.	INFOSYS LTD.	DINDIGUL
1941.	INFOSYS LTD.	DURGAPUR
1942.	INFOSYS LTD.	ERNAKULAM
1943.	INFOSYS LTD.	ERODE
1944.	INFOSYS LTD.	GHAZIABAD
1945.	INFOSYS LTD.	GWALIOR
1946.	INFOSYS LTD.	HAMIRPUR
1947.	INFOSYS LTD.	HARIDWAR
1948.	INFOSYS LTD.	HOSUR
1949.	INFOSYS LTD.	HUZURABAD
1950.	INFOSYS LTD.	HYDERABAD
1951.	INFOSYS LTD.	JABALPUR
1952.	INFOSYS LTD.	KANCHIPURAM
1953.	INFOSYS LTD.	KANPUR
1954.	INFOSYS LTD.	KARAIKUDI
1955.	INFOSYS LTD.	KARIMNAGAR
1956.	INFOSYS LTD.	KARUR
1957.	INFOSYS LTD.	KOCHI
1958.	INFOSYS LTD.	KOTA
1959.	INFOSYS LTD.	KRISHNAGIRI
1960.	INFOSYS LTD.	LUCKNOW
1961.	INFOSYS LTD.	LUDHIANA
1962.	INFOSYS LTD.	MADURAI
1963.	INFOSYS LTD.	MANGALORE
1964.	INFOSYS LTD.	MAYILADUTHURAI
1965.	INFOSYS LTD.	MUMBAI
1966.	INFOSYS LTD.	PALAKKAD
1967.	INFOSYS LTD.	PANCHKULA
1968.	INFOSYS LTD.	PANIPAT
1969.	INFOSYS LTD.	PONDICHERRY
1970.	INFOSYS LTD.	RAMANAGARA
1971.	INFOSYS LTD.	SALEM

1972.	INFOSYS LTD.	SECUNDERABAD
1973.	INFOSYS LTD.	SHIMLA
1974.	INFOSYS LTD.	SOUTH CANARA
1975.	INFOSYS LTD.	THIRUVALLUR
1976.	INFOSYS LTD.	THIRUVANANTHAPURAM
1977.	INFOSYS LTD.	THRISSUR
1978.	INFOSYS LTD.	TIRUPUR
1979.	INFOSYS LTD.	TIRUVALLUR
1980.	INFOSYS LTD.	TRICHUR
1981.	INFOSYS LTD.	TRIVANDRUM
1982.	INFOSYS LTD.	TUMKUR
1983.	INFOSYS LTD.	UDUPI
1984.	INFOSYS LTD.	UNA
1985.	INFOSYS LTD.	URAPAKKAM
1986.	INFOSYS LTD.	UTHUKOTTAI
1987.	INFOSYS LTD.	VELLORE
1988.	INFOSYS LTD.	VIJAYAWADA
1989.	INFOSYS LTD.	VILLUPURAM
1990.	INFOSYS LTD.	VISAKHAPATNAM
1991.	INFOSYS LTD.	YAMUNANAGAR
1992.	INFOSYS TECHNOLOGIES LTD.	ALAPPUZHA
1993.	INFOSYS TECHNOLOGIES LTD.	ALLAHABAD
1994.	INFOSYS TECHNOLOGIES LTD.	BALASORE
1995.	INFOSYS TECHNOLOGIES LTD.	BANGALORE
1996.	INFOSYS TECHNOLOGIES LTD.	CHANDIGARH
1997.	INFOSYS TECHNOLOGIES LTD.	CHENNAI
1998.	INFOSYS TECHNOLOGIES LTD.	GHAZIABAD
1999.	INFOSYS TECHNOLOGIES LTD.	HOSUR
2000.	INFOSYS TECHNOLOGIES LTD.	HYDERABAD
2001.	INFOSYS TECHNOLOGIES LTD.	JAIPUR
2002.	INFOSYS TECHNOLOGIES LTD.	KANPUR
2003.	INFOSYS TECHNOLOGIES LTD.	KANYAKUMARI
2004.	INFOSYS TECHNOLOGIES LTD.	KOLKATA
2005.	INFOSYS TECHNOLOGIES LTD.	MANGALORE
2006.	INFOSYS TECHNOLOGIES LTD.	MOODBIDRI
2007.	INFOSYS TECHNOLOGIES LTD.	MUMBAI
2008.	INFOSYS TECHNOLOGIES LTD.	PANCHKULA
2009.	INFOSYS TECHNOLOGIES LTD.	SECUNDERABAD
2010.	INFOSYS TECHNOLOGIES LTD.	TRIVANDRUM
2011.	INFOSYS TECHNOLOGIES LTD.	TUMKUR
2012.	INFOTECH ENTERPRISES LTD.	BANGALORE
2013.	INFOTECH ENTERPRISES LTD.	HYDERABAD
2014.	INFOTECH ENTERPRISES LTD.	KAKINADA
2015.	INFOTECH ENTERPRISES LTD.	MYSORE
2016.	INFOTECH ENTERPRISES LTD.	SALEM
2017.	INFOTECH ENTERPRISES LTD.	TIRUNELVELI
2018.	INFOTECH ENTERPRISES LTD.	VISAKHAPATNAM
2019.	INGERSOLL RAND INTERNATIONAL (INDIA) LTD.	BANGALORE
2020.	INGERSOLL-RAND INTERNATIONAL INDIA LTD.	BANGALORE
2021.	INMOBI TECHNOLOGY SERVICES PVT. LTD.	BANGALORE
2022.	INNOMINDS SOFTWARE PVT. LTD.	HYDERABAD
2023.	INNOPARK INDIA PVT. LTD.	CHENNAI
2024.	INOX AIR PRODUCTS LTD.	PUNE
2025.	INPROCS ENGINEERS INDIA PVT. LTD.	UDUPI
2026.	INSPOP.COM LTD.	GURGAON

2027.	INSTACON ENGINEERS &EQUIPMENTS	CHENNAI
2028.	INSTITUE FOR SYSTEMS STUDIES & ANALYSES	DELHI
2029.	INSTITUTE OF MINERALS & MATERIALS TECHNO	BHUBANESWAR
2030.	INTEGRA MICRO SYSTEMS P LTD.	BANGALORE
2031.	INTEGRATED SPECIALIZED GEN. CONTRACTING	ABU DHABI
2032.	INTEL CORPORATION	BANGALORE
2033.	INTEL INDIA TECHNOLOGIES	BANGALORE
2034.	INTEL MICRON FLASH SINGAPORE	RAJAPALAYAM
2035.	INTEL MOBILE COMMUNICATION	BANGALORE
2036.	INTEL MOBILE COMMUNICATIONS INDIA PVT. LT	PALGHAT
2037.	INTEL MOBILE COMMUNICATIONS INDIA PVT LTD	BANGALORE
2038.	INTEL MOBILE COMMUNICATIONS LTD.	CHENNAI
2039.	INTEL TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
2040.	INTEL TECHNOLOGY INDIA PVT. LTD.	BANGALORE
2041.	INTEL TECHNOLOGY PVT. LTD.	BANGALORE
2042.	INTELIZIGN ENGINEERING SERVICES	CHENNAI
2043.	INTELLIGENT CONTROL & AUTOMATION SYSTE	SHARJAH
2044.	INTERGARDEN (INDIA) PVT. LTD. (GLO	BANGALORE
2045.	INTERGLOBE TECHNOLOGIES	ALWAR
2046.	INTERGLOBE TECHNOLOGIES	CHENNAI
2047.	INTERGLOBE TECHNOLOGIES	FATEHPUR
2048.	INTERGLOBE TECHNOLOGIES (IGT)	FARIDABAD
2049.	INTERGRAPH CONSULTING PVT. LTD.	HYDERABAD
2050.	INTERGRAPH CONSULTING PVT. LTD.	SECUNDERABAD
2051.	INTERGRAPH CONSULTING PVT. LTD.	VISAKHAPATNAM
2052.	INTERMEDIA SOFTECH PVT. LTD.	BANGALORE
2053.	INTERNATIONAL AEROSPACE MANUFACTURING PR	MADURAI
2054.	INTERNATIONAL CENTRE FOR AUTOMOTIVE TECH	GURGAON
2055.	INTERNATIONAL TRACTOR LTD.	HOSHIARPUR
2056.	INTERNATIONAL TRACTORS LTD.	BATALA
2057.	INTERNET DATA SERVICES (I) PVT. LTD.	BANGALORE
2058.	INTREX INTERNATIONAL INSPECTION CENTRE W	KUWAIT
2059.	INTUIT INDIA PRODUCT DEVLOPMENT CENTER PVT LTD.	BANGALORE
2060.	INTUIT TECHNOLOGY SERVICES PVT. LTD.	BANGALORE
2061.	INVENGER TECHNOLOGIES PVT. LTD.	MANGALORE
2062.	INVENGER TECHNOLOGIES PVT.LTD	MANGALORE
2063.	INVENSYS INDIA PVT. LTD.	CHENNAI
2064.	INVENSYS RAIL	BANGALORE
2065.	INVENSYS SKELTA	BANGALORE
2066.	IONIDEA	BANGALORE
2067.	IP CORE SOLUTIONS (INDIA) PVT. LTD.	HYDERABAD
2068.	IP INFUSION SOFTWARE INDIA PVT. LTD.	BANGALORE
2069.	IPASS INDIA PVT. LTD.	BANGALORE
2070.	IPINFUSION SOFTWARE INDIA PVT. LTD.E	BANGALORE
2071.	IPRAGMATECH SOLUTIONS PVT. LTD.	GHAZIABAD
2072.	IRESO PVT. LTD.	YAMUNANAGAR
2073.	IRON MOUNTAIN SERVICES	BANGALORE
2074.	ISENSE PROWARENESS	BANGALORE
2075.	ISGEC HEAVY ENGINEERING LTD.	YAMUNANAGAR
2076.	ISHIVANA CONSULTING FZE(UAE)	BARODA
2077.	ISOLUX CORSAN INDIA ENGG & CONS PVT. LTD.	FARIDABAD
2078.	ISPACE GLOBAL SOLUTIONS PVT. LT.	SECUNDERABAD
2079.	ISPAT INDUSTRIES LTD.	NAVI MUMBAI
2080.	ISRO SATELLITE CENTER	BANGALORE
2081.	ISRO-SRIHARIKOTA	NELLORE



2082.	ISS (INDIA) CONSULTANCY SERVICES PVT. LT	BHARUCH
2083.	ISYX TECHNOLOGIES	DUBAI
2084.	IT PEOPLE FZ LLC	DUBAI
2085.	ITAL BEAUTY NIPPERS PVT. LTD.	PUDUCHERRY
2086.	ITC INFOTECH INDIA LTD.	BANGALORE
2087.	ITC INFOTECH INDIA LTD.	GURGAON
2088.	ITC LTD.	BANGALORE
2089.	ITC LTD.	PUNE
2090.	ITC LTD.	SAHARANPUR
2091.	ITER - INDIA, INSTITUTE FOR PLASMA RESEA	BHAVNAGAR
2092.	ITER-INDIA, INSTITUTE FOR PLASMARESEARCH	AHMEDABAD
2093.	ITER-INDIA,INSTITUTE FOR PLASMA RESEARCH	AHMEDABAD
2094.	ITI LTD.,BANGALORE	BANGALORE
2095.	ITM O&M CO LTD.	ABU DHABI
2096.	ITM O&M COMPANY LTD.	ABU DHABI
2097.	ITS DIGITECH PVT. LTD., PUNE	KOLHAPUR
2098.	ITW INDIA LTD.	NEW DELHI
2099.	IVRCL LTD.	KOLKATA
2100.	IVY COMPTECH	HYDERABAD
2101.	IWAVE SYSTEMS TECHNOLOGIES PVT. LTD.	BANGALORE
2102.	IXIA TECHNOLOGIES	BANGALORE
2103.	IXIA TECHNOLOGIES PVT. LTD.	BARASAT
2104.	J P MORGAN INDIA SERVICES LTD.	HYDERABAD
2105.	J P MORGAN SERVICES INDIA PVT. LTD.	MUMBAI
2106.	J P MORGAN SERVICES INDIA PVT. LTD.	THANE
2107.	J RAY MCDERMOTT ENGG. SERVICES PVT. LTD.	CHENNAI
2108.	J S W ENERGY LTD.	MUMBAI
2109.	J. P. MORGAN	MUMBAI
2110.	J.L.N.MEDICAL COLLEGE, AJMER	AJMER
2111.	J.P. MORGAN CHASE	HYDERABAD
2112.	J.RAY MCDERMOTT ENGINEERING SERVICES PVT	CHENNAI
2113.	J2LOGIX PVT. LTD.	CHENNAI
2114.	JACOBS ENGINEERING INDIA PVT. LTD.	MUMBAI
2115.	JACOBS ENGINEERING INDIA PVT. LTD.	PUNE
2116.	JADHAO LAYLAND PVT. LTD.	AMRAVATI
2117.	JAIPRAKASH ASSOCIATES LTD.	KUTCHH
2118.	JAIPRAKASH ASSOCIATES LTD.	TUTICORIN
2119.	JAIPRAKASH ASSOCIATES LTD.	UNITECH HORIZON
2120.	JAMNA AUTO INDUSTRIES LTD.	GWALIOR
2121.	JASHANMAL & PARTNERS LTD.	HAWALLY
2122.	JASLOK HOSPITAL & RESEARCH CENTRE	MUMBAI
2123.	JASMIN INFO TECH PVT. LTD.	CHENNAI
2124.	JASPER INFOTECH PVT. LTD.	UDAIPUR
2125.	JAYPEE CEMENT CORPORATION LTD.	ROBERTSGANJ
2126.	JAYPEE GUJARAT CEMENT PLANT	BHUJ
2127.	JBM LTD.	GURGAON
2128.	JCB INDIA LTD.	AGRA
2129.	JCB INDIA LTD.	FARIDABAD
2130.	JCB INDIA LTD.	GHAZIABAD
2131.	JCB INDIA LTD.	NEW DELHI
2132.	JCB INDIA LTD.	PUNE
2133.	JCB INDIA LTD.	TUNDLA
2134.	JCB MANUFACTURING LTD.	PUNE
2135.	JDA SOFTWARE INDIA PVT. LTD.	HYDERABAD
2136.	JINDAL SAW LTD.	MUNDRA

2137.	JINDAL STEEL & POWER LTD.	ANGUL
2138.	JINDAL STEEL & POWER LTD.	GAJAPAT
2139.	JINDAL STEEL & POWER LTD.	RAIGARH
2140.	JK TYRE & INDUSTRIES LTD.	CHENGALPET
2141.	JK WHITE CEMENT WORKS, GOTAN	GOTAN
2142.	JOHN CRANE MIDDLE EAST & AFRICA	DUBAI
2143.	JOHN DEERE	PUNE
2144.	JOHN DEERE INDIA PVT. LTD.	BIJAPUR
2145.	JOHN DEERE INDIA PVT. LTD.	PUNE
2146.	JOHN DEERE TECHNOLOGY CENTER	PUNE
2147.	JOHNSON & JOHNSON LTD.	MUMBAI
2148.	JOHNSON CONTROLS AUTOMOTIVE LTD.	PUNE
2149.	JOHNSON CONTROLS AUTOMOTIVE LTD.	RAJGURUNAGAR
2150.	JOHNSON CONTROLS INDIA PVT. LTD.	PUNE
2151.	JOHNSON LIFTS PVT. LTD.	CHENNAI
2152.	JOSEPH EYE HOSPITAL	TRICHY
2153.	JP MORGAN	NEW DELHI
2154.	JP MORGAN CHASE	HYDERABAD
2155.	JP MORGAN CHASE BANK	THRISSUR
2156.	JP MORGAN CHASE INDIA PVT. LTD.	MUMBAI
2157.	JP MORGAN CHASE INDIA PVT. LTD.	SECUNDERABAD
2158.	JP MORGAN INDIA PVT. LTD.	MUMBAI
2159.	JP MORGAN SERVICES INDIA PVT. LTD.	BANGALORE
2160.	JP MORGAN SERVICES INDIA PVT. LTD.	HYDERABAD
2161.	JP MORGAN SERVICES INDIA PVT. LTD.	MUMBAI
2162.	JRD INTERNATIONAL	JABEL ALI
2163.	JSOFT SOLUTION LTD. ( JSW GROUP)	MUMBAI
2164.	JSOFT SOLUTION LTD. ( JSW GROUP)	PILANI
2165.	JSW STEEL LTD.	BELLARY
2166.	JSW STEEL LTD.	NEVI MUMBAI
2167.	JSW STEEL LTD.	SALEM
2168.	JSW STEEL LTD.	TORANAGALLU
2169.	JUBILANT LIFE SCIENCE	HOSUR
2170.	JUMA AL MAJID EST	TRICHY
2171.	JUNIPER NETWORKS INDIA PVT. LTD.	BANGALORE
2172.	JUNIPER NETWORKS INDIA PVT. LTD.	BODINAYAKANUR
2173.	JUNIPER NETWORKS INDIA PVT. LTD.	CHENNAI
2174.	JUNIPER NETWORKS INDIA PVT. LTD.	CHIDAMBARAM
2175.	JUNIPER NETWORKS INDIA PVT. LTD.	KRISHNAGIRI
2176.	JUNIPER NETWORKS INDIA PVT. LTD.	TRICHUR
2177.	JURONG AROMATICS CORPORATION PTE LTD.	SANKARAN KOVIL
2178.	JURONG AROMATICS CORPORATION PTE. LTD.	MADURAI
2179.	JURONG SHIPYARD PTE LTD.	SINGAPORE
2180.	K POINT TECHNOLOGIES PVT. LTD.	PUNE
2181.	K.A.PRECISION ENGINEERING	COIMBATORE
2182.	KAANE AMERICAN INTERNATIONAL TOBACCO COM	CHANDIGARH
2183.	KABRA EXTRUSIONTECHNIK LTD.	VAPI
2184.	KALYANI GERDAU STEELS LTD.	BELLARY
2185.	KALYANI THERMAL SYSTEMS LTD.	PUNE
2186.	KAMAZ VECTRA MOTORS LTD.	HOSUR
2187.	KAMRANS PROCESS CONTROL	CHENNAI
2188.	KAMRANS PROCESS CONTROL	NAGERCOIL
2189.	KANHATECH SOLUTION LTD.	BANGALORE
2190.	KANIN (INDIA)	LUDHIANA
2191.	KAPLAN INDIA	HYDERABAD

2192.	KAR CLINIC & HOSPITAL PVT. LTD.	BHUBANESWAR
2193.	KASEYA SOFTWARE INDIA PVT. LTD.	BANGALORE
2194.	KAVVERI TELECOM PRODUCTS LTD.	BANGALORE
2195.	KEANE (INTERNATIONAL) INDIA PVT. LTD.	CHENNAI
2196.	KEANE INDIA PVT. LTD.	CHENNAI
2197.	KEANE INDIA PVT. LTD.,	ERODE
2198.	KENDRIYA VIDYALAYA HEBBAL BANGALORE	BANGALORE
2199.	KENEXA AN IBM COMPANY	VISAKHAPATNAM
2200.	KENEXA TECHNOLOGIES PVT. LTD.	VISAKHAPATNAM
2201.	KENNA METAL	MYSORE
2202.	KENNAMETAL INDIA LTD.	BANGALORE
2203.	KENNAMETAL SHARED SERVICES PVT. LTD.	BANGALORE
2204.	KENTZ OVERSEAS LTD.	MANGAF
2205.	KERN LEARNING SOLUTIONS	BANGALORE
2206.	KERRY INGREDIENTS INDIA PVT. LTD.	CHENNAI
2207.	KG DESIGN SERVICES PVT. LTD.	COIMBATORE
2208.	KGHIROTEC ENGINEERING SERVICES (P) LTD.	COIMBATORE
2209.	KHALIFA UNIVERSITY	ABU DHABI
2210.	KHANSAHEB CIVIL ENGINEERING LLC	AL RASHIDIYA
2211.	KIE ENGINEERING PVT. LTD.	ROORKEE
2212.	KINAPSE INDIA LTD.	GURGAON
2213.	KING ABDULLAH UNIVERSITY OF SCIENCE &	JEDDAH
2214.	KIRLOSKAR OIL ENGINES LTD.	BELGAUM
2215.	KIRLOSKAR OIL ENGINES LTD.	CHENNAI
2216.	KIRLOSKAR OIL ENGINES LTD.	COIMBATORE
2217.	KIRLOSKAR OIL ENGINES LTD.	GOKAK
2218.	KIRLOSKAR OIL ENGINES LTD.	HUBLI
2219.	KIRLOSKAR OIL ENGINES LTD.	KOLHAPUR
2220.	KIRLOSKAR OIL ENGINES LTD.	PUNE
2221.	KIRTILALS JEWELLERS PVT. LTD.	COIMBATORE
2222.	KISHKINDA SOFTWARE LABS	BANGALORE
2223.	KJS INDIA PVT.LTD	ZAHIRABAD
2224.	KLAUS IT SOULTIONS	CHENNAI
2225.	KMITSOLUTIONS	COIMBATORE
2226.	KNEXIR CONSULTANT PVT. LTD.	NAVI MUMBAI
2227.	KNORR BREMSE	PUNE
2228.	KOBELCO CONSTRUCTION INDIA PVT. LTD.	CHENNAI
2229.	KODIAK NETWORKS	BANGALORE
2230.	KODIAK NETWORKS INDIA PVT. LTD.	BANGALORE
2231.	KOHINOOR COLLEGE OF PARAMEDICAL SCIENCES	MUMBAI
2232.	KOMATSU INDIA PVT. LTD.	TRICHY
2233.	KOMET PRECISION TOOLS IND PVT. LTD.	HUBLI
2234.	KOMET PRECISION TOOLS INDIA PVT. LTD.	BANGALORE
2235.	KONE CRANES INDIA PVT. LTD.	PUNE
2236.	KONE CRANES SHARED SERVICES INDIA	PUNE
2237.	KONE ELEVATOR INDIA PVT. LTD.	CHENNAI
2238.	KONE ELEVATOR INDIA PVT. LTD. CHENNAI	THIRUVALLUR
2239.	KONE MIDDLE EAST LLC	ABU DHABI
2240.	KONE MIDDLE EAST LLC	DUBAI
2241.	KONY IT SERVICES PVT. LTD.	HYDERABAD
2242.	KOREA PLANT SERVICE & ENGINEERING	WARAORA
2243.	KOTESHWAR SOFTWARE TECHNOLOGIES & CONS	BANGALORE
2244.	KOYAS FASTENERS PVT. LTD.,,	KANCHIPURAM
2245.	KOYO BEARINGS INDIA PVT. LTD.	KARNAL
2246.	KPIT CUMMINS INFOSYSTEMS LTD.	BANGALORE

2247.	KPIT CUMMINS INFOSYSTEMS LTD.	KOTTAYAM
2248.	KPIT CUMMINS INFOSYSTEMS LTD.	PUNE
2249.	KPIT TECHNOLOGIES LTD.	CHIDAMBARAM
2250.	KPIT TECHNOLOGIES LTD.	PUNE
2251.	KRAMSKI STAMPING & MOLDING INDIA PVT,LTD	VELLORE
2252.	KRATIN SOFTWARE SOLUTIONS PVT. LTD.	NAGPUR
2253.	KROHNE MARSHALL PVT. LTD. ( FORBES MARSHAL)	PUNE
2254.	KRONOS SOLUTIONS INDIA PVT. LTD.	GHAZIABAD
2255.	KRONOS SYSTEMS INDIA PVT. LTD.	BANGALORE
2256.	KSB MIDDLE EAST FZE	DUBAI
2257.	KSK ENERGY VENTURES	HYDERABAD
2258.	KSPG AUTOMOTIVE INDIA PVT. LTD.	AURANGABAD
2259.	KUMAR PROCESS CONSULTANTS & CHEMICALS PV	MUMBAI
2260.	KUSALAVA INTERNATIONAL LTD.	GUNTUR
2261.	KUWAIT NATIONAL PETROLEUM COMPANY (THROU	MANGAF
2262.	KUWAIT OIL COMPANY	AHMADI
2263.	L & T VALVES LTD.	COIMBATORE
2264.	L&T CONSTRUCTION	BANGALORE
2265.	L&T CONSTRUCTION	BANSWARA
2266.	L&T CONSTRUCTION	CHENNAI
2267.	L&T CONSTRUCTION	COIMBATORE
2268.	L&T CONSTRUCTION	FARIDABAD
2269.	L&T CONSTRUCTION	HOWRAH
2270.	L&T CONSTRUCTION	NAMAKKAL
2271.	L&T CONSTRUCTION	RAJPURA
2272.	L&T CONSTRUCTION	TIRUNELVELI
2273.	L&T CONSTRUCTION	TITILAGARH
2274.	L&T IES (INTEGRATED ENGINEERING SERVICES	BANGALORE
2275.	L&T IES (INTEGRATED ENGINEERING SERVICES	BARODA
2276.	L&T IES (INTEGRATED ENGINEERING SERVICES	MYSORE
2277.	L&T IES (INTEGRATED ENGINEERING SERVICES	TRICHY
2278.	L&T IES (INTEGRATED ENGINEERING SERVICES	VADODARA
2279.	L&T INFOTECH LTD.	BANGALORE
2280.	L&T INFOTECH LTD.	CHENNAI
2281.	L&T INFOTECH LTD.	NAGPUR
2282.	L&T INFOTECH LTD.	NAVI MUMBAI
2283.	L&T INFOTECH LTD.	PERIYAKULAM
2284.	L&T INFOTECH LTD.	PUNE
2285.	L&T INTEGRATED ENGINEERING SERVICES	COIMBATORE
2286.	L&T INTEGRATED ENGINEERING SERVICES	KANNUR
2287.	L&T INTEGRATED ENGINEERING SERVICES	VADODARA
2288.	L&T MHI BOILERS PVT. LTD.	CHENNAI
2289.	L&T MHI BOILERS PVT. LTD.	SURAT
2290.	L&T MHI BOILERS PVT. LTD.	TRICHY
2291.	L&T MODULAR FABRICATION YARD LLC	SOHAR
2292.	L&T SHIPBUILDING LTD.	CHENNAI
2293.	L&T VALDEL ENGINEERING LTD.	CHENNAI
2294.	L&T VALVES LTD.	CHENNAI
2295.	L&T VALVES LTD.	PALAKKAD
2296.	L&T- WATER & RENEWABLE ENERGY IC	BANGALORE
2297.	L&T, ECC DIVISION	KIASTWAR
2298.	L.V. PRASAD EYE INSTITUTE	HYDERABAD
2299.	LAHMEYER INTERNATIONAL GMBH	VADALUR , CUDDALORE DISTR
2300.	LAKSHMI CARD CLOTHING MFG CO. PVT. LTD.	COIMBATORE
2301.	LAKSHMI MACHINE WORKS LTD.	COIMBATORE

2302.	LAMPRELL ENERGY	SHARJAH
2303.	LAMPRELL ENERGY LTD.	JEBEL ALI
2304.	LANCO INFRATECH LTD.	DELHI
2305.	LANCO INFRATECH LTD.	HYDERABAD
2306.	LANDIS+GYR	GHAZIABAD
2307.	LARSEN & TOUBRO LTD.	ABU DHABI
2308.	LARSEN & TOUBRO LTD.	AHMEDABAD
2309.	LARSEN & TOUBRO LTD.	AHMEDNAGAR
2310.	LARSEN & TOUBRO LTD.	AKOLA
2311.	LARSEN & TOUBRO LTD.	ALLAHABAD
2312.	LARSEN & TOUBRO LTD.	AMRAVATI
2313.	LARSEN & TOUBRO LTD.	AMRITSAR
2314.	LARSEN & TOUBRO LTD.	ANAND
2315.	LARSEN & TOUBRO LTD.	ANGUL
2316.	LARSEN & TOUBRO LTD.	ANPARA
2317.	LARSEN & TOUBRO LTD.	ANUMALA
2318.	LARSEN & TOUBRO LTD.	BALASORE
2319.	LARSEN & TOUBRO LTD.	BALLIA
2320.	LARSEN & TOUBRO LTD.	BALLY
2321.	LARSEN & TOUBRO LTD.	BANGALORE
2322.	LARSEN & TOUBRO LTD.	BAREILLY
2323.	LARSEN & TOUBRO LTD.	BATALA
2324.	LARSEN & TOUBRO LTD.	BATHINDA
2325.	LARSEN & TOUBRO LTD.	BELLARY
2326.	LARSEN & TOUBRO LTD.	BHARUCH
2327.	LARSEN & TOUBRO LTD.	BURDWAN
2328.	LARSEN & TOUBRO LTD.	CHAKDAHA
2329.	LARSEN & TOUBRO LTD.	CHANDALI
2330.	LARSEN & TOUBRO LTD.	CHANDRAPUR
2331.	LARSEN & TOUBRO LTD.	CHENNAI
2332.	LARSEN & TOUBRO LTD.	CHIDAMBARAM
2333.	LARSEN & TOUBRO LTD.	CHITTORGARH
2334.	LARSEN & TOUBRO LTD.	COIMBATORE
2335.	LARSEN & TOUBRO LTD.	CUDDALORE
2336.	LARSEN & TOUBRO LTD.	DAWAKA
2337.	LARSEN & TOUBRO LTD.	DOHA
2338.	LARSEN & TOUBRO LTD.	ERNAKULAM
2339.	LARSEN & TOUBRO LTD.	ERODE
2340.	LARSEN & TOUBRO LTD.	FARIDABAD
2341.	LARSEN & TOUBRO LTD.	GORAKHPUR
2342.	LARSEN & TOUBRO LTD.	GUDIVADA
2343.	LARSEN & TOUBRO LTD.	GURGAON
2344.	LARSEN & TOUBRO LTD.	HODAL
2345.	LARSEN & TOUBRO LTD.	HOOGHLY
2346.	LARSEN & TOUBRO LTD.	HOWRAH
2347.	LARSEN & TOUBRO LTD.	HYDERABAD
2348.	LARSEN & TOUBRO LTD.	JABALPUR
2349.	LARSEN & TOUBRO LTD.	JAIPUR
2350.	LARSEN & TOUBRO LTD.	JAJPUR ROAD
2351.	LARSEN & TOUBRO LTD.	JOSHIMATH
2352.	LARSEN & TOUBRO LTD.	KADAPA
2353.	LARSEN & TOUBRO LTD.	KOLKATA
2354.	LARSEN & TOUBRO LTD.	KOTAURATLA
2355.	LARSEN & TOUBRO LTD.	LOWELL
2356.	LARSEN & TOUBRO LTD.	LUCKNOW

2357.	LARSEN & TOUBRO LTD.	MADURAI
2358.	LARSEN & TOUBRO LTD.	MAHISHADAL
2359.	LARSEN & TOUBRO LTD.	MANKUNDU
2360.	LARSEN & TOUBRO LTD.	MEICHERI
2361.	LARSEN & TOUBRO LTD.	MIRAJ
2362.	LARSEN & TOUBRO LTD.	MUMBAI
2363.	LARSEN & TOUBRO LTD.	MUSCAT
2364.	LARSEN & TOUBRO LTD.	MUVATTUPUZHA
2365.	LARSEN & TOUBRO LTD.	NAGAPATTINAM
2366.	LARSEN & TOUBRO LTD.	NAGPUR
2367.	LARSEN & TOUBRO LTD.	NAIHATI
2368.	LARSEN & TOUBRO LTD.	NAMAKKAL
2369.	LARSEN & TOUBRO LTD.	NAVI MUMBAI
2370.	LARSEN & TOUBRO LTD.	NEW DELHI
2371.	LARSEN & TOUBRO LTD.	PALAKKAD
2372.	LARSEN & TOUBRO LTD.	PANCHKULA
2373.	LARSEN & TOUBRO LTD.	PATNA
2374.	LARSEN & TOUBRO LTD.	PONDICHERRY
2375.	LARSEN & TOUBRO LTD.	PUDUKKOTTAI
2376.	LARSEN & TOUBRO LTD.	PUNE
2377.	LARSEN & TOUBRO LTD.	RAMNAD
2378.	LARSEN & TOUBRO LTD.	RAYAGADA
2379.	LARSEN & TOUBRO LTD.	REWA
2380.	LARSEN & TOUBRO LTD.	ROCKFORD
2381.	LARSEN & TOUBRO LTD.	RUDRAPRAYAG
2382.	LARSEN & TOUBRO LTD.	RUWI
2383.	LARSEN & TOUBRO LTD.	SALEM
2384.	LARSEN & TOUBRO LTD.	SHARJAH
2385.	LARSEN & TOUBRO LTD.	SINGRAULI
2386.	LARSEN & TOUBRO LTD.	SIVAGANGAI
2387.	LARSEN & TOUBRO LTD.	SOHAR
2388.	LARSEN & TOUBRO LTD.	TANJORE
2389.	LARSEN & TOUBRO LTD.	TAPI
2390.	LARSEN & TOUBRO LTD.	THANE
2391.	LARSEN & TOUBRO LTD.	THANJAVUR
2392.	LARSEN & TOUBRO LTD.	THENI
2393.	LARSEN & TOUBRO LTD.	THIRUTHANGAL
2394.	LARSEN & TOUBRO LTD.	THIRUVARUR
2395.	LARSEN & TOUBRO LTD.	THRISSUR
2396.	LARSEN & TOUBRO LTD.	TIRUNELVELI
2397.	LARSEN & TOUBRO LTD.	TIRUPUR
2398.	LARSEN & TOUBRO LTD.	TIRUVANNAMALAI
2399.	LARSEN & TOUBRO LTD.	TRICHIRAPALLI
2400.	LARSEN & TOUBRO LTD.	TRICHY
2401.	LARSEN & TOUBRO LTD.	UTTARPARA
2402.	LARSEN & TOUBRO LTD.	VADALUR
2403.	LARSEN & TOUBRO LTD.	VADODARA
2404.	LARSEN & TOUBRO LTD.	VARANASI
2405.	LARSEN & TOUBRO LTD.	VELLORE
2406.	LARSEN & TOUBRO LTD.	VISAKHAPATNAM
2407.	LARSEN & TOUBRO LTD.	VYARA
2408.	LARSEN & TOUBRO LTD.	W Aidhan
2409.	LATA POWER CONTROL ENGINEERS P. LTD.	NASHIK
2410.	LAVA INTERNATIONAL LTD.	NOIDA
2411.	LAVASA CORPORATION LTD.	PUNE

2412.	LEAR AUTOMOTIVE INDIA PVT. LTD.	THANE
2413.	LEEBOY INDIA CONSTRUCTION EQUIP (P) LTD.	BANGALORE
2414.	LEFEBVRE ENGINEERING	SHARJAH
2415.	LEGRAND SNC FZE	DUBAI
2416.	LEKHA WIRELESS SOLUTIONS PVT. LTD.	BANGALORE
2417.	LENOVO INDIA PVT. LTD.	BANGALORE
2418.	LEO TECHNOSOFT PVT.LTD	PHALTAN
2419.	LEXMARK INDIA PVT. LTD.	KOLKATA
2420.	LG ELECTRONICS INDIA PVT. LTD.	ALWAR
2421.	LG ELECTRONICS INDIA PVT. LTD.	CHENNAI
2422.	LG ELECTRONICS INDIA PVT. LTD.	GHAZIABAD
2423.	LG SOFT INDIA PVT. LTD.	BANGALORE
2424.	LG SOFT INDIA PVT. LTD.	SHIMOGA
2425.	LIBENTE ONLINE PVT. LTD.	CHENNAI
2426.	LINDE ENGINEERING INDIA PVT. LTD.	VADODARA
2427.	LINDE INDIA LTD.	KOLKATA
2428.	LINGUANEXT TECHNOLOGIES PVT. LTD.	PUNE
2429.	LIQUIDHUB INDIA PVT.LTD	HYDERABAD
2430.	LISTER TECHNOLOGIES (P) LTD.	CHENNAI
2431.	LITE-ON MOBILE INDIA PVT. LTD.	KANCHIPURAM
2432.	LIVE CONNECTIONS	CHENNAI
2433.	LM ERICSSON LTD.,	BANGALORE
2434.	LM WIND POWER TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
2435.	LM WIND POWER TECHNOLOGIES INDIA PVT. LTD.	HASSAN
2436.	LM WINDPOWER TECHNOLOGIES (INDIA) PVT. LTD.	BANGALORE
2437.	LMS INDIA ENGINEERING SOLUTIONS PVT. LTD.	CHENNAI
2438.	LMS INDIA ENGINEERING SOLUTIONS PVT. LTD.	SILVASSA
2439.	LNT INFOTECH	BANGALORE
2440.	LNV TECHNOLOGY PVT. LTD.	CHENNAI
2441.	LOCUZ ENTERPRISE SOLUTIONS	CHENNAI
2442.	LOGICA INDIA LTD.	CHENNAI
2443.	LOGICA PVT. LTD. (A CGI GROUP COMPANY)	CHENNAI
2444.	LOGICA PVT. LTD., NOW PART OF CGI	CHENNAI
2445.	LOGITECH ENGINEERING & DESIGNS PVT. LTD.	CHENNAI
2446.	LOKESH MACHINES LTD.	HYDERABAD
2447.	LPSC/ISRO, GOVT. OF INDIA	BANGALORE
2448.	LSI INDIA R&D PVT. LTD.	BANGALORE
2449.	LSI INDIA RESEARCH & DEVELOPMENT PVT. LTD.	BANGALORE
2450.	LUCAS TVS LTD.	CHENNAI
2451.	LUCAS TVS LTD.	REWARI
2452.	LUCAS TVS PVT. LTD.	PUDUCHERRY
2453.	LUCAS-TVS	CHENNAI
2454.	LUCAS-TVS	KARUR
2455.	LUCAS-TVS LTD.	CHENNAI
2456.	LUCAS-TVS LTD.	REWARI
2457.	LUCENT TECHNOLOGIES INDIA LTD.	BANGALORE
2458.	LUCID IMAGING PVT. LTD.	BANGALORE
2459.	LUCID SOFTWARE LTD.	ERODE
2460.	LUCID SOFTWARE LTD.	NAMAKKAL
2461.	LUCID SOFTWARE LTD.	THIRUVALLUR
2462.	LUK INDIA PVT. LTD.	DHARMAPURI
2463.	LUK INDIA PVT. LTD.	HOSUR
2464.	LUK INDIA PVT. LTD.	HOSUR
2465.	LUK INDIA PVT. LTD.	NAVI MUMBAI
2466.	LUK INDIA PVT. LTD.	VETTAVALAM

2467.	LUMEDX INDIA HEALTHCARE TECHNOLOGIES PVT.LTD.	PUNE
2468.	LUMINESCENT SOFTWARE PVT. LTD.	TRIVANDRUM
2469.	LUPIN LTD.	MUMBAI
2470.	LYCA TECHNOLOGIES SOLUTIONS PVT. LTD.	CHENNAI
2471.	M J CASTING LTD., HOSUR	HOSUR
2472.	M&M LTD. ,NAGPUR	NAGPUR
2473.	M/S, TITAN COMPANY LTD.	HOSUR
2474.	M/S. LARSEN & TOUBRO LTD.	RAIPUR
2475.	M/S. PRATIK & RITVIK CONSTRUCTIONS	MARGAO
2476.	M/S.AL MAZROUEI BOWYER BUILDING LLC	DUBAI
2477.	M/S.ALSTOM T&D INDIA LTD.,	CUDDALORE
2478.	M/S.BINGHALIB ENGINEERING INDU. L.L.C	SHARJAH
2479.	M/S.CIRCOR FLOW TECHNOLOGIES INDIA P LTD.	UTHAMAPALAYAM TK
2480.	M/S.COLORLINES PRINTING PRESS	DIERA
2481.	M/S.FORCE MOTORS LTD.	CHENNAI
2482.	M/S.GODREJ&BOYCE MFG. CO. LTD.	MUMBAI
2483.	M/S.INDIAN STEELS CORPORATION LTD.	GANDHIDAM
2484.	M/S.L&T HYDROCARBON ENGINEERING LTD.	SHARJAH
2485.	M/S.LARSEN & TOUBRO LTD.	KAKINADA
2486.	M/S.TITAN INDUSTRIES LTD.,	BANGALORE
2487.	M/S.VAATA INFRA PVT. LTD.	CHENNAI
2488.	MACAWBER BEEKAY PVT. LTD.	JAIPUR
2489.	MACNET ENGINEERING PVT. LTD.	CHENNAI
2490.	MACROSOFT IT SOLUTIONS INDIA PVT. LTD.	LUCKNOW
2491.	MADEEN ALUMINIUM COMPANY	AL-KHOBAR
2492.	MADOX TECHNOLOGIES	BANGALORE
2493.	MADRAS CEMENTS LTD.	ALATHIYUR
2494.	MADRAS CEMENTS LTD.	ARIYALUR
2495.	MADRAS CEMENTS LTD.	MADURAI
2496.	MADRAS MEDICAL MISSION	CHENNAI
2497.	MAERSK GLOBAL SERVICE CENTRE (INDIA) PVT.LTD.	PUNE
2498.	MAERSK GLOBAL SERVICES	CHENNAI
2499.	MAFFEI PROJECTS INDIA PVT. LTD.	BANGALORE
2500.	MAGIC SOFTWARE	NOIDA
2501.	MAGIC SOFTWARE PVT. LMT	FARIDABAD
2502.	MAGNA COSMA INTERNATIONAL (INDIA)PVT LTD.	MALAPPURAM
2503.	MAGNA INFOTECH PVT. LTD.	BANGALORE
2504.	MAGNA INFOTECH PVT. LTD.	NEW DELHI
2505.	MAGNA SOFT CONSULTING INDIA PVT. LTD.	THANE
2506.	MAGNA STEYR INDIA PVT. LTD.	PUNE
2507.	MAGNAQUEST TECHNOLOGIES LTD.	HYDERABAD
2508.	MAGNAQUEST TECHNOLOGIES LTD.	KANPUR
2509.	MAGNASOFT CONSULTING INDIA PVT. LTD.	BANGALORE
2510.	MAGNATI MARELLI UM ELECTRONICS SYSTEMS P	GURGAON
2511.	MAGNETI MARELLI	GHAZIABAD
2512.	MAGNETI MARELLI UM ELECTRONIC SYSTEMS PV	GURGAON
2513.	MAHALAKSHMI INDUSTRIES	HOSUR
2514.	MAHANAGAR TELEPHONE NIGAM LTD.	MUMBAI
2515.	MAHARASHTRA NATURAL GAS LTD.	PUNE
2516.	MAHIANDRAREVA ELECTRICALS VEHICLES P	WARANGAL
2517.	MAHIDHARA PROJECTS PVT. LTD.	HYDERABAD
2518.	MAHINDRA & MAHINDRA LTD.	CHANDRAPUR
2519.	MAHINDRA & MAHINDRA LTD.	CHENGALPATTU
2520.	MAHINDRA & MAHINDRA LTD.	CHENGALPET
2521.	MAHINDRA & MAHINDRA LTD.	CHENNAI



2522.	MAHINDRA & MAHINDRA LTD.	DHAMPUR
2523.	MAHINDRA & MAHINDRA LTD.	HYDERABAD
2524.	MAHINDRA & MAHINDRA LTD.	KASARE
2525.	MAHINDRA & MAHINDRA LTD.	LUCKNOW
2526.	MAHINDRA & MAHINDRA LTD.	MADURAI
2527.	MAHINDRA & MAHINDRA LTD.	MOHALI
2528.	MAHINDRA & MAHINDRA LTD.	NAGPUR
2529.	MAHINDRA & MAHINDRA LTD.	NASHIK
2530.	MAHINDRA & MAHINDRA LTD.	PALANI
2531.	MAHINDRA & MAHINDRA LTD.	PUNE
2532.	MAHINDRA & MAHINDRA LTD.	RUDRAPUR
2533.	MAHINDRA & MAHINDRA LTD.	THANE
2534.	MAHINDRA & MAHINDRA LTD.	ZAHEERABAD
2535.	MAHINDRA COMVIVA	BANGALORE
2536.	MAHINDRA COMVIVA	DELHI
2537.	MAHINDRA ENGG SERVICES -M&M	KANCHIPURAM
2538.	MAHINDRA ENGINEERING SERVICES	PUNE
2539.	MAHINDRA NAVISTAR AUTOMOTIVE LTD.	BANGALORE
2540.	MAHINDRA NAVISTAR ENGINES PVT. LTD.	PUNE
2541.	MAHINDRA REVA ELECTRIC VEHICLES PVT. LTD.	BANGALORE
2542.	MAHINDRA SATYAM COMPUTER SERVICES PVT. LTD.	BANGALORE
2543.	MAHINDRA SATYAM COMPUTER SERVICES PVT. LTD.	CHENNAI
2544.	MAHINDRA SATYAM COMPUTER SERVICES PVT. LTD.	GHAZIABAD
2545.	MAHINDRA SATYAM COMPUTER SERVICES PVT. LTD.	GUNTUR
2546.	MAHINDRA SATYAM COMPUTER SERVICES PVT. LTD.	HYDERABAD
2547.	MAHINDRA SATYAM COMPUTER SERVICES PVT. LTD.	KAKINADA
2548.	MAHINDRA SATYAM COMPUTER SERVICES PVT. LTD.	KARIMNAGAR
2549.	MAHINDRA SATYAM COMPUTER SERVICES PVT. LTD.	PUNE
2550.	MAHINDRA TRUCKS & BUSES LTD.	PUNE
2551.	MAHINDRA TRUCKS & BUSES LTD.	ZAHEERABAD
2552.	MAHINDRA TWO WHEELERS	DHULE
2553.	MAHINDRA UGINE STEEL CO LTD.	PUNE
2554.	MAHINDRA VEHICLE MANUFACRURES	SHRIRAMPUR
2555.	MAHINDRA VEHICLE MANUFACTURERS	SOLAPUR
2556.	MAHINDRA VEHICLE MANUFACTURERS LTD.	BHOPAL
2557.	MAHINDRA VEHICLE MANUFACTURERS LTD.	DHULE
2558.	MAHINDRA VEHICLE MANUFACTURERS LTD.	PUNE
2559.	MAHLE FILTER SYSTEMS (INDIA) LTD.	GURGAON
2560.	MAIHAR CEMENT	MAIHAR
2561.	MAIHAR CEMENT (PROP. CENTURY TEXTILES &	SATNA
2562.	MAKINO AUTO IND. PVT. LTD.	DELHI
2563.	MAKINO INDIA PVT. LTD.	BANGALORE
2564.	MAMIGO TECHNOLOGY SOLUTIONS PVT. LTD.	BANGALORE
2565.	MANATEC ELECTRONICS PVT. LTD.	KANCHIPURAM
2566.	MANDO AUTOMOTIVE INDIA LTD.	CHENNAI
2567.	MANDO INDIA STEERING	CHENNAI
2568.	MANHATTAN ASSOCIATES	BANGALORE
2569.	MANUFACTURING INTEGRATION TECHNOLOGY LTD.	SINGAPORE
2570.	MAPCO LLC	ABU DHABI
2571.	MAPLES ESM TECHNOLOGIES	CHENNAI
2572.	MAPLETON INFOTECH PVT. LTD.	BANGALORE
2573.	MARATHON ELECTRIC INDIA PVT. LTD.	ROORKEE
2574.	MARICO LTD.	GORIMEDU
2575.	MARICO LTD.	PONDA
2576.	MARLABS	BANGALORE

2577.	MARLABS INC	TRIVANDRUM
2578.	MARLABS SOFTWARE PVT. LTD.	BANGALORE
2579.	MARS GCC	AL MAJAZ
2580.	MARS INTERNATIONAL INDIA PVT. LTD.	SECUNDERABAD
2581.	MARS TELECOM SYSTEMS PVT. LTD.	HYDERABAD
2582.	MARUTI SUZUKI INDIA LTD.	BHARATPUR
2583.	MARUTI SUZUKI INDIA LTD.	GURGAON
2584.	MARVELL INDIA PVT. LTD.	NAGPUR
2585.	MARVELL INDIA PVT. LTD.	PUNE
2586.	MAS CALL NET INDIA PVT. LTD.	NEW DELHI
2587.	MASTERSYS TECH PVT. LTD.	CHENNAI
2588.	MASTERSYS TECH PVT. LTD.	PUDUCHERRY
2589.	MATA CHANAN DEVI HOSPITAL	DELHI
2590.	MATEX NET PVT. LTD.	DELHI
2591.	MATRIX LABORATORIES LTD.	HYDERABAD
2592.	MATTOX SOLUTIONS	HYDERABAD
2593.	MAVENIR SYSTEMS	BANGALORE
2594.	MAVENIR SYSTEMS	THRISSUR
2595.	MAVERIC SYSTEMS PVT. LTD.	CHENNAI
2596.	MAVERIK VENTURES	NEW DELHI
2597.	MAXIM INDIA INTEGRATED CIRCUIT DESIGN PV	BANGALORE
2598.	MAXIM INTEGRATED INDIA PVT. LTD.	BANGALORE
2599.	MAXIM SMT TECHNOLOGIES PVT. LTD.,	NOIDA
2600.	MAYUR HOSPITAL & RESEARCH CENTRE	INDORE
2601.	MCAFEE SOFTWARE INDIA PVT. LTD.	BANGALORE
2602.	MCAFEE SOFTWARE INDIA PVT. LTD.	PUNE
2603.	MCDERMOTT MIDDLE EAST	DUBAI
2604.	MCNALLY BHARAT ENGINEERING COMPANY LTD.	HOOGHLY
2605.	MECHMATICS ENGINEERING PVT. LTD.	AHMEDABAD
2606.	MEDHA SERVO DRIVES PVT. LTD.	HYDERABAD
2607.	MEDIA LAB ASIA	DELHI
2608.	MEERA & COMPANY LTD.	BATHINDA
2609.	MEERA & COMPANY LTD.	LUDHIANA
2610.	MEGA RUBBER TECHNOLOGIES PVT. LTD.	MADURAI
2611.	MEGATECH CONTROL FZCO	CHENNAI
2612.	MEGATECH CONTROL LLC	KUNDAPURA
2613.	MEHRO CONSULTANTS	NEW DELHI
2614.	MEMF ETA SWITCH GEAR MANUFACTURING COMPA	COIMBATORE
2615.	MEMF ETA SWITCHGEAR MANUFACTURING COMPAN	BARMER
2616.	MEMF-ETA SWITCHGEAR MANUFACTURING COMPAN	RIYADH
2617.	MEMF-ETA SWITCHGEAR MFG. CO.	SANGLI
2618.	MENTOR GRAPHICS	NOIDA
2619.	MERCEDES BENZ R & D INDIA PVT. LTD.	BANGALORE
2620.	MERCEDES BENZ R&D INDIA	BANGALORE
2621.	MERCEDES BENZ RESEARCH & DEVELOPMENT I	BANGALORE
2622.	MERCEDES-BENZ INDIA PVT. LTD.	KOLKATA
2623.	MERCEDES-BENZ R&D INDIA PVT. LTD.	MYSORE
2624.	MERCEDES-BENZ R&D INDIA PVT. LTD.	PUNE
2625.	MERCEDES-BENZ RESEARCH & DEVELOPMENT I	BANGALORE
2626.	MERCEDES-BENZ RESEARCH & DEVELOPMENT I	CHENNAI
2627.	MERCEDES BENZ RESEARCH&DEVELOPMENT LTD.	BANGALORE
2628.	MERCER	DELHI
2629.	MERIDIUM SERVICES & LABS-INDIA	BANGALORE
2630.	MERRILL LYNCH INDIA TECHNOLOGY SERVICES	CHENNAI
2631.	META CUBE SOFTWARE PVT. LTD.	PUNE

2632.	METACUBE SOFTWARE PVT. LTD.	JAIPUR
2633.	METALSA INDIA PVT. LTD.	SARAIKELA
2634.	METAMINDS SOFTWARE SOLUTIONS LTD.	HYDERABAD
2635.	METEXIM SOURCING PVT.LTD	KANYAKUMARI
2636.	METHODIST CHURCH IN INDIA - ETCM HOSPITA	KOLAR
2637.	METITO (OVERSEAS) LTD.	SHARJAH
2638.	METITO OVERSEAS LTD.	TRICHY
2639.	METRICSTREAM INFOTECH (INDIA) PVT. LTD.	BANGALORE
2640.	METSO AUTOMATION INDIA PVT. LTD.	NAVI MUMBAI
2641.	METTLER TOLEDO INDIA PVT. LTD.	NAVI MUMBAI
2642.	METTLER TOLEDO TURING SOFTWARES	DINDIGUL
2643.	MFORMATION SOFTWARE TECHNOLOGIES PVT. LT	BANGALORE
2644.	MHB FILTER INDIA PVT. LTD.	AKKALKOT
2645.	MICHELIN INDIA TAMILNADU TYRES PVT. LTD.	ARAKKONAM
2646.	MICHELIN INDIA TAMILNADU TYRES PVT. LTD.	CHENNAI
2647.	MICHELIN INDIA TAMILNADU TYRES PVT. LTD.	TIRUCHIRAPPALLI
2648.	MICO BOSCH	BANGALORE
2649.	MICRO LABS LTD.	BANGALORE
2650.	MICROCHIP TECHNOLOGY INC	BANGALORE
2651.	MICROGENESIS CADSOFT PVT. LTD.	BANGALORE
2652.	MICROLAND PVT. LTD.	BANGALORE
2653.	MICROMATIC MACHINE TOOLS PVT. LTD.	COIMBATORE
2654.	MICRON - SINGAPORE	SINGAPORE
2655.	MICRON SEMICONDUCTOR ASIA LTD.	SINGAPORE
2656.	MICRON SEMICONDUCTOR ASIA PTE LTD.	WOODLANDS
2657.	MICROSOFT INDIA R & D PVT. LTD.	BANGALORE
2658.	MICROSOFT INDIA R & D PVT. LTD.	DELHI
2659.	MICROSOFT INDIA R & D PVT. LTD.	HYDERABAD
2660.	MICROSOFT INDIA R & D PVT. LTD.	JAIPUR
2661.	MIDAS COMMUNICATION TECHNOLOGIES	CHENNAI
2662.	MIDDLEBY INDIA ENGINEERING PVT. LTD.	BANGALORE
2663.	MIDDLEBY INDIA ENGINEERING PVT. LTD.	KAIWARA
2664.	MIDDLEEAST PRESTRESSING LLC	TIRUNELVELI
2665.	MIDEAST DATA SYSTEM-PACC	DUBAI
2666.	MIL CONTROLS LTD.	THIRUVANANTHAPURAM
2667.	MILLENNIUM TECHNOSOFT LTD.	HYDERABAD
2668.	MINDA FURUKAWA ELECTRIC PVT. LTD.	KALKA
2669.	MINDA FURUKAWA ELECTRIC PVT. LTD.	NARNAUL
2670.	MINDA INDUSTRIES LTD.	PUNE
2671.	MINDA SILCA ENGG. LTD.	KARNAL
2672.	MINDA STONE RIDGE INSTRUMENTS LTD.	PUNE
2673.	MINDARIKA PVT. LTD.	CHENNAI
2674.	MINDARIKA PVT. LTD.	GURGAON
2675.	MINDFIRE SOLUTIONS	CUTTACK
2676.	MINDSPEED TECHNOLOGIES PVT. LTD.	HYDERABAD
2677.	MINDSQUARE TECHNOLOGIES (INDIA) PVT. LIM	BANGALORE
2678.	MINDTECK INDIA LTD.	BANGALORE
2679.	MINDTREE LTD.	BANGALORE
2680.	MINDTREE LTD.	CHENNAI
2681.	MINDTREE LTD.	COCHIN
2682.	MINDTREE LTD.	DHARWAD
2683.	MINDTREE LTD.	JAMKHANDI
2684.	MINDTREE LTD.	PUNE
2685.	MINDTREE LTD.	SALEM
2686.	MINDTREE LTD.	URAPAKKAM

2687.	MINDTREE LTD.	VRIDHACHALAM
2688.	MINISTRY OF DEFENCE, GOVT OF INDIA	NEW DELHI
2689.	MINISTRY OF DEFENCE,CORPS OF SIGNALS	MHOW
2690.	MINISTRY OF HIGHER EDUCATION, SAU	LUCKNOW
2691.	MIRAFRA TECHNOLOGIES PVT. LTD.	HISAR
2692.	MIRC ELECTRONICS LTD.	NAVI MUMBAI
2693.	MISTRAL SOLUTIONS PVT. LTD.	BANGALORE
2694.	MISYS SOFTWARE SOLUTIONS (INDIA) PVT. LT	BANGALORE
2695.	mitsui elastomers singapore pvt. ltd.	PARAMAKUDI
2696.	MIZORAM STATE E-GOVERNANCE SOCIETY	AIZAWL
2697.	MOBAX NETWORKS PVT. LTD.	COIMBATORE
2698.	MOBILY INFOTECH INDIA PVT. LTD.	SALEM
2699.	MODEL INSTITUE OF ENGG & TECHNOLOGY	JAMMU
2700.	MODEL INSTITUTE OF ENGINEERING & TECHNOL	JAMMU
2701.	MODERN GULF TECHNICAL TRADING & CONTRACT	RUWI
2702.	MODERN METAL CRAFTS	HYDERABAD
2703.	MODERN REFRIGERATION SERVICES, SANGLI	SANGLI
2704.	MODINE THERMAL SYSTEM	CHENNAI
2705.	MODULAR INFOTECH PVT. LTD.	PUNE
2706.	MODULAR MINING SYSTEMS	PUNE
2707.	MOHINDRA FASTENERS LTD.	FARIDABAD
2708.	MOJJ ENGINEERING SYSTEMS LTD.	NASIK
2709.	MOLEX INDIA PVT,LTD	KANNUR
2710.	MOLEX INDIA PVT. LTD.	BANGALORE
2711.	MOLEX INDIA PVT. LTD.	CHENNAI
2712.	MONARCH INNOVATIVE TECHNOLOGIES PVT. LTD.	MUMBAI
2713.	MOSER BAER INDIA LTD.	GREATER NOIDA
2714.	MOTHERHOOD HOSPITALS CHENNAI	CHENNAI
2715.	MOTHERSON AUTOMOTIVE ELASTOMERS TECHNOLO	CHENNAI
2716.	MOTHERSONSUMI INFOTECH & DESIGNS LTD.	KURNOOL
2717.	MOTOROLA MOBILITY INDIA PVT. LTD.	CALICUT
2718.	MOTOROLA SOLUTIONS	BANGALORE
2719.	MOTOROLA SOLUTIONS INDIA PVT. LTD.	BANGALORE
2720.	MOTOROLA SOLUTIONS, INC	BANGALORE
2721.	MOTT MACDONALD LLC	ABU DHABI
2722.	MOTT MACDONALD, ABU DHABI,	ABU DHABI
2723.	MPHASIC AN HP COMPANY	AHMEDABAD
2724.	MPHASIC AN HP COMPANY	BANGALORE
2725.	MPHASIC AN HP COMPANY	CHENNAI
2726.	MPHASIC AN HP COMPANY	DHARMAPURI
2727.	MPHASIC AN HP COMPANY	KANNUR
2728.	MPHASIC AN HP COMPANY	PUNE
2729.	MPHASIC AN HP COMPANY	WARANGAL
2730.	MPS LTD.	CHENNAI
2731.	MPS LTD.	DELHI
2732.	MRF LTD.	CHENNAI
2733.	MRF LTD.	MEDAK
2734.	MRV INFOTECH INDIA PVT. LTD.	CHENNAI
2735.	MS MAHINDRA SATYAM	BANGALORE
2736.	MS TECHNOLOGY PVT. LTD.	NEW DELHI
2737.	MSCRIPTS SYSTEMS INDIA PVT. LTD.	TUMKUR
2738.	MTANDT PVT. LTD.	CHENNAI
2739.	MU SIGMA BUSINESS SOLUTIONS PVT. LTD.	BANGALORE
2740.	MUHARRAQ STP BSC., BAHRAIN	TRICHY
2741.	MUKAND LTD.	NAVI MUMBAI

2742.	MURUGAPPA MORGAN THERMAL CERAMICS LTD.	CHENNAI
2743.	MURUGAPPA MORGAN THERMAL CERAMICS LTD.	GANDHINAGAR
2744.	MUSANDUM INTERNATIONAL GEN. TRD. LLC	SHARJAH
2745.	MUSASHI AUTO PARTS	HINDUPUR
2746.	MUSASHI AUTO PARTS INDIA PVT. LTD.	MYSORE
2747.	MWH RESOURCENET INDIA PVT. LTD.	CHENNAI
2748.	MYLAN LABORATORIES LTD.	HYDERABAD
2749.	MYOUNG SHIN INDIA AUTOMOTIVE PVT. LTD.	CHENNAI
2750.	MYSMARTPRICE WEB TECHNOLOGY PVT. LTD.	SIDDIPET
2751.	MYSORE MEDICAL COLLEGE & RESEARCH INST.	MYSORE
2752.	MZOUN MECHANICAL SERVICES LLC	DUBAI
2753.	N. B. TECHNOLOGIES	PUNE
2754.	NAC GROUP	AURANGABAD
2755.	NAFFCO ELECTRO MECHANICAL.,	ABU DHABI
2756.	NAFFCO ELECTROMECHANICAL	ABU DHABI
2757.	NAGARAJUNA OIL CORPORATION LTD.	PUDUCHERRY
2758.	NAGARJUNA OIL CORPORATION LTD.	TRICHY
2759.	NAMA MOTT MACDONALD LLC	ABU DHABI
2760.	NAMA MOTTMACDONALD	ABU DHABI
2761.	NAMO NARAYAN INDUSTRIES	VALANCHERY
2762.	NAPINO AUTO & ELECTRONICS LTD.	FARIDABAD
2763.	NAPINO AUTO & ELECTRONICS LTD.	GURGAON
2764.	NARUS NETWORKS	THIRUVALLUR
2765.	NASCON ENGINEERING LTD.	ABU DHABI
2766.	NATIONAL AEROSPACE LABORATORIES	BANGALORE
2767.	NATIONAL ASSESSEMENT & ACCREDITATION C	BANGALORE
2768.	NATIONAL CENTRAL COOLING COMPANY(TABREED	DUBAI
2769.	NATIONAL CENTRE FOR BIOLOGICAL SCIENCES	BANGALORE
2770.	NATIONAL CONTRACTING COMPANY	ALMUSHRIF
2771.	NATIONAL CONTRACTING COMPANY LTD. (QATAR)	CHENNAI
2772.	NATIONAL COUNCIL OF SCIENCE MUSEUM	KOLKATA
2773.	NATIONAL FERTILIZERS LTD.	PANIPAT
2774.	NATIONAL INFORMATIC CENTRE(NIC), MIZORAM	AIZAWL
2775.	NATIONAL INSTITUTE FOR EMPOWERMENT OF PE	CHENNAI
2776.	NATIONAL INSTITUTE OF ELECTRONICS & IT	KOHIMA
2777.	NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR	IMPHAL
2778.	NATIONAL INSTRUMENTS INDIA PVT. LTD.	GUNTUR
2779.	NATIONAL INSTU. OF OPHTHALMIC SCIENCES	MALAYSIA
2780.	NATIONAL MARINE DREDGING COMPANY	ABU DHABI
2781.	NATIONAL PETROLEUM CONSTRUCTION CO.	ABU DHABI
2782.	NATIONAL REMOTE SENSING CENTRE	SECUNDERABAD
2783.	NAVISTAR INTERNATIONAL PVT. LTD.	SOLAPUR
2784.	NBC BEARINGS (NEI LTD.)	JAIPUR
2785.	NCR CORPORATION	DUBAI
2786.	NCR CORPORATION INDIA PVT. LTD.	GURGAON
2787.	NCR CORPORATION INDIA PVT. LTD.	HYDERABAD
2788.	NCR CORPORATION INDIA PVT. LTD.	PUDUCHERRY
2789.	NDIIT & MGMT.	RAEBARELI
2790.	NDS SERVICES PAY-TV TECHNOLOGY PVT. LTD.	BANGALORE
2791.	NDS SERVICES PAY-TV TECHNOLOGY PVT. LTD.	GUSHKARA
2792.	NE TECHNOLOGIES PVT. LTD.	HYDERABAD
2793.	NEC TECHNOLOGIES INDIA LTD.	NEW DELHI
2794.	NEEL AUTO PVT. LTD.	THIRUVANNAMALAI
2795.	NEEV INFORMATION TECHNOLOGIES	BANGALORE
2796.	NEEV INFORMATION TECHNOLOGIES PVT. LTD.	NANDED

2797.	NELITO SYSTEMS LTD.	DELHI
2798.	NEMAK ALUMINIUM CASTINGS INDIA PVT. LTD.	CHENNAI
2799.	NEMCARE HOSPITAL, GHY, ASSAM	GUWAHATI
2800.	NEO STRUCTO CONSTRUCTION PVT. LTD.	SURAT
2801.	NESH TECNOLOGIES PVT. LTD.	CHENNAI
2802.	NESS SOFTWARE SERVICES PVT. LTD.	BANGALORE
2803.	NESS TECHNOLOGIES	BANGALORE
2804.	NESS TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
2805.	NESS TECHNOLOGIES INDIA PVT. LTD.	CHENNAI
2806.	NEST TECHNOLOGIES LTD.	KOTTAYAM
2807.	NEST TECHNOLOGIES LTD.	MALAPPURAM
2808.	NEST TECHNOLOGIES LTD.	TRIVANDRUM
2809.	NET SOLUTIONS	CHANDIGARH
2810.	NETAPP	BANGALORE
2811.	NETAPP	CHANDOR
2812.	NETAPP INC.	BANGALORE
2813.	NETAPP INDIA	BANGALORE
2814.	NETAPP INDIA PVT. LTD.	BANGALORE
2815.	NETAPP INDIA PVT. LTD.	UDUPI
2816.	NETCRACKER	HYDERABAD
2817.	NETENRICH TECHNOLOGIES	HYDERABAD
2818.	NETSCOUT SYSTEMS	BANGALORE
2819.	NETWOK SYSTEMS & TECHNOLOGIES (P) LTD.	TRIVANDRUM
2820.	NETWORK SYSTEMS & TECHNOLOGIES	KANYAKUMARI
2821.	NETWORK SYSTEMS & TECHNOLOGIES (P) LTD.	KANNUR
2822.	NETWORK SYSTEMS & TECHNOLOGIES (P) LTD.	TRIVANDRUM
2823.	NETWORK SYSTEMS & TECHNOLOGIES PVT. LTD.	COCHIN
2824.	NETWORK SYSTEMS & TECHNOLOGIES PVT. LTD.	KANNUR
2825.	NEURON TECHNOLABS PVT. LTD.	CHANDIGARH
2826.	NEW HOLLAND FIAT INDIA PVT. LTD.	GREATER NOIDA
2827.	NEW LIFE AG CHURCH	CHENNAI
2828.	NEWGEN SOFTWARE TECHNOLOGIES LTD.	DELHI
2829.	NEWGEN SOFTWARE TECHNOLOGIES LTD.	NOIDA
2830.	NEWGEN SOFTWARE TECHNOLOGIES LTD.	PANIPAT
2831.	NEWGEN SOFTWARE TECHNOLOGIES LTD.	PUNE
2832.	NEWTRONIC EQUIPMENT COMPANY PVT. LTD.	MUMBAI
2833.	NEXTEER AUTOMOTIVE INDIA (P) LTD.	BANGALORE
2834.	NEXTEER AUTOMOTIVE INDIA P LTD.	ARAKKONAM
2835.	NEXTEER AUTOMOTIVE SYSTEM	BANGALORE
2836.	NEXTEER AUTOMOTIVES INDIA (P) LTD.	BANGALORE
2837.	NIC MIT GOI	GHAZIABAD
2838.	NICE SOFTWARE SOLUTIONS	NAGPUR
2839.	NIELIT AIZAWL	AIZAWL
2840.	NIELIT KOHIMA	MOKOKCHUNG
2841.	NIHILENT TECHNOLOGIES PVT. LTD.	PUNE
2842.	NIIT TECHNOLOGIES	NEW DELHI
2843.	NIIT, SIWAN	SIWAN
2844.	NIIT-TECHNOLOGIES	FARIDABAD
2845.	NIMBEON INTER TECHNOLOGIES	NAMAKKAL
2846.	NIMBEON INTER TECHNOLOGIES PVT. LTD.	MADURAI
2847.	NIMBLE WIRELESS (PVT) LTD.	CHENNAI
2848.	NISG, UNDER DEPT OF IT, GOVT OF INDIA	GUWAHATI
2849.	NITOR INFOTECH PVT.LTD.	PUNE
2850.	NITYO INFOTECH SERVICES	BANGALORE
2851.	NM TRONICS INDIA PVT. LTD.	DELHI

2852.	NMC SPECIALITY HOSPITAL	ABU DHABI
2853.	NMSWORKS SOFTWARE PVT. LTD.	CHENNAI
2854.	NOETIX SOFTWARE INDIA PVT. LTD.	HYDERABAD
2855.	NOKIA INDIA PVT. LTD.	BANGALORE
2856.	NOKIA INDIA PVT. LTD.	CHENNAI
2857.	NOKIA INDIA PVT. LTD.	KANCHIPURAM
2858.	NOKIA INDIA PVT. LTD.	SALEM
2859.	NOKIA INDIA PVT. LTD.	TIRUVANNAMALAI
2860.	NOKIA SIEMENS NETWORKS INDIA PVT. LTD.	TIRUPUR
2861.	NOKIA SIEMENS NETWORKS LTD.	BANGALORE
2862.	NOKIA SIEMENS NETWORKS PVT. LTD.	BANGALORE
2863.	NOKIA SIEMENS NETWORKS PVT. LTD.	CHENNAI
2864.	NOKIA SIEMENS NETWORKS PVT. LTD.	KOZHICODE
2865.	NOKIA SIEMENS NETWORKS PVT. LTD.	PAYYANNUR
2866.	NOKIA SIEMENSNETWORKS PVT. LTD.	BANGALORE
2867.	NOKIA SOLUTIONS & NETWORKS	BANGALORE
2868.	NOKIA SOLUTIONS & NETWORKS PVT. LTD.	ANANTAPUR
2869.	NOKIA SOULUTIONS & NETWORKS INDIA PVT.	BANGALORE
2870.	NOTIONINK DESIGN LABS PVT. LTD.	GWALIOR
2871.	NOVA INTEGRATED SYSTEMS LTD., A TATA	HYDERABAD
2872.	NOVA MEDICAL CENTERS PVT. LTD.	BANGALORE
2873.	NOVATEUR ELECTRICAL & DIGITAL SYSTEMS PV	CHENNAI
2874.	NOVATIUM SOLUTIONS PVT. LTD.	CHENNAI
2875.	NOVELL SOFTWARE DEVELOPMENT (I) PVT. LTD.	BANGALORE
2876.	NOVELL SOFTWARE DEVELOPMENT (INDIA) PVT.	BANGALORE
2877.	NOVELL SOFTWARE DEVELOPMENT INDIA PVT. LT	PANSKURA
2878.	NOVELLUS SYSTEMS (INDIA) PVT. LTD.	BANGALORE
2879.	NOVELLUS SYSTEMS INDIA PVT. LTD.	BANGALORE
2880.	NOVITAS PLAST PVT. LTD.	INDORE
2881.	NPCC	ABU DHABI
2882.	NPCC, ABU DHABI	ABU DHABI
2883.	NPCIL	MUMBAI
2884.	NPCIL	RAWATBHATA
2885.	NRB INDUSTRIAL BEARINGS LTD.	NAVI MUMBAI
2886.	NSL SEZ HYD PVT. LTD.	HYDERABAD
2887.	NTPC LTD.	CHENNAI
2888.	NTPC LTD.	RAEBARELI
2889.	NTPC-BHEL POWER PROJECTS PVT. LTD.	TIRUPATI
2890.	NTT DATA	BANGALORE
2891.	NTT DATA ( FORMERLY KEANE INDIA)	BANGALORE
2892.	NTT DATA EAS PVT. LTD.	BANGALORE
2893.	NTT DATA GDS	JAGITIAL
2894.	NTT DATA GLOBAL DELIVERY SERVICES LTD.	BANGALORE
2895.	NTT DATA GLOBAL DELIVERY SERVICES LTD.	TRICHY
2896.	NTT DATA GLOBAL TECHNOLOGY SERVICES PVT.LTD.	PUNE
2897.	NTT DATA PVT. LTD.	TIRUNELVELI
2898.	NTTF AT RD TATA TECHNICAL EDUCATION CENT	JAMSHEDPUR
2899.	NTTF INDUSTRIES PVT. LTD.,	HOSUR
2900.	NUCLEAR POWER CORPORATION OF INDIA LTD.	KARWAR
2901.	NUCLEUS GROUP	SECUNDERABAD
2902.	NUCLEUS SOFTWARE EXPORTS LTD.	HAPUR
2903.	NUCLEUS SOFTWARE EXPORTS LTD.	NEW DELHI
2904.	NUCLEUZ TECHNOLOGIES	ERNAKULAM
2905.	NUVENTO SYSTEMS PVT. LTD.	BANGALORE
2906.	NVIDIA GRAPHICS PVT. LTD.	BANGALORE

2907.	NVIDIA GRAPHICS PVT. LTD.	PUNE
2908.	NVIDIA GRAPHICS PVT. LTD.	SANGAMNER
2909.	O/E/N INDIA LTD.	MUVATTUPUZHA
2910.	O/E/N INDIA LTD.	NILAMBUR
2911.	OAT SYSTEMS SIPL	BANGALORE
2912.	OEN INDIA LTD.	TRIVANDRUM
2913.	OERLIKON BALZERS COATING INDIA PVT. L	CHENNAI
2914.	OFFICE OF H.H THE CROWN PRINCE OF DUBAI	DUBAI
2915.	OFFSHORE DEVELOPMENT CENTER (BANGALORE)	BANGALORE
2916.	OHMS TECH ENGINEERS	TRICHY
2917.	OILFIELDS SUPPLY CENTER	DUBAI
2918.	OK PLAY AUTO PVT. LTD.	KANCHIPURAM
2919.	OKI EUROPE LTD.	DUBAI
2920.	OLD MITTAL HOSPITAL	AJMER
2921.	OLIVE GROUP INDIA PVT. LTD.	NEW DELHI
2922.	OMAN AIRPORT MANGEMENT CO.	MUSCAT
2923.	OMAN FIBER OPTIC CO S.A.O.G	MADURAI
2924.	OMAN FIBER OPTIC CO. S.A.O.G	CHENNAI
2925.	OMAN FIBER OPTIC CO. S.A.O.G.	MUSCAT
2926.	OMAN FIBER OPTIC CO.S.A.O.G	TIRUNELVELI
2927.	OMAN FIBER OPTICS CO S.A.O.G	KUMBAKONAM
2928.	OMAX AUTO LTD.	LUCKNOW
2929.	OMEGA CUBE TECHSYSTEMS PVT.LTD.	MYSORE
2930.	OMNEX INDIA PVT. LTD.	CHENNAI
2931.	ONE97 COMMUNICATIONS LTD.	DELHI
2932.	ONLINE PRODUCTIVITY SOLUTIONS PVT. LTD.	MARGAO
2933.	ONTOS INFORMATION SYSTEMS PVT. LTD.	JAIPUR
2934.	OPEN ACCESS TECHNOLOGY INDIA PVT. LTD.	CHANDIGARH
2935.	OPENSOURCE SOFTWARE SOLUTIONS LLP	HYDERABAD
2936.	OPERATIONAL ENERGY GROUP INDIA PVT.LTD	CHENNAI
2937.	OPERATIONAL ENERGY GROUPS INDIA PVT. LTD.	CUDDALORE
2938.	OPTIMIZORY TECHNOLOGIES PVT. LTD.	KOTA
2939.	OPTIMUS GENERICS LTD.	JADCHERLA
2940.	OPUS SOFTWARE SOLUTION LTD.	PUNE
2941.	ORACLE INDIA PVT. LTD.	BANGALORE
2942.	ORACLE INDIA PVT. LTD.	CHENNAI
2943.	ORACLE INDIA PVT. LTD.	DELHI
2944.	ORACLE INDIA PVT. LTD.	ERNAKULAM
2945.	ORACLE INDIA PVT. LTD.	GHAZIABAD
2946.	ORACLE INDIA PVT. LTD.	GURGAON
2947.	ORACLE INDIA PVT. LTD.	HYDERABAD
2948.	ORACLE INDIA PVT. LTD.	KARUR
2949.	ORACLE INDIA PVT. LTD.	MADURAI
2950.	ORACLE INDIA PVT. LTD.	MUMBAI
2951.	ORACLE INDIA PVT. LTD.	MYSORE
2952.	ORACLE INDIA PVT. LTD.	NAGERCOIL
2953.	ORACLE INDIA PVT. LTD.	NOIDA
2954.	ORACLE INDIA PVT. LTD.	PUTTUR
2955.	ORACLE INDIA PVT. LTD.	THIRUVALLA
2956.	ORACLE INDIA PVT. LTD.	TIRUNELVELI
2957.	ORACLE INDIA PVT. LTD.	TRIVANDRUM
2958.	ORACLE INDIA PVT. LTD.	TUMKUR
2959.	ORANGE BUSINESS SERVICES	DELHI
2960.	ORANGE BUSINESS SERVICES	GURGAON
2961.	ORBEES BUSINESS SOLUTIONS	HYDERABAD



2962.	ORBIT TECHNICAL SOLUTIONSPVT LTD.	MOHALI
2963.	ORBITZ INDIA PVT. LTD.	BANGALORE
2964.	ORCA RADIO SYSTEMS PVT. LTD.	BANGALORE
2965.	ORCHID HEALTHCARE	CHENNAI
2966.	ORGA SYSTEMS INDIA PVT. LTD.	COOCH BEHAR
2967.	ORGA SYSTEMS INDIA PVT. LTD.	KOLKATA
2968.	ORIENT ELECTRICALS	FARIDABAD
2969.	ORYX GTL LTD.	DOHA
2970.	ORYX GTL LTD.	RASLAFFAN
2971.	OSI TECHNOLOGIES	BANGALORE
2972.	OSPYN TECHNOLOGIES	TRIVANDRUM
2973.	OTIS ELEVATOR CO INDIA LTD.	JAIPUR
2974.	OTIS ELEVATOR COMPANY I LTD.	BANGALORE
2975.	OTIS ELEVATOR COMPANY(I) LTD.	PUNE
2976.	OTIS ELEVATOR COMPNAY (INDIA) LTD.	BANGALORE
2977.	OUTOTEC INDIA PVT. LTD.	CHINNA KARUMBUR
2978.	OVERSEAS AST CO. LLC	AL QUOZ
2979.	OXIENT TECHNOLOGIES PVT. LTD.	SONEPAT
2980.	OZONE MULTISPECIALITY HOSPITAL& CRITICAL	AKOLA
2981.	P L ENGINEERING LTD.	DELHI
2982.	P.D.HINDUJA NATIONAL HOSPITAL & MRC	MUMBAI
2983.	P3 INDIA CONSULTING INDIA LTD.	BANGALORE
2984.	PACE MICRO TECHNOLOGY	MADURAI
2985.	PACE MICRO TECHNOLOGY INDIA PVT. LTD.	BANGALORE
2986.	PACE MICROTECHNOLOGY(INDIA) PVT. LTD.	BANGALORE
2987.	PACKETVIDEO INDIA PVT. LTD.	JIND
2988.	PALADION NETWORKS PVT. LTD.	BANGALORE
2989.	PALADION NETWORKS PVT. LTD.	NAVI MUMBAI
2990.	PALETLY DESIGNS PVT. LTD.	MUMBAI
2991.	PALI BUILDERS & DEVELOPERS (P) LTD.	KOCHI
2992.	PAN GULF TECHNOLOGIES PVT. LTD.	DOMBIVLI
2993.	PANACEA MEDICAL TECHNOLOGIES PVT. LTD.,	BANGALORE
2994.	PANALFA AUTOELEKTRIK LTD.	GURGAON
2995.	PARAGON DYNAMICS INFO SYSTEMS PVT.LTD	THENI
2996.	PARAMETRIC TECHNOLOGY CORP.	NEW DELHI
2997.	PARAMETRIC TECHNOLOGY CORPORATION	FARIDABAD
2998.	PAREXEL INTERNATIONAL INDIA PVT. LTD.	NEW DELHI
2999.	PARKER HANNIFIN INDIA PVT. LTD.	CHENNAI
3000.	PARKER HANNIFIN INDIA PVT. LTD.	NAVI MUMBAI
3001.	PARKER HANNIFIN INDIA PVT. LTD.	TIRUNELVELI
3002.	PARSONS INTERNATIONAL LTD.	DOHA
3003.	PARSONS INTERNATIONAL LTD.	NAGERCOIL
3004.	PARSONS, INTERNATIONAL LTD.	DOHA
3005.	PARTNERS ONLINE FZCO	DUBAI
3006.	PATEL REALTY INDIA LTD.	THRISSUR
3007.	PATNI COMPUTER SYSTEMS LTD.	BAHADURGARH
3008.	PATNI COMPUTER SYSTEMS LTD.	NAVI MUMBAI
3009.	PATRONS AUTOMATION	CALICUT
3010.	PATSPIN INDIA LTD.	ALUVA
3011.	PAYODA TECHNOLOGIES PVT. LTD.	COIMBATORE
3012.	PAYODA TECHNOLOGIES PVT. LTD.	TIRUPUR
3013.	PAYPAL INDIA PVT. LTD.	BANGALORE
3014.	PAYPAL INDIA PVT. LTD.	CHENNAI
3015.	PEARL INSULATION MATERIAL LLC	DUBAI
3016.	PEERLESS GENERAL FINANCE & INVESTMENT CO	UTTARPARA

3017.	PEGASYSTEMS WORLDWIDE INDIA PVT. LTD.	HYDERABAD
3018.	PENTAIR WATER INDIA LTD.	NEW DELHI
3019.	PENTAIR WATER INDIA PVT. LTD.	SANKHALIM
3020.	PENTAIR WATER INDIA PVT. LTD.,	AHMEDABAD
3021.	PERLOS TELECOMMUNICATION&ELECRONIC COMPO	CHENNAI
3022.	PERNOD RICARD (I) PVT. LTD.	PANCHKULA
3023.	PEROT SYSTEMS	BANGALORE
3024.	PERSISTENT SYSTEMS LTD.	NAGPUR
3025.	PERSISTENT SYSTEMS LTD.	PUNE
3026.	PERSISTENT SYSTEMS LTD.	VERNA
3027.	PESCOBEAM ENVIRONMENTAL SOLUTIONS PVT. LD	CHENNAI
3028.	PETROFAC ENGINEERING	AL KHAN
3029.	PETROFAC ENGINEERING INDIA PVT. LTD.	THANE
3030.	PETROFAC INTERNATIONAL LTD.	CHENNAI
3031.	PETROFAC INTERNATIONAL LTD.	SHARJAH
3032.	PETROFAC INTERNATIONAL LTD.	WEST GODAVARI
3033.	PETROFAC SAUDI ARABIA LTD.	RATNAGIRI
3034.	PETROLEUM DEVELOPMENT OMAN (THRU VINCOTT	CHENNAI
3035.	PFIZER ASIA PACIFIC PTE LTD.,	SINGAPORE
3036.	PHA INDIA PVT. LTD.	KANCHIPURAM
3037.	PHILIPS ELECTRONICS INDIA LTD.	BANGALORE
3038.	PHILIPS ELECTRONICS INDIA LTD.	KANNUR
3039.	PHILIPS HEALTHCARE	BANGALORE
3040.	PHILIPS INDIA LTD.	BANGALORE
3041.	PHILIPS INDIA LTD.	NOIDA
3042.	PHILIPS INDIA LTD.	PUNE
3043.	PHOENIX IT SOLUTIONS LTD.	VISAKHAPATNAM
3044.	PHOTON INFOTECH PVT. LTD.	CHENNAI
3045.	PHOTON INTERACTIVE PVT. LTD.	RAJAPALAYAM
3046.	PHYSICAL RESEARCH LABORATORY	AHMEDABAD
3047.	PIAGGIO VEHICLES PVT. LTD.	BARAMATI
3048.	PIAGGIO VEHICLES PVT. LTD.	PUNE
3049.	PILANI SOFT LABS PVT. LTD. (REDBUS.IN)	HUBLI
3050.	PINELABS PVT. LTD.	NOIDA
3051.	PIT SOLUTIONS PVT. LTD.	NAGERCOIL
3052.	PITNEY BOWES BUSINESS INSIGHT PVT. LTD.	SATNA
3053.	PITNEY BOWES SOFTWARE	NOIDA
3054.	PITNEY BOWES SOFTWARE INDIA	GHAZIABAD
3055.	PITNEY BOWES SOFTWARE INDIA PVT. LTD.	DEHRADUN
3056.	PL ENGINEERNING	GURGAON
3057.	PLANET ENGINEERING DIVISION	DOHA
3058.	PLANOGRAPH TECHNNIQUES	COIMBATORE
3059.	PLANON SOFTWARE SERVICES PVT. LTD.	HYDERABAD
3060.	PLANQUADRAT MIDDLE EAST	DUBAI
3061.	PLANT ELECTRICAL & INSTRUMENTATION PT	SINGAPORE
3062.	PMC PROJECTS (INDIA) PVT. LTD.	SURAT
3063.	PME POWER SOLUTIONS(INDIA)LTD.	CHANDAUJI
3064.	PMI MUMBAI CHAPTER	MUMBAI
3065.	POCLAIN HYDRAULICS	CHENNAI
3066.	POLARIS FINANCIAL TECHNOLOGY	CHENNAI
3067.	POLARIS FINANCIAL TECHNOLOGY LTD.	SALEM
3068.	POLARIS INDIA PVT. LTD.	CHENNAI
3069.	POLARIS SOFTWARE LAB TLD	BANGALORE
3070.	POLARIS SOFTWARE LAB TLD	CHENGALPATTU
3071.	POLARIS SOFTWARE LAB TLD	CHENNAI

3072.	POLARIS SOFTWARE LAB TLD	CUDDALORE
3073.	POLARIS SOFTWARE LAB TLD	PALGHAT
3074.	POLYCOM TECHNOLOGY (R&D) CENTER PVT. LTD.	CHENNAI
3075.	POLYCOM TECHNOLOGY (R&D) CENTER PVT. LTD.	GHAZIABAD
3076.	POLYCOM TECHNOLOGY (R&D) CENTER PVT. LTD.	TIRUPUR
3077.	POLYPLEX CORPORATION LTD.	UDHAM SINGH NAGAR
3078.	PONDICHERRY UNIVERSITY	PUDUCHERRY
3079.	POOJA HOSPITAL	SURAT
3080.	POSOCO (WHOLLY OWNED SUBSIDIARY OF POWERG)	DELHI
3081.	POWER TRANSMISSION CORPORATION OF UTTARA	KOTDWAR
3082.	POWERTECH ENGINEERING LLC	MUSCAT
3083.	POWERWIND LTD.	REWARI
3084.	PP SIMTECH SOLUTIONS LTD.	CHENNAI
3085.	PRA INTL	CHENNAI
3086.	PRAMATI TECHNOLOGIES	CHENNAI
3087.	PRAMATI TECHNOLOGIES	JAIPUR
3088.	PRATHAM SOFTWARE INC.	JAIPUR
3089.	PRATHAM SOFTWARE PVT. LTD.	AGRA
3090.	PRATHMETIX CONSULTANTS PVT. LTD.	NEW DELHI
3091.	PRAVEEN PAPPURI	PUNE
3092.	PRECITEC PRECISION MACHINERIES PVT. LTD.	BANGALORE
3093.	PREMIER EVOLVICS PVT. LTD.	COIMBATORE
3094.	PREMIER PRODUCTION FABRICATORS LLC	RUWI
3095.	PRIANKA INDUSTRIES	DELHI
3096.	PRICEWATERHOUSECOOPERS PVT. LTD.	BANGALORE
3097.	PRICEWATERHOUSECOOPERS PVT. LTD.	ERODE
3098.	PRICEWATERHOUSECOOPERS PVT. LTD.	MUMBAI
3099.	PRICEWATERHOUSECOOPERS PVT. LTD.	PUNE
3100.	PRICOL TECHNOLOGIES	COIMBATORE
3101.	PRIME 4 INSPECTION L.L.C	KARAMA
3102.	PRIME FOCUS TECHNOLOGIES	BANGALORE
3103.	PRIMO AUTOMATION SYSTEMS PVT. LTD.	CHENNAI
3104.	PRINCE ALY KHAN HOSPITAL	MUMBAI
3105.	PRINCESS DURRU SHEHVAR CHILDREN'S & GE	HYDERABAD
3106.	PRINCIPAL GLOBAL SERVICES	PUNE
3107.	PRISM CEMENT LTD.	SATNA
3108.	PRISM SOLUTIONS	CHENNAI
3109.	PRISM SURFACE COATINGS PVT. LTD.	COIMBATORE
3110.	PRODESIGN ENGINEERING SERVICES PVT. LTD.	BANGALORE
3111.	PROFESSIONAL ACCESS PVT. LTD.	BANGALORE
3112.	PROFISOLUTIONS	CHENNAI
3113.	PROGRESS SOFTWARE	HYDERABAD
3114.	PROGRESS SOFTWARE DEV PVT. LTD.	HYDERABAD
3115.	PROGRESSIVE INFOTECH	NEW DELHI
3116.	PROKARMA SOFTECH PVT. LTD.	CHENNAI
3117.	PROKARMA SOFTECH SOLUTIONS PVT. LTD.	CHENNAI
3118.	PROKARMASOFTECH	CHENNAI
3119.	PROLOGIC FIRST INDIA PVT. LTD.	DELHI
3120.	PROMPT ENTERPRISES PVT. LTD.	NEW DELHI
3121.	PROSERV MIDDLE EAST	ALAPPUZHA
3122.	PT. AMTEK PLASTIC BATAM	BATAM
3123.	PTC - PARAMETRIC TECHNOLOGY CORPORATION	GURGAON
3124.	PTC SOFTWARE (INDIA) PVT. LTD.	PUNE
3125.	PUBMATIC INC.	PUNE
3126.	PUBMATIC INDIA PVT. LTD.	PUNE

3127.	PUNJ LLOYD LTD.	ABU DHABI
3128.	PUNJ LLOYD LTD.	GURGAON
3129.	PUNJ LLOYD LTD.	GWALIOR
3130.	PUNJ LLOYD LTD.	PUDUKKOTTAI
3131.	PUNJ LLOYD LTD.	SOMPETA
3132.	PURPLETALK INDIA PVT. LTD.	HYDERABAD
3133.	PUTZMEISTER CONCRETE MACHINES PVT. LTD.	BANGALORE
3134.	PWC SDC, BANGALORE	BANGALORE
3135.	PYRO NETWORKS PVT. LTD.	HYDERABAD
3136.	Q FOCUS ENGINEERING INDIA PVT. LTD.	COIMBATORE
3137.	QA INFOTECH PVT. LTD.	NOIDA
3138.	QAINFOTECH PVT. LTD.	GHAZIABAD
3139.	QATAR ALUMINIUM COMPANY	DOHA
3140.	QATAR ALUMINIUM COMPANY	MESAIEED
3141.	QATAR CHEMICAL COMPANY LTD.	DOHA
3142.	QATAR CHEMICALS COMPANY LTD.	MESAIEED
3143.	QATAR FERTILISER COMPANY	MESAIEED
3144.	QATAR FUEL ADDITIVES COMPANY LTD.	DOHA
3145.	QATAR KENTZ WLL	DOHA
3146.	QATAR PETROLEUM	DOHA
3147.	QATAR PETROLEUM	DUKHAN
3148.	QATAR PETROLEUM DEVELOPMENT CO.LTD.	PUDUCHERRY
3149.	QATAR POWER COMPANY	DOHA
3150.	QATAR SHELL GTL	DOHA
3151.	QATAR SHELL GTL	VELLORE
3152.	QATAR SHELL GTL LTD.	DOHA
3153.	QATAR SHELL GTL,	DOHA
3154.	QATARGAS	AL-KHOR
3155.	QATARGAS	RASLAFFAN
3156.	QBURST TECHNOLOGIES	THRISSUR
3157.	QLOGIC INDIA PVT. LTD.	BANGALORE
3158.	QLOGIC INDIA PVT. LTD.	PUNE
3159.	QSI HEALTHCARE PVT. LTD.	BANGALORE
3160.	QUALCOMM INDIA PVT. LTD.	BANGALORE
3161.	QUALCOMM INDIA PVT. LTD.	HYDERABAD
3162.	QUALCOMM INDIA PVT. LTD.	MADHAPUR
3163.	QUALCOMM INDIA PVT. LTD.	SANTA CLARA
3164.	QUALITY CARE INDIA LTD.	HYDERABAD
3165.	QUALITY ENGINEERING & SOFTWARE TECHNOL	BANGALORE
3166.	QUALITY NEEDLES PVT. LTD.	GHAZIABAD
3167.	QUALITY SYSTEMS INDIA HEALTHCARE	BANGALORE
3168.	QUARKXPRESS PUBLISHING R&D (I) PVT. LTD.	PATIALA
3169.	QUEST GLOBAL	BANGALORE
3170.	QUEST GLOBAL MANUFACTURING PVT. LTD. BELGA	GADAG
3171.	QUEST GLOBAL PVT. LTD.	BANGALORE
3172.	QUINNOX SOLUTION PTE LTD.	SINGAPORE
3173.	QUINSTREET SOFTWARE INDIA PVT. LTD.	PUNE
3174.	QUIPPO VALUERS & AUCTIONEERS PVT. LTD.	KOLKATA
3175.	QUOVANTIS TECHNOLOGIES	DELHI
3176.	QWEST TELECOM SERVICES PVT. LTD.	NOIDA
3177.	R L INSTITUTE OF NAUTICAL SCIENCES	MADURAI
3178.	R SYSTEMS INTERNATIONAL LTD.	GHAZIABAD
3179.	R SYSTEMS INTERNATIONAL LTD.	NOIDA
3180.	RADISYS INDIA PVT. LTD.	BANGALORE
3181.	RAHUL ELECTRONICS	AHMEDABAD

3182.	RAJ NEURO SURGICAL HOSPITAL & TRAUMA CEN	RAJKOT
3183.	RAJA RAMANNA CENTRE FOR ADVANCED TECHNOL	INDORE
3184.	RANDSTAD (ORACLE)	MADURAI
3185.	RANDSTAD INDIA LTD.(ORACLE - CLIENT)	KRISHNAGIRI
3186.	RANDSTAD INDIA PVT. LTD.(ORACLE -	TUMKUR
3187.	RANE (MADRAS) LTD.	KANCHIPURAM
3188.	RANE DIECAST LTD.	TIRUCHIRAPPALLI
3189.	RANE ENGINE VALVE LTD.	CHENNAI
3190.	RANE ENGINE VALVE LTD.	HYDERABAD
3191.	RANE NSK STEERING SYSTEMS LTD.	KANCHIPURAM
3192.	RANE TRW STEERING SYSTEMS LTD.	CHENNAI
3193.	RANE TRW STEERING SYSTEMS LTD.,	VIRALIMALAI
3194.	RANE(MADRAS) LTD.	CHENNAI
3195.	RANGADORE MEMORIAL HOSPITAL	BANGALORE
3196.	RAPID MARINE HVAC(ASIA PACIFIC)PTE LTD.	CHENNAI
3197.	RAS AL HAMARA LLC	AKOLA
3198.	RASGAS COMPANY LTD.	AL KHOR
3199.	RASGAS COMPANY LTD.	DOHA
3200.	RASGAS COMPANY LTD.	RASLAFFAN
3201.	RAVE TECHNOLOGIES PVT. LTD.	MUMBAI
3202.	RAVSFT SOLUTIONS INDIA (P) LTD.	TUTICORIN
3203.	RBS INDIA	CHENNAI
3204.	RBS INDIA DEVELOPMENT CENTER	KARNAL
3205.	RCV INNOVATIONS PVT. LTD.	HYDERABAD
3206.	REACH1TO1 TECHNOLOGIES PVT. LTD.	INDORE
3207.	REALNETWORKS INDIA PVT. LTD.	NEW DELHI
3208.	REC WAFER PTE LTD.	SINGAPORE
3209.	RECKITT BENCKISER (INDIA) LTD.	JAMMU
3210.	RED HAT SOFTWARE SERVICES INDIA PVT. LTD.	AHMEDABAD
3211.	RED HAT SOFTWARE SERVICES INDIA PVT. LTD.	BANGALORE
3212.	RED HAT SOFTWARE SERVICES INDIA PVT. LTD.	COCHIN
3213.	RED HAT SOFTWARE SERVICES INDIA PVT. LTD.	NAVI MUMBAI
3214.	RED HAT SOFTWARE SERVICES INDIA PVT. LTD.	PUNE
3215.	REDEEM SOFTWARE PVT. LTD.	HYDERABAD
3216.	REDSEAL NETWORKS, INC.	BANGALORE
3217.	REGEN POWERTECH PVT. LTD.	CHENNAI
3218.	RELIANCE CEMENT COMPANY PVT. LTD.	NAGPUR
3219.	RELIANCE DIAMOND TOOLS	CHENNAI
3220.	RELIANCE INDUSTRIES LTD.	MUMBAI
3221.	RELIANCE INDUSTRIES LTD.	RAIGAD
3222.	RELIANCE JIO INFOCOMM LTD.	MUMBAI
3223.	RELIANCE PORTS & TERMINALS LTD.	MUMBAI
3224.	RELIANCE TECH SERVICES	HYDERABAD
3225.	RELIANCE TECH SERVICES PVT. LTD.	NAVI MUMBAI
3226.	RELIASFT INDIA PVT. LTD.	NAGAPATTINAM
3227.	RELISYS MEDICAL DEVICES LTD.	HYDERABAD
3228.	RENAULT INDIA PVT. LTD.	CHENNAI
3229.	RENAULT NISSAN AUTOMOTIVE INDIA PVT. LTD.	CHENNAI
3230.	RENAULT NISSAN AUTOMOTIVE INDIA PVT. LTD.	VELLORE
3231.	RENAULT NISSAN AUTOMOTIVE INDIA PVT., LT	ARIYALUR
3232.	RENAULT NISSAN INDIA AUTOMOTIVE PVT. LTD.	CHENNAI
3233.	RENAULT NISSAN TECHNOLOGY & BUSINESS CENTRE	ANANTAPUR
3234.	RENAULT NISSAN TECHNOLOGY & BUSINESS CENTRE	BHIWADI
3235.	RENAULT NISSAN TECHNOLOGY & BUSINESS CENTRE	CHENNAI
3236.	RENAULT NISSAN TECHNOLOGY & BUSINESS CENTRE	MADURAI

3237.	RENAULT NISSAN TECHNOLOGY & BUSINESS CENTRE	THIRUVANNAMALAI
3238.	RENAULT NISSAN TECHNOLOGY & BUSINESS CENTRE	TIRUNELVELI
3239.	RENAULT-NISSAN AUTOMOTIVE INDIA PVT. LTD.	CHENNAI
3240.	RENAULT-NISSAN AUTOMOTIVE INDIA PVT. LTD.	KANCHIPURAM
3241.	RENESAS MOBILE INDIA PVT. LTD.	BANGALORE
3242.	RETTERI SRI KUMARAN HEALTH CENTRE	CHENNAI
3243.	REYAMI ELECTROMECHANICAL (INDIA) PVT. LTD.	ALUVA
3244.	REYAMI ELECTROMECHANICAL (INDIA) PVT. LTD.	KOCHI
3245.	RIALTO ENTERPRISES PVT. LTD.,	CHENNAI
3246.	RICARDO INDIA PVT. LTD.	NEW DELHI
3247.	RICOH INNOVATIONS PVT. LTD.	BANGALORE
3248.	RICOH INNOVATIONS PVT. LTD.	PUNE
3249.	RITTMANMEAD CONSULTING PVT. LTD.,BANGALORE	BANGALORE
3250.	RIVERSAND GLOBAL TECHNOLOGIES PVT. LTD.	BANGALORE
3251.	RMEC PROJECTS LTD.	THIRUKKALUKUNDRAM
3252.	ROAMWARE INDIA PVT. LTD.	BANGALORE
3253.	ROBERT BOSCH ENGINEERING & BUSINESS SO	BANGALORE
3254.	ROBERT BOSCH ENGINEERING & BUSINESS SO	CHENNAI
3255.	ROBERT BOSCH ENGINEERING & BUSINESS SO	COIMBATORE
3256.	ROBERT BOSCH ENGINEERING & BUSINESS SO	KOLLAM
3257.	ROBERT BOSCH ENGINEERING & BUSINESS SO	MADURAI
3258.	ROBERT BOSCH ENGINEERING & BUSINESS SO	MANGALAGIRI
3259.	ROBERT BOSCH ENGINEERING & BUSINESS SO	PALAKKAD
3260.	ROBERT BOSCH ENGINEERING & BUSINESS SO	SALEM
3261.	ROBERT BOSCH ENGINEERING & BUSINESS SO	THIRUVANANTHAPURAM
3262.	ROBERT BOSCH ENGINEERING & BUSINESS SO	TIRUPUR
3263.	ROBERT BOSCH ENGINEERING & BUSINESS SO	TRIVANDRUM
3264.	ROBERT BOSCH ENGINEERING & BUSINESS SO	TUMKUR
3265.	ROBERT BOSCH ENGINEERING & BUSINESS SO	VISAKHAPATNAM
3266.	ROBERT BOSCH ENGINEERING & BUSINESS SO	WEST GODAVARI
3267.	ROCKWELL AUTOMATION EUROPE BV	ABU DHABI
3268.	ROCKWELL AUTOMATION INDIA PVT. LTD.	CHENNAI
3269.	ROCKWELL AUTOMATION INDIA PVT. LTD.	GHAZIABAD
3270.	ROCKWELL AUTOMATION INDIA PVT. LTD.	THANE
3271.	ROCKWELL AUTOMATION INDIA PVT. LTD.	VADODARA
3272.	ROCKWELL COLLINS INDIA ENTERPRISE PVT. LTD.	ELURU
3273.	ROCKWELL COLLINS INDIA ENTERPRISE PVT. LTD.	HYDERABAD
3274.	ROCKWELL COLLINS INDIA ENTERPRISE PVT. LTD.	SECUNDERABAD
3275.	ROHDE & SCHWARZ EMIRATES LLC	ABU DHABI
3276.	ROHM & HAAS INDIA PVT. LTD.	CHENNAI
3277.	ROLLS ROYCE MARINE INDIA	MUMBAI
3278.	ROOTS INDUSTRIES INDIA LTD.	COIMBATORE
3279.	ROOTS INDUSTRIES INDIA LTD.	UDUMALPET
3280.	ROSA POWER SUPPLY COMPANY LTD.	KEONJHAR
3281.	ROSEN MIDDLE EAST FZE	DUBAI
3282.	ROSTI TECHNICAL PLASTICS (I) PVT.LTD	CHENNAI
3283.	ROYAL BANK OF SCOTLAND	MADURAI
3284.	ROYAL BANK OF SCOTLAND INDIA	GURGAON
3285.	ROYAL COURT AFFAIRS	MUSCAT
3286.	ROYAL ENFIELD MOTORS LTD.	CHENNAI
3287.	ROYAL ENFIELD MOTORS LTD.	DINDIGUL
3288.	ROYAL ENFIELD MOTORS LTD.	ERODE
3289.	ROYAL ENFIELD MOTORS LTD.	SALEM
3290.	RSB TRANSMISSION (I) LTD.	PANTNAGAR
3291.	RUBAN EMERGENCY HOSPITAL	PATNA

3292.	RUBY ON RAILS PVT. LTD.	TRIVANDRUM
3293.	S M AUTO ENGINEERING PVT. LTD.	PUNE
3294.	S&P CAPITAL IQ	FARIDABAD
3295.	S&P CAPITAL IQ	GURGAON
3296.	S&P CAPITAL IQ	NEW DELHI
3297.	S1 SERVICES INDIA PVT. LTD.	PUNE
3298.	S2 INFOTECH PVT. LTD.	NEW DELHI
3299.	SABA SOFTWARE INDIA PVT. LTD.	MUMBAI
3300.	SABAR INSTITUTE OF TECHNOLOGY FOR GIRLS	GANDHINAGAR
3301.	SABRE HOLDINGS	BANGALORE
3302.	SABRE HOLDINGS	DHARMAPURI
3303.	SAFARI COMPANY (KAIA)	KASARAGOD
3304.	SAFENET INFOTECH PVT. LTD.	NEW DELHI
3305.	SAFENET INFOTECH PVT. LTD.	NOIDA
3306.	SAFRAN ENGINEERING SERVICES INDIA LTD.	BANGALORE
3307.	SAFRAN ENGINEERING SERVICES INDIA PVT. LTD.	COIMBATORE
3308.	SAHAJANAND LASER TECHNOLOGY LTD.	AHMEDABAD
3309.	SAHARA NEXT	CHENNAI
3310.	SAHYADRI NARAYANA MULTISPECIALITY HOSPITAL	SHIMOGA
3311.	SAINT GOBAIN GLASS INDIA LTD.	SRIPERUMBUDUR
3312.	SAINT-GOBAIN GLASS INDIA LTD.	CHENNAI
3313.	SAINT-GOBAIN GLASS INDIA LTD.	PATHANKOT
3314.	SAINT-GOBAIN GYPROC EMIRATES INDUSTRIES	ABU DHABI
3315.	SAINT-GOBAIN PAM	THANE
3316.	SAIPEM	ABU DHABI
3317.	SAIPEM	CHENNAI
3318.	SAIPEM ENGINEERING	SHARJAH
3319.	SAIPEM INDIA PROJECTS	CHENNAI
3320.	SAIPEM S.P.A (A SUBSIDIARY OF ENI)	INDORE
3321.	SAIPEM SHARJAH ENGINEERING	SHARJAH
3322.	SAIPEM SPA	CHENNAI
3323.	SAIPEM SPA	SHARJAH
3324.	SAMBODHI RESEARCH & COMMUNICATION PVT.LTD.	NEW DELHI
3325.	SAME DEUTZ FAHR INDIA (P) LTD.	CUDDALORE
3326.	SAME DEUTZ FAHR INDIA P LTD.	NAGAPATTINAM
3327.	SAMIN TEKMINZ INDIA PVT. LTD.	NEW DELHI
3328.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	ALLAHABAD
3329.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	AMBALA
3330.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	BALASORE
3331.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	BANGALORE
3332.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	BULANDSHAHR
3333.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	CHENNAI
3334.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	DEHRADUN
3335.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	DELHI
3336.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	GHAZIABAD
3337.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	GURGAON
3338.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	HANSI
3339.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	HARDOI
3340.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	JAIPUR
3341.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	KARIMNAGAR
3342.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	KOLKATA
3343.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	NEW DELHI
3344.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	NOIDA
3345.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	PATIALA
3346.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	ROHTAK

3347.	SAMSUNG INDIA ELECTRONICS PVT. LTD.	SONEPAT
3348.	SAMSUNG INDIA SOFTWARE OPERATIONS PVT. LTD.	AMBUR
3349.	SAMSUNG INDIA SOFTWARE OPERATIONS PVT. LTD.	BANGALORE
3350.	SAMSUNG INDIA SOFTWARE OPERATIONS PVT. LTD.	MYSORE
3351.	SAMSUNG R&D INSTITUTE	AMRITSAR
3352.	SAMSUNG R&D INSTITUTE	BANGALORE
3353.	SAMSUNG R&D INSTITUTE	CHANDIGARH
3354.	SAMSUNG R&D INSTITUTE	DELHI
3355.	SAMSUNG R&D INSTITUTE	GHAZIABAD
3356.	SAMSUNG R&D INSTITUTE	NEW DELHI
3357.	SAMSUNG R&D INSTITUTE	NOIDA
3358.	SAMSUNG R&D INSTITUTE	PRAKASAM
3359.	SAMSUNG R&D INSTITUTE	SONEPAT
3360.	SAMSUNG R&D INSTITUTE	SONIPAT
3361.	SAMSUNG R&D INSTITUTE	SRIGANGANAGAR
3362.	SAMVITH TECHNOLOGIES	BANGALORE
3363.	SAN ENGINEERING & LOCOMOTIVE CO. LTD.	BANGALORE
3364.	SANDVIK ASIA PVT. LTD.	PUNE
3365.	SANDVIK ASIA PVT. LTD.	VIJAYAWADA
3366.	SANDVIK MIDDLE EAST FZE	DUBAI
3367.	SANDVINE TECHNOLOGIES (INDIA) PVT. LTD.	BANGALORE
3368.	SANKARA NETHRALAYA	CHENNAI
3369.	SANMAR FOUNDRIES LTD.	COIMBATORE
3370.	SANMINA-SCI TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
3371.	SANMINA-SCI TECHNOLOGIES INDIA PVT. LTD.	CHENNAI
3372.	SANT PARMANAND HOSPITAL	DELHI
3373.	SANVIENS INFRATECH PVT.	GHAZIABAD
3374.	SAP LABS INDIA PVT. LTD.	BANGALORE
3375.	SAP LABS INDIA PVT. LTD.	FARIDABAD
3376.	SAP LABS INDIA PVT. LTD.	TRIVANDRUM
3377.	SAPIENT CONSULTING PVT. LTD.	BANGALORE
3378.	SAPIENT CONSULTING PVT. LTD.	DELHI
3379.	SAPIENT CONSULTING PVT. LTD.	GHAZIABAD
3380.	SAPIENT CONSULTING PVT. LTD.	GURGAON
3381.	SAPIENT CONSULTING PVT. LTD.	JAIPUR
3382.	SAPIENT CONSULTING PVT. LTD.	MYSORE
3383.	SAPIENT CONSULTING PVT. LTD.	PONDICHERRY
3384.	SAPIENT CONSULTING PVT. LTD.	PULIYANGUDI
3385.	SAPIENT CORPORATION	CHENNAI
3386.	SAPIENT CORPORATION	HUBLI
3387.	SARTORIUS MECHATRONICS INDIA PVT. LTD.	BANGALORE
3388.	SAS R&D INDIA PVT. LTD.	PUNE
3389.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	AHMEDNAGAR
3390.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	BANGALORE
3391.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	HOSUR
3392.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	KARIMGANJ
3393.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	KOLAR
3394.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	MAYILADUTHURAI
3395.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	TRIVANDRUM
3396.	SATYAM COMPUTER SERVICES LTD.	BANGALORE
3397.	SATYAM COMPUTER SERVICES LTD.	CHENNAI
3398.	SATYAM COMPUTER SERVICES LTD.	HYDERABAD
3399.	SATYAM COMPUTER SERVICES LTD.	KANCHIPURAM
3400.	SATYAM COMPUTERS SERVICE LTD.	BANGALORE
3401.	SATYAM VENTURE ENGINEERING SERVICES	SECUNDERABAD



3402.	SATYAM VENTURES ENGINEERING SERVICES	CHENNAI
3403.	SAUDI ARABIAN OIL COMPANY	KANCHIPURAM
3404.	SAUDI IRON & STEEL CO.	DURG
3405.	SAUDI IRON & STEEL CO.	KOLHAPUR
3406.	SAUJAS TECHNOLOGY SOLUTIONS PVT. LTD.	PUNE
3407.	SAVITRI PACKAGING INDS (P) LTD.	GREATER NOIDA
3408.	SAYED HAMID BEHBEHANI & SONS CO	MUMBAI
3409.	SAYED HAMID BEHBEHANI & SONS CO.W.L.L.	TUTICORIN
3410.	SCHILLER HEALTHCARE INDIA PVT. LTD.	PUDUCHERRY
3411.	SCHLUMBERGER GLOBAL SUPPORT CENTRE LTD.	PUNE
3412.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	BANGALORE
3413.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	CHENNAI
3414.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	DUBAI
3415.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	HOSUR
3416.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	HYDERABAD
3417.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	KANCHIPURAM
3418.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	MUSAFFAH
3419.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	NASHIK
3420.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	SALEM
3421.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	SECUNDERABAD
3422.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	SIVAGANGAI
3423.	SCHNEIDER ELECTRIC INDIA PVT. LTD.	VADODARA
3424.	SCHOTT GLASS INDIA PVT. LTD.	VADODARA
3425.	SCHUF SPECIALITY VALVES INDIA PVT. LTD.	COIMBATORE
3426.	SCHWING STETTER INDIA PVT. LTD.	CHENNAI
3427.	SCHWING STETTER INDIA PVT. LTD.	KRISHNAGIRI
3428.	SCIENTECHNIC	DUBAI
3429.	SCIPCO O&M LTD.	RUWAIS
3430.	SCISSOR PAPER STONE WEB SOLUTIONS PVT. LTD.	CHENNAI
3431.	SCIT LTD.	INDORE
3432.	SCOPE INTERNATIONAL	ARIYALUR
3433.	SCOPE INTERNATIONAL	CHENNAI
3434.	SCOPE INTERNATIONAL	NAMAKKAL
3435.	SCOPE INTERNATIONAL	TRICHY
3436.	SD MIDDLE EAST LLC	HYDERABAD
3437.	SDL TECHNOLOGIES	BANGALORE
3438.	SEA & LAND DRILLING CONTRACTORS INC.	THANE
3439.	SEARS INDIA IT & MANAGEMENT SERVICES	PUNE
3440.	SECURE ENERGY SERVICES LTD.,	GURGAON
3441.	SECURE METERS LTD.	UDAIPUR
3442.	SECURE METERS LTD. UDAIPUR	UDAIPUR
3443.	SECURITY TECH ENTERPRISES	NALASOPARA
3444.	SELECTIVA SYSTEMS, INC	BANGALORE
3445.	SELF EMPLOYED	KOLKATA
3446.	SELLA SYNERGY INDIA PVT. LTD.	CHENNAI
3447.	SEMBCORP SALALAH O&M SERVICES COMPANY	SALALAH
3448.	SEMCO ELECTRICAL PVT. LTD.	AHMEDNAGAR
3449.	SEMIFI INTEGRATED TECHNOLOGIES	BANGALORE
3450.	SEMILON TECHNOLOGIES PVT. LTD.	TRIVANDRUM
3451.	SENERGY INTELLUTIONS PVT. LTD.	NAVI MUMBAI
3452.	SEN-SEI TECHNOLOGIES	BANGALORE
3453.	SERIA APPLIED RESEARCH PVT. LTD.	KANNUR
3454.	SERVOMAX INDIA LIMITED	HYDERABAD
3455.	SESA GOA LTD.	SANQUELIM
3456.	SESAB INTERNATIONAL FOR INDUSTRY & CONTR	JEDDAH

3457.	SESHADRIPURAM FIRST GRADE COLLEGE	BANGALORE
3458.	SEVEN SEAS COMPUTERS LLC	DUBAI
3459.	SGC SERVICES PVT. LTD.	CHENNAI
3460.	SGS INDIA PVT. LTD.	CUTTACK
3461.	SGS INDIA PVT.LTD.	GURGAON
3462.	SGS INSPECTION SERVICES SAUDI ARABIA LTD.	THOOTHUKUDI
3463.	SHAKTHI CONCRETE INDUSTRIES	SECUNDERABAD
3464.	SHARP SOFTWARE DEVELOPMENT INDIA	BANGALORE
3465.	SHARPGURUS SOFTWARE SOLUTIONS PVT. LTD.	HYDERABAD
3466.	SHELL EASTERN PETROLEUM PTE LTD.	SINGAPORE
3467.	SHIPNET SOFTWARE SOLUTIONS PVT. LTD.	CHENNAI
3468.	SHIVPAD ENGINEERS PVT. LTD.	SALEM
3469.	SHREE BAJARANGDASBAPA AROGYADHAM	RAJKOT
3470.	SHREE CEMENT LTD.	L JAIPUR
3471.	SHREE MALLINATH HOSPITAL	BIKANER
3472.	SHREETECH ENGINEERING	YAMUNANAGAR
3473.	SHRI RAM PISTONS & RINGS LTD.	MORADABAD
3474.	SHRI. B.D MEHTA MAHAVIR HEART INSTITUTE	SURAT
3475.	SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARC	GHAZIABAD
3476.	SHRIRAM PISTONS & RINGS LTD.	BHIWADI
3477.	SHRIRAM PISTONS & RINGS LTD.	BHIWADI
3478.	SHRIRAM PISTONS & RINGS LTD.	GHAZIABAD
3479.	SHRIRAM PISTONS & RINGS LTD.	GURGAON
3480.	SHRIRAM PISTONS & RINGS LTD.	HOSHIARPUR
3481.	SHRIRAM PROPERTIES LTD.	BANGALORE
3482.	SHUWEIHAT CMS INTERNATIONAL POWER COMPANY	ABU DHABI
3483.	SHUWEIHAT O&M LTD.	RUWAIS
3484.	SIBRIDGE TECHNOLOGIES PVT. LTD.	AHMEDABAD
3485.	SIBRIDGE TECHNOLOGIES PVT. LTD.	DUNGARPUR
3486.	SICAME INDIA CONNECTORS PVT. LTD.	KANCHIPURAM
3487.	SICK INDIA PVT. LTD.	PUNE
3488.	SIEMENS IC SG EA EDSOL (DMS)	ABU DHABI
3489.	SIEMENS INDUSTRY SOFTWARE INDIA PVT. LTD.	PUNE
3490.	SIEMENS INDUSTRY SOFTWARE(INDIA) PVT.	BANGALORE
3491.	SIEMENS INFO SYSTEMS LTD.	BANGALORE
3492.	SIEMENS INFORMATION SYSTEMS	BANGALORE
3493.	SIEMENS INFORMATION SYSTEMS LTD.	CHENNAI
3494.	SIEMENS IT SOLUTIONS & SERVICES PVT. LTD.	DELHI
3495.	SIEMENS LLC	ABU DHABI
3496.	SIEMENS LTD.	AURANGABAD
3497.	SIEMENS LTD.	CHENNAI
3498.	SIEMENS LTD.	KOLKATA
3499.	SIEMENS LTD.	MADGAON
3500.	SIEMENS LTD.	MUMBAI
3501.	SIEMENS LTD.	NAVI MUMBAI
3502.	SIEMENS LTD.	NEW DELHI
3503.	SIEMENS LTD.	PONDA
3504.	SIEMENS LTD.	THANE
3505.	SIEMENS LTD.	UTTARPARA
3506.	SIEMENS PLM SOFTWARE	PUNE
3507.	SIEMENS POWER ENGINEERING PVT. LTD.	GHAZIABAD
3508.	SIEMENS PTE LTD.	SINGAPORE
3509.	SIEMENS TECHNOLOGY & SERVICES PVT.	CHENNAI
3510.	SIEMENS TECHNOLOGY & SERVICES PVT. LTD.	BANGALORE
3511.	SIEMENS TECHNOLOGY & SERVICES PVT. LTD.	PUNE

3512.	SIERRA ATLANTIC SOFTWARE SERVICES LTD.	CHENNAI
3513.	SIFY TECHNOLOGIES LTD.	CHENNAI
3514.	SIFY TECHNOLOGIES LTD.	JAIPUR
3515.	SIFY TECHNOLOGIES LTD.	NAGAPATTINAM
3516.	SIFY TECHNOLOGIES LTD.	NEW DELHI
3517.	SIGMA FREUDENBERG NOK	GURGAON
3518.	SIGMALINE TRANSPORTS	DUBAI
3519.	SIGNAL & TELECOMMUNICATION WORKSHOP	COIMBATORE
3520.	SIGNODE INDIA LTD.	SILVASSA
3521.	SILICUS TECHNOLOGIES	PUNE
3522.	SILTRONIC SINGAPORE PTE LTD.	TAMPINES
3523.	SILVERTECH MIDDLE EAST FZCO	CHENNAI
3524.	SILVERTECH MIDDLE EAST FZCO	COIMBATORE
3525.	SILVERTECH MIDDLE EAST, JABEL ALI DUBAI	DUBAI
3526.	SINGHANIA UNIVERSITY	PILANI
3527.	SINGTEL GLOBAL INDIA PVT. LTD.	FARIDABAD
3528.	SIRI POWER PRODUCTS	HYDERABAD
3529.	SITE TECHNOLOGY LTD. CO.	DUBAI
3530.	SKARDIN INDUSTRIAL CORP	PONDICHERRY
3531.	SKF INDIA LTD.	CHENNAI
3532.	SKF INDIA LTD.	DELHI
3533.	SKF INDIA LTD.	HARIDWAR
3534.	SKF TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
3535.	SKF TECHNOLOGIES INDIA PVT. LTD.	MYSORE
3536.	SKM AIR-CONDITIONING EQUIPMENT LLC	SHARJAH
3537.	SKS GROUP CO W.L.L	KUWAIT
3538.	SL LUMAX LTD.	CHENNAI
3539.	SLING MEDIA PVT. LTD.	BANGALORE
3540.	SLK SOFTWARE SERVICES PVT. LTD.	BANGALORE
3541.	SLK SOFTWARE SERVICES PVT. LTD.	BHADRAVATHI
3542.	SMART ENOVATIONS (I) PVT. LTD.	BANGALORE
3543.	SMART ENOVATIONS (INDIA) PVT. LTD.	VIRAJPET
3544.	SMARTPLAY TECHNOLOGIES (INDIA) PVT. LTD.	BANGALORE
3545.	SMARTSTRINGS	HYDERABAD
3546.	SMC PNEUMATICS INDIA PVT. LTD.	DELHI
3547.	SMILECARE DENTAL HOSPITAL	HYDERABAD
3548.	SMOE PTE LTD.	SINGAPORE
3549.	SMS TAXI CABS PVT. LTD.	BHUBANESWAR
3550.	SMT. JAYABEN MODY HOSPITAL	WADHWAN
3551.	SMT. K. NAVALE COLLEGE OF PHYSIOTHERAPY	PUNE
3552.	SN INDUSTRIAL CONSULTANTS	BANGALORE
3553.	SNECMA HAL AEROSPACE PVT. LTD.	BANGALORE
3554.	SNECMA HAL AEROSPACE PVT. LTD.	HINDUPUR
3555.	SOBHA ENGINEERING CONTRACTING LLC	DUBAI
3556.	SOCIETE GENERALE GLOBAL SOLUTION CENTER	BANGALORE
3557.	SOCIETY FOR ELECTRONIC TRANSACTIONS &	CHENNAI
3558.	SOFTCELL TECHNOLOGIES LTD.	CHENNAI
3559.	SOFTLINK INTERNATIONAL PVT. LTD.	PUNE
3560.	SOFTWARE AG BANGALORE TECHNOLOGIES LTD.	BANGALORE
3561.	SOFTWARE PARADIGMS INFOTECH	BANGALORE
3562.	SOHAR ALUMINIUM LLC	JAMNAGAR
3563.	SOLARWINDS INDIA PVT. LTD.	CHENNAI
3564.	SOLITON TECHNOLOGIES PVT. LTD.	BANGALORE
3565.	SONA KOYO STEERING SYSTEMS LTD.	GURGAON
3566.	SONA KOYO STEERING SYSTEMS LTD.	KANCHIPURAM

3567.	SONA OKEGAWA PRECISION FORGINGS LTD.	GURGAON
3568.	SONATA SOFTWARE LTD.	BANGALORE
3569.	SONATA SOFTWARE LTD.	CHENNAI
3570.	SONATA SOFTWARE LTD.	KASARAGOD
3571.	SONICWALL INFOSECURITY PVT. LTD.	BANGALORE
3572.	SONY ELECTRONICS (S) PTE LTD.	SINGAPORE
3573.	SONY INDIA SOFTWARE CENTRE	BANGALORE
3574.	SONY INDIA SOFTWARE COMPANY	CHENNAI
3575.	SOPRA GROUP INDIA PVT. LTD.	GHAZIABAD
3576.	SOPRA GROUP INDIA PVT. LTD.	NEW DELHI
3577.	SOPRA INDIA PVT. LTD.	NOIDA
3578.	SOURCESOL INTERACTIVE TECHNOLOGIES PRIVA	TIRUCHIRAPPALLI
3579.	SOURCETRACE SYSTEMS INDIA PVT. LTD.	COIMBATORE
3580.	SOWJANYA DENTAL HOSPITAL	HYDERABAD
3581.	SPACE APPLICATIONS CENTRE	AHMEDABAD
3582.	SPAN INFOTECH INDIA PVT. LTD.	BANGALORE
3583.	SPECIALIST SERVICES	DUBAI
3584.	SPECTRIS TECHNOLOGIES PVT. LTD.	NAVI MUMBAI
3585.	SPECTRUM PHARMATECH CONSULTANTS PVT. LTD.	MUMBAI
3586.	SPICER INDIA LTD.	PUNE
3587.	SPICER INDIA LTD.	RUDRAPUR
3588.	SPICER INDIA LTD.	SATARA
3589.	SPIROTECH HEAT EXCHANGERS PVT. LTD.	BHIWADI
3590.	SPM INDIA LTD. UNIT II	BANGALORE
3591.	SPRY RESOURCES INDIA PVT. LTD.	HYDERABAD
3592.	SRA SYSTEMS PVT LTD.	CHENNAI
3593.	SREE RAMCIDES CHEMICALS PVT. LTD.	CHENNAI
3594.	SREI EQUIPMENT FINANCE PVT. LTD.	NEW DELHI
3595.	SRF LTD.	GWALIOR
3596.	SRI CHANIKYA COMPONENTS	HYDERABAD
3597.	SRI VASAVI AGENCY	TIRUVANNAMALAI
3598.	SRI VENKATESHWARA DENTAL COLLEGE	BANGALORE
3599.	SRM MEDICAL COLLEGE HOSPITAL & RC	CHENNAI
3600.	ST MICRO ELECTRONICS PVT. LTD.	SINGAPORE
3601.	ST MICROELECTRONICS PVT. LTD.	GHAZIABAD
3602.	ST MICROELECTRONICS PVT. LTD.	GURGAON
3603.	ST MICROELECTRONICS PVT. LTD.	NEW DELHI
3604.	ST. JOHN'S MEDICAL COLLEGE HOSPITAL	BANGALORE
3605.	STANLEY BLACK & DECKER INDIA LTD.	KOLKATA
3606.	STAR CEMENT COMPANY L.L.C	CHENNAI
3607.	STAR CEMENT, ADITYA BIRLA GROUP	RAS AL KHAIMAH
3608.	STATE HEALTH RESOURCE CENTER	RAIPUR
3609.	STEEL AUTHORITY OF INDIA LTD.	KEONJHAR
3610.	STEEL EXCHANGE INDIA LTD.	SREERAMPURAM
3611.	STEER ENGINEERING PVT. LTD.	BANGALORE
3612.	STERIA INDIA LTD.	NEW DELHI
3613.	STERLING & WILSON	KALYAN
3614.	STERLING HOLIDAYS	VILLUPURAM
3615.	STERLING HOSPITAL	JUNAGADH
3616.	STERLING SOFTWARE PVT. LTD.	CHENNAI
3617.	STERLITE TECHNOLOGIES LTD.	AURANGABAD
3618.	STMICROELECTRONICS PVT. LTD.	GHAZIABAD
3619.	STMICROELECTRONICS PVT. LTD.	GREATER NOIDA
3620.	STMICROELECTRONICS PVT. LTD.	MEERUT
3621.	STMICROELECTRONICS PVT. LTD.	NOIDA

3622.	STMICROELECTRONICS PVT.LTD.	PATIALA
3623.	STRIDES ARCOLAB LTD.	BANGALORE
3624.	STRYKER GLOBAL TECH CENTER	ERODE
3625.	STRYKER GLOBAL TECHNOLOGY CENTER	GURGAON
3626.	STRYKER GLOBAL TECHNOLOGY CENTRE PVT.LTD	KARNAL
3627.	STUDEC TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
3628.	SUBEX PVT. LTD.	BANGALORE
3629.	SUBROS LTD.	DELHI
3630.	SUBROS LTD.	NOIDA
3631.	SUCCESSFACTORS AN SAP COMPANY	BANGALORE
3632.	SUHAIL BAHWAN HEALTH CARE CENTER LLC	CHENNAI
3633.	SULEKHA.COM NEW MEDIA PVT. LTD.	CHENNAI
3634.	SULZER INDIA	PUNE
3635.	SULZER TECH INDIA PVT. LTD.	NAVI MUMBAI
3636.	SUMMIT IT SOLUTIONS PVT. LTD.	BANGALORE
3637.	SUN KNOWLEDGE PVT. LTD.	HOWRAH
3638.	SUNDARAM - CLAYTON LTD.	CHENNAI
3639.	SUNDARAM AUTO COMPONENTS LTD.	CHENNAI
3640.	SUNDARAM AUTO COMPONENTS LTD.	HOSUR
3641.	SUNDARAM AUTO COMPONENTS LTD.	PUDUCHERRY
3642.	SUNDARAM CLAYTON LTD.	CHENNAI
3643.	SUNDARAM CLAYTON LTD.	GINGEE TALUK
3644.	SUNDARAM CLAYTON LTD.	HOSUR
3645.	SUNDARAM CLAYTON LTD.	SALEM
3646.	SUNDARAM INDUSTRIES LTD.	CHENNAI
3647.	SUNDARAM INFOTECH SOLUTIONS	CHENNAI
3648.	SUNDARAM-CLAYTON LTD.	CHENGALPET
3649.	SUNDRAM BLEISTAHL LTD.	THENI
3650.	SUNDRAM FASTENERS LTD.	CHENNAI
3651.	SUNDRAM FASTENERS LTD.	HOSUR
3652.	SUNDRAM FASTENERS LTD.	NAGERCOIL
3653.	SUNDRAM FASTENERS LTD.	NAMAKKAL
3654.	SUNDRAM FASTENERS LTD.	PONDICHERRY
3655.	SUNDRAM FASTENERS LTD.	SALEM
3656.	SUNDRAM FASTENERS LTD.	VELLORE
3657.	SUNEDISON ENERGY INDIA PVT. LTD.	BANGALORE
3658.	SUNGARD GLOBAL SOLUTION CENTER	DOMBIVLI
3659.	SUNGARD SOLUTIONS (INDIA) PVT. LTD.	PUNE
3660.	SUNGARD TECHNOLOGY SERVICES	BANGALORE
3661.	SUNGRACE PLASTIC INDUSTRIES	DELHI
3662.	SUNSERVICES FORKLIFT PARTS PVT. LTD.	CHENNAI
3663.	SUNSHINE HEART INSTITUTE	SECUNDERABAD
3664.	SUNTEC BUSINESS SOLUTIONS ,TECHNOPARK	THIRUVANANTHAPURAM
3665.	SUNTEC BUSINESS SOLUTIONS PVT. LTD.	ADOOR
3666.	SUPER AUTO FORGE PVT. LTD.	CHENNAI
3667.	SURIN AUTOMOTIVE PVT. LTD.	BANGALORE
3668.	SUTHERLAND GLOBAL SERVICES	CHENNAI
3669.	SUTHERLAND GLOBAL SERVICES	VELLORE
3670.	SUZLON ENERGY GMBH, BERLIN, GERMANY	BERLIN
3671.	SUZLON ENERGY LTD.	NAGERCOIL
3672.	SUZLON ENERGY LTD.	PUNE
3673.	SUZLON ENERGY LTD.	SALEM
3674.	SWORD GLOBAL INDIA PVT. LTD.	CHENNAI
3675.	SWORKS TECHNOLOGY SOLUTIONS	CHENNAI
3676.	SYARIKAT KEJURUTERAAN SISTEMATIK SDN. BH	SERIA

3677.	SYMANTEC CORPORATION	CHENNAI
3678.	SYMANTEC CORPORATION	NASHIK
3679.	SYMANTEC CORPORATION	PUDUCHERRY
3680.	SYMANTEC CORPORATION	PUNE
3681.	SYMANTEC INDIA PVT. LTD.	JAIPUR
3682.	SYMANTEC INDIA PVT. LTD.	PUNE
3683.	SYMANTEC SOFTWARE SERVICES INDIA PVT. LTD.	AURANGABAD
3684.	SYMANTEC SOFTWARE SERVICES INDIA PVT. LTD.	CHENNAI
3685.	SYMANTEC SOFTWARE SERVICES INDIA PVT. LTD.	COIMBATORE
3686.	SYMANTEC SOFTWARE SERVICES INDIA PVT. LTD.	FARIDABAD
3687.	SYMANTEC SOFTWARE SERVICES INDIA PVT. LTD.	MADURAI
3688.	SYMANTEC SOFTWARE SERVICES INDIA PVT. LTD.	PUNE
3689.	SYMANTEC SOFTWARE SERVICES INDIA PVT. LTD.	RAMAPURAM
3690.	SYMANTEC SOFTWARE SERVICES INDIA PVT. LTD.	TRICHY
3691.	SYMPHONY INFOSPACE INDIA PVT. LTD.	BANGALORE
3692.	SYMPHONY SERVICES LTD.	BANGALORE
3693.	SYMPHONY SERVICES LTD.	HYDERABAD
3694.	SYMPHONY SERVICES LTD.	PUNE
3695.	SYMPHONY TELECA CORPORATION	PUNE
3696.	SYNAPSE LABS PVT. LTD. PUNE	PUNE
3697.	SYNECHRON TECHNOLOGIES PVT. LTD.	PUNE
3698.	SYNERGIX INTERNATIONAL	DUBAI
3699.	SYNERZIP SOFTECH INDIA PVT. LTD.	PUNE
3700.	SYNERVERSE TECHNOLOGIES SERVICE PVT. LTD.	BANGALORE
3701.	SYNOPSIS INDIA PVT. LTD.	BANGALORE
3702.	SYNOPSIS INDIA PVT. LTD.	NEW DELHI
3703.	SYNOPSIS INDIA PVT. LTD.	PITAMPURA
3704.	SYNTEL PVT. LTD.	CHENNAI
3705.	SYNTEL PVT. LTD.	COIMBATORE
3706.	SYNTEL PVT. LTD.	MEERUT
3707.	SYNTEL PVT. LTD.	SALEM
3708.	SYNTHITE INDUSTRIES LTD.	THIRUNELVELI
3709.	SYNVERSE TECHNOLOGIES PVT. LTD.	HYDERABAD
3710.	T & B INTERNATIONAL PVT. LTD.	CHENNAI
3711.	T.D.WILLIAMSON ASIA PACIFIC PTE LTD.	JURONG
3712.	T.V.S SUNDARAM CLAYTON (P) LTD.	CHENNAI
3713.	TABAHA INFOTECH PVT. LTD.	NOIDA
3714.	TADI ENGINEERING & TECHNOLOGY CONSULTING	HYDERABAD
3715.	TAJ GROUP OF HOTELS	CHENNAI
3716.	TAKRAF INDIA LTD.,SATHYAM ENTERPRISES	CHENNAI
3717.	TAKREER	ABU DHABI
3718.	TALENTICA SOFTWARE PVT. LTD.	PUNE
3719.	TALISMA CORPORATION PVT. LTD.	BANGALORE
3720.	TALLY SOLUTIONS PVT. LTD.	BANGALORE
3721.	TAMAMOUL MOTORS	COIMBATORE
3722.	TAMILNADU NEWSPRINT & PAPERS LTD.	KARUR
3723.	TANEJA AEROSPACE & AVIATION LTD.	DHARAPURAM
3724.	TARGET CORPORATION INDIA PVT. LTD.	BANGALORE
3725.	TARGET ENGINEERING CONSTRUCTION COMPANY	ABU DHABI
3726.	TARSHAN SOFTWARE SERVICES PVT. LTD.	DELHI
3727.	TATA ADVANCED MATERIALS LTD.	BANGALORE
3728.	TATA ADVANCED MATERIALS LTD.	HUBLI
3729.	TATA ADVANCED SYSTEMS LTD.	HYDERABAD
3730.	TATA AUTOCOMP SYSTEMS LTD.	KOPPALL
3731.	TATA AUTOCOMP SYSTEMS LTD.	PUNE

3732.	TATA BUSINESS SUPPORT SERVICES	BEGUMPET
3733.	TATA BUSINESS SUPPORT SERVICES LTD.	HYDERABAD
3734.	TATA COMMUNICATIONS LTD.	CHENNAI
3735.	TATA COMMUNICATIONS LTD.	MUMBAI
3736.	TATA COMMUNICATIONS LTD.	PUNE
3737.	TATA COMMUNICATIONS LTD.	TARAKESWAR
3738.	TATA CONSULTANCY SERVICES LTD.	ALAPPUZHA
3739.	TATA CONSULTANCY SERVICES LTD.	AMRAVATI
3740.	TATA CONSULTANCY SERVICES LTD.	ARUPPUKOTTAI
3741.	TATA CONSULTANCY SERVICES LTD.	BANGALORE
3742.	TATA CONSULTANCY SERVICES LTD.	CHENNAI
3743.	TATA CONSULTANCY SERVICES LTD.	COIMBATORE
3744.	TATA CONSULTANCY SERVICES LTD.	CUDDALORE
3745.	TATA CONSULTANCY SERVICES LTD.	DEHRADUN
3746.	TATA CONSULTANCY SERVICES LTD.	DINDIGUL
3747.	TATA CONSULTANCY SERVICES LTD.	ERNAKULAM
3748.	TATA CONSULTANCY SERVICES LTD.	ERODE
3749.	TATA CONSULTANCY SERVICES LTD.	GHAZIABAD
3750.	TATA CONSULTANCY SERVICES LTD.	GUNTUR
3751.	TATA CONSULTANCY SERVICES LTD.	GURGAON
3752.	TATA CONSULTANCY SERVICES LTD.	HANUMANGARH
3753.	TATA CONSULTANCY SERVICES LTD.	HASSAN
3754.	TATA CONSULTANCY SERVICES LTD.	HAZARIBAGH
3755.	TATA CONSULTANCY SERVICES LTD.	HISAR
3756.	TATA CONSULTANCY SERVICES LTD.	HOSUR
3757.	TATA CONSULTANCY SERVICES LTD.	HYDERABD
3758.	TATA CONSULTANCY SERVICES LTD.	JAIPUR
3759.	TATA CONSULTANCY SERVICES LTD.	JAORA
3760.	TATA CONSULTANCY SERVICES LTD.	KANNUR
3761.	TATA CONSULTANCY SERVICES LTD.	KARAIKAL
3762.	TATA CONSULTANCY SERVICES LTD.	KARUR
3763.	TATA CONSULTANCY SERVICES LTD.	KHAMMAM
3764.	TATA CONSULTANCY SERVICES LTD.	KOCHI
3765.	TATA CONSULTANCY SERVICES LTD.	KOLKATA
3766.	TATA CONSULTANCY SERVICES LTD.	KOTTAYAM
3767.	TATA CONSULTANCY SERVICES LTD.	LUCKNOW
3768.	TATA CONSULTANCY SERVICES LTD.	MADURAI
3769.	TATA CONSULTANCY SERVICES LTD.	MUMBAI
3770.	TATA CONSULTANCY SERVICES LTD.	NAGPUR
3771.	TATA CONSULTANCY SERVICES LTD.	NAMAKKAL
3772.	TATA CONSULTANCY SERVICES LTD.	NARASARAOPET
3773.	TATA CONSULTANCY SERVICES LTD.	NEW DELHI
3774.	TATA CONSULTANCY SERVICES LTD.	NEYVELI
3775.	TATA CONSULTANCY SERVICES LTD.	PUDUCHERRY
3776.	TATA CONSULTANCY SERVICES LTD.	PUNE
3777.	TATA CONSULTANCY SERVICES LTD.	RANCHI
3778.	TATA CONSULTANCY SERVICES LTD.	REENGUS
3779.	TATA CONSULTANCY SERVICES LTD.	SALEM
3780.	TATA CONSULTANCY SERVICES LTD.	SECUNDERABAD
3781.	TATA CONSULTANCY SERVICES LTD.	SHOLINGHUR
3782.	TATA CONSULTANCY SERVICES LTD.	THANE
3783.	TATA CONSULTANCY SERVICES LTD.	THIRUVARUR
3784.	TATA CONSULTANCY SERVICES LTD.	THRISSUR
3785.	TATA CONSULTANCY SERVICES LTD.	TIRUCHIRAPPALLI
3786.	TATA CONSULTANCY SERVICES LTD.	TIRUNELVELI

3787.	TATA CONSULTANCY SERVICES LTD.	TIRUPUR
3788.	TATA CONSULTANCY SERVICES LTD.	TRICHY
3789.	TATA CONSULTANCY SERVICES LTD.	TRIVANDRUM
3790.	TATA CONSULTANCY SERVICES LTD.	TUMKUR
3791.	TATA CONSULTANCY SERVICES LTD.	VIJAYAWADA
3792.	TATA CUMMINS LTD.	JAMSHEDPUR
3793.	TATA CUMMINS LTD.	PHALTAN
3794.	TATA ELXSI LTD.	BANGALORE
3795.	TATA ELXSI LTD.	CALICUT
3796.	TATA ELXSI LTD.	CHENNAI
3797.	TATA ELXSI LTD.	COIMBATORE
3798.	TATA ELXSI LTD.	KANCHIPURAM
3799.	TATA ELXSI LTD.	KOTTAYAM
3800.	TATA ELXSI LTD.	MADURAI
3801.	TATA ELXSI LTD.	NEW DELHI
3802.	TATA ELXSI LTD.	PUNE
3803.	TATA ELXSI LTD.	SALEM
3804.	TATA ELXSI LTD.	THIRUVANANTHAPURAM
3805.	TATA ELXSI LTD.	THODUPUZHA
3806.	TATA ELXSI LTD.	TRIVANDRUM
3807.	TATA HITACHI CONSTRUCTION MACHINERIES CO	DHARWAD
3808.	TATA HITACHI CONSTRUCTION MACHINERIES CO	KHARAGPUR
3809.	TATA HITACHI CONSTRUCTION MACHINERIES CO	MEDINIPUR
3810.	TATA JOHNSON CONTROLS AUTOMOTIVE LTD.	PUNE
3811.	TATA LOCKHEED MARTIN AEROSTRUCTURES LIMI	HYDERABAD
3812.	TATA MOTORS LTD.	AHMEDABAD
3813.	TATA MOTORS LTD.	AMRAVATI
3814.	TATA MOTORS LTD.	CHENNAI
3815.	TATA MOTORS LTD.	COIMBATORE
3816.	TATA MOTORS LTD.	DHARWAD
3817.	TATA MOTORS LTD.	GHAZIABAD
3818.	TATA MOTORS LTD.	JAMSHEDPUR
3819.	TATA MOTORS LTD.	LUCKNOW
3820.	TATA MOTORS LTD.	PUNE
3821.	TATA MOTORS LTD.	RUDRAPUR
3822.	TATA MOTORS LTD.	SATARA
3823.	TATA POWER SED	BANGALORE
3824.	TATA POWER SED	THANE
3825.	TATA PROJECTS LTD.	CHENNAI
3826.	TATA PROJECTS LTD.	KOLKATA
3827.	TATA PROJECTS LTD.	NELLORE
3828.	TATA STEEL LTD.	GHATOTAND
3829.	TATA STEEL LTD.	JODA
3830.	TATA TECHNOLOGIES LTD.	AHMEDABAD
3831.	TATA TECHNOLOGIES LTD.	HYDERABAD
3832.	TATA TECHNOLOGIES LTD.	JAMSHEDPUR
3833.	TATA TECHNOLOGIES LTD.	LUCKNOW
3834.	TATA TECHNOLOGIES LTD.	PUNE
3835.	TATA TELESERVICES LTD.	GUWAHATI
3836.	TATAELXSI LTD.	BANGALORE
3837.	TAVANT TECHNOLOGIES	BELGAUM
3838.	TAVANT TECHNOLOGIES	NEW DELHI
3839.	TAVANT TECHNOLOGIES PVT. LTD.	BANGALORE
3840.	TAVISCA SOLUTIONS PVT. LTD.	PUNE
3841.	TAWAZUN PRECISION INDUSTRIES	ABU DHABI



3842.	Taweela A2 Operating Company	Abu Dhabi
3843.	TCL India Holdings Pvt. Ltd.	Chennai
3844.	TEBODIN & PARTNERS LLC, AL-ATHAIBAH	Muscat
3845.	TEBODIN MIDDLE EAST	Abu Dhabi
3846.	TECH MAHINDRA LTD.	Bangalore
3847.	TECH MAHINDRA LTD.	Bikaner
3848.	TECH MAHINDRA LTD.	Chennai
3849.	TECH MAHINDRA LTD.	Coimbatore
3850.	TECH MAHINDRA LTD.	Dombivli
3851.	TECH MAHINDRA LTD.	Ghaziabad
3852.	TECH MAHINDRA LTD.	Hubli
3853.	TECH MAHINDRA LTD.	Hyderabad
3854.	TECH MAHINDRA LTD.	Jaipur
3855.	TECH MAHINDRA LTD.	Kolkata
3856.	TECH MAHINDRA LTD.	Nabadwip
3857.	TECH MAHINDRA LTD.	Neemuch
3858.	TECH MAHINDRA LTD.	New Delhi
3859.	TECH MAHINDRA LTD.	Pondicherry
3860.	TECH MAHINDRA LTD.	Pune
3861.	TECH MAHINDRA LTD.	Secunderabad
3862.	TECH MAHINDRA LTD.	Warangal
3863.	TECH SEMICONDUCTOR	Chennai
3864.	TECH SEMICONDUCTOR SINGAPORE PTE LT	Singapore
3865.	TECHINT INDIA PVT. LTD.	Mumbai
3866.	TECHNICAL BUSINESS SOLUTION	Jodhpur
3867.	TECHNICAL EQUIPMENT CO.LLC	Abu Dhabi
3868.	TECHNIP E & C INDIA LTD.	Mumbai
3869.	TECHNIP FRANCE	Abu Dhabi
3870.	TECHNIP INDIA LTD.	Chennai
3871.	TECHNOINFOTECH	Tirunelveli
3872.	TECHNOMED ELECTRONICS	Chennai
3873.	TECHNOSOFT GLOBAL SERVICES (P) LTD.	Bangalore
3874.	TECHNOSOFT GLOBAL SERVICES P LTD.	Salem
3875.	TECHSIGNIA SOLUTIONS PVT. LTD.	Pune
3876.	TECNOTREE CONVERGENCE LTD.	Bangalore
3877.	TECTON ENGINEERING & CONSTRUCTION LLC	Chennai
3878.	TEJAS NETWORKS LTD.	Bangalore
3879.	TEKNIKA SOLUTIONS	Thiruvananthapuram
3880.	TEKSYSTEMS GLOBAL SERVICES	Bangalore
3881.	TEMENOS INDIA PVT. LTD.	Bangalore
3882.	TEMENOS INDIA PVT. LTD.	Chennai
3883.	TENSILICA TECHNOLOGIES INDIA	Pune
3884.	TENXLABS TECHNOLOGIES PVT. LTD.	Hyderabad
3885.	TEREX INDIA PVT. LTD.	Udupi
3886.	TESA TAPES ( I ) PVT. LTD.	New Delhi
3887.	TESCO HINDUSTAN SERVICE CENTRE	Bangalore
3888.	TESCO HSC	Bangalore
3889.	TESCO HSC	Namakkal
3890.	TESSOLVE SERVICES PVT. LTD.	Bangalore
3891.	TEST YANTRA SOFTWARE SOLUTIONS	Bangalore
3892.	TEST YANTRA SOFTWARE SOLUTIONS	Mandya
3893.	TEXAS INSTRUMENTS (INDIA) PVT. LTD.	Bangalore
3894.	TEXOL ENGINEERING PVT. LTD.	Pune
3895.	TEXTRON INDIA PVT. LTD.	Bangalore
3896.	THAI SUMMIT NEEL AUTO PVT. LTD.	Madurai

3897.	THAI SUMMIT NEEL AUTO PVT. LTD.	THIRUVANNAMALAI
3898.	THE MILLENNIUM	KHETRI NAGAR
3899.	THE MISSION HOSPITAL	RANIGANJ
3900.	THE NEW INDIA ASSURANCE CO. LTD.	KOLKATA
3901.	THE PRINCETON REVIEW	GURGAON
3902.	THE RAMCO CEMENTS LTD.	CHENNAI
3903.	THE ROYAL BANK OF SCOTLAND BUSINESS SERV	CHENNAI
3904.	THE SINAGRENI COLLIERIES COMPANY LTD.	KOTHAGUDEM
3905.	THE SMART TECHIES P. LTD.	JAIPUR
3906.	THE TATA POWER COMPANY LTD.	MUMBAI
3907.	THE WORLD BANK	CHENNAI
3908.	THERMAX LTD.	DINDIGUL
3909.	THERMAX LTD.	PUNE
3910.	THERMO FISHER SCIENTIFIC INDIA PVT. LTD.	CHENNAI
3911.	THINK FUTURE TECHNOLOGIES	GHAZIABAD
3912.	THINK42 LABS (P) LTD.,	CHENNAI
3913.	THIRDWARE TECHNOLOGY SOLUTIONS PVT. LTD.	CHENNAI
3914.	THOMSON REUTERS ASIA PTE LTD.	CHENNAI
3915.	THOMSON REUTERS INDIA PVT. LTD.	BANGALORE
3916.	THOUGHTWORKS INDIA PVT. LTD.	TIRUNELVELI
3917.	THOUGHTWORKS TECHNOLOGIES	NEW DELHI
3918.	THREE GEE SOLUTION PVT. LTD.	NOIDA
3919.	THYSSENKRUPP ELEVATOR INDIA PVT. LTD.	NEW DELHI
3920.	THYSSENKRUPP ELEVATORS	DUBAI
3921.	THYSSENKRUPP ELEVATORS UAE LLC	ABU DHABI
3922.	TI CYCLES OF INDIA	CHENNAI
3923.	TI METAL FORMING	THIRUVALLUR
3924.	TIBCO SOFTWARE INC	NAVI MUMBAI
3925.	TIBCO SOFTWARE INDIA PVT. LTD.	PUNE
3926.	TIETO SOFTWARE TECHNOLOGIES LTD.	PUNE
3927.	TIGER STEEL ENGINEERING LLC	SHARJAH
3928.	TIME TECHNOPLAST LTD.	MUMBAI
3929.	TIMKEN ENGINEERING & RESEARCH - INDIA	BANGALORE
3930.	TIMKEN INDIA MANUFACTURING PVT. LTD.	CHENNAI
3931.	TITAN COMPANY LTD.	BANGALORE
3932.	TITAN COMPANY LTD.	CHIDAMBARAM
3933.	TITAN COMPANY LTD.	HOSUR
3934.	TITAN COMPANY LTD.	TIRUPUR
3935.	TITAN COMPANY LTD.	VILLUPURAM
3936.	TITAN INDUSTRIAL LTD.	HOSUR
3937.	TITAN INDUSTRIES LTD.	BANGALORE
3938.	TITAN INDUSTRIES LTD.	HOSUR
3939.	TITAN INDUSTRIES LTD.	MADURAI
3940.	TITAN INDUSTRIES LTD.	TIRUNELVELI
3941.	TNQ BOOKS & JOURNALS PVT. LTD.	CHENNAI
3942.	TNS INDIA PVT. LTD.	SECUNDERABAD
3943.	TOBOC INTERNATIONAL	BANGALORE
3944.	TOLANI MARITIME INSTITUTE	PUNE
3945.	TOLUNA INDIA PVT. LTD.	MEERUT
3946.	TOOLTECH GLOBAL ENGINEERING PVT. LTD.	PUNE
3947.	TORRY HARRIS BUSINESS SOLUTIONS	BANGALORE
3948.	TOSHIBA EMBEDDED SOFTWARE (INDIA) PVT. LTD.	BANGALORE
3949.	TOSHIBA GLOBAL COMMERCE SOLUTIONS LTD.	BANGALORE
3950.	TOSHIBA JSW TURBINE & GENERATOR PVT. LTD.	KRISHNAGIRI
3951.	TOSHIBA MACHINE (CHENNAI) PVT.LTD	CHENNAI

3952.	TOSHIBA SOFTWARE INDIA PVT. LTD.	BANGALORE
3953.	TOWARDS VISION TECHNOLOGIES PVT. LTD.	GURGAON
3954.	TOYO ENGINEERING INDIA LTD.	THANE
3955.	TOYOTA KIRLOSKAR MOTOR PVT. LTD.	BANGALORE
3956.	TOYOTA KIRLOSKAR MOTOR PVT. LTD.	MANDYA
3957.	TP VISION INDIA PVT. LTD.	BANGALORE
3958.	TPF TECHNOLOGIES PVT. LTD.	NOIDA
3959.	TPS INFRASTRUCTURE LTD.	DURG
3960.	TR ENGINEERING LLC	MUSCAT
3961.	TR ENGINEERING LLC	RUWI
3962.	TRAC FUJICO AIR SYSTEMS LLP	CHENNAI
3963.	TRACTEBEL ENGINEERING PVT. LTD.	NEW DELHI
3964.	TRACTORS & FARM EQUIPMENT LTD.	CHENGANNUR
3965.	TRACTORS & FARM EQUIPMENT LTD.	DODDABALLAPUR
3966.	TRACTORS & FARM EQUIPMENT LTD.	MADURAI
3967.	TRACTORS & FARM EQUIPMENTS LTD.	CHENNAI
3968.	TRACTORS INDIA LTD.	KHARAGPUR
3969.	TRANE INDIA PVT. LTD.	DELHI
3970.	TRANQUILIT SOFTWARE PVT. LTD.	COIMBATORE
3971.	TRANS GULF ELECTRO MECHANICAL L.L.C	DUBAI
3972.	TRANS GULF ELECTRO MECHANICAL LLC	DUBAI
3973.	TRANS GULF ELECTROMECHANICAL LLC	DUBAI
3974.	TRANSTER INDIA PVT. LTD.	PUNE
3975.	TREND MICRO INDIA PVT. LTD.	BANGALORE
3976.	TRIDAT TECHNOLOGIES PVT. LTD.	MUMBAI
3977.	TRIDENT INFOSOL PVT. LTD.	BANGALORE
3978.	TRIMBLE MOBILITY SOLUTIONS PVT. LTD.	PUNE
3979.	TRIPLE POINT TECHNOLOGY (I) PVT. LTD.	PUNE
3980.	TRIVENI TURBINES LTD.	BANGALORE
3981.	TRW AUTOMOTIVE	CHENNAI
3982.	TRX TECHNOLOGIES INDIA PVT.LTD	BANGALORE
3983.	TUBE INVESTMENTS OF INDIA LTD.	PUNE
3984.	TUBE PRODUCTS OF INDIA	CHENNAI
3985.	TUBE PRODUCTS OF INDIA	CHENNAI
3986.	TURBO ENERGY LTD.	CHENNAI
3987.	TURNING POINT EXPORTS PVT. LTD.	RAEBARELI
3988.	TUSHACO PUMPS PVT.LTD	DAMAN
3989.	TUV SUD SOUTH ASIA PVT. LTD.	BANGALORE
3990.	TVM SIGNALLING & TRANSPORTATION SYSTEM	BANGALORE
3991.	TVS & SONS LTD.	CHENNAI
3992.	TVS ELECTRONICS LTD.	CHENNAI
3993.	TVS INFOTECH LTD.	TRICHY
3994.	TVS MOTOR COMPANY LTD.	CHENNAI
3995.	TVS MOTOR COMPANY LTD.	ERODE
3996.	TVS MOTOR COMPANY LTD.	HOSUR
3997.	TVS MOTOR COMPANY LTD.	MYSORE
3998.	TVS MOTOR COMPANY LTD.	SRIVILLIPUTTUR
3999.	TVS MOTOR COMPANY LTD.	TUTICORIN
4000.	TVS SUNDARAM CLAYTON LTD.	CHENNAI
4001.	TVS SUNDARAM CLAYTON LTD.	POONDI
4002.	TVS SUNDARAM CLAYTON LTD.	TIRUNELVELI
4003.	TVS SUNDARAM CLAYTON LTD.	TIRUPUR
4004.	TVS SUNDARAM CLAYTON LTD.	VILLUPURAM
4005.	TVS SUNDRAM FASTENERS LTD.	COIMBATORE
4006.	TVS SUNDRAM FASTENERS LTD.	HOSUR

4007.	TVS SUNDRAM FASTENERS LTD.	SALEM
4008.	TVS SUNDRAM FASTENERS LTD.	TRICHY
4009.	TVS SUNDRAM FASTENERS LTD.	VELLORE
4010.	TVSMOTORS LTD.	HOSUR
4011.	TVS-SUNDRAM FASTENERS LTD.	CHENNAI
4012.	TVS-SUNDRAM FASTENERS LTD.	KANCHIPURAM
4013.	TYCO ELECTRONICS	BANGALORE
4014.	TYCO FIRE & SECURITY UAE	ABU DHABI
4015.	U P POWER CORP LTD.	GHAZIABAD
4016.	UCAL FUEL SYSTEMS LTD.	CHENNAI
4017.	UCAL FUEL SYSTEMS LTD.	VILLUPURAM
4018.	UCAM PVT. LTD.	BANGALORE
4019.	ULTRA TECH CEMENT LTD.	ARIYALURU
4020.	ULTRATECH CEMENT LTD.	AWARPUR
4021.	ULTRATECH CEMENT LTD.	CHANDRAPUR
4022.	ULTRATECH CEMENT LTD.	CHITTORGARH
4023.	ULTRATECH CEMENT LTD.	GHAZIABAD
4024.	ULTRATECH CEMENT LTD.	GREATER NOIDA
4025.	ULTRATECH CEMENT LTD.	HOWRAH
4026.	ULTRATECH CEMENT LTD.	JODHPUR
4027.	ULTRATECH CEMENT LTD.	KOVAYA
4028.	ULTRATECH CEMENT LTD.	MUMBAI
4029.	ULTRATECH CEMENT LTD.	RAIGARH
4030.	ULTRATECH CEMENT LTD.	RAIPUR
4031.	ULTRATECH CEMENT LTD.	RAJULA
4032.	ULTRATECH CEMENT LTD.	TADIPATRI
4033.	ULTRATECH CEMENT LTD.	TIRUCHIRAPPALLI
4034.	UNICOMMERCE E SOLUTIONS PVT. LTD.	NOIDA
4035.	UNICORN MCF SOLUTIONS PVT. LTD.	COCHIN
4036.	UNICORN PACKERS PVT. LTD.	AHMEDABAD
4037.	UNIKID - INTERNATINAL KIDS CLOTHING	BARNALA
4038.	UNIPRES INDIA PVT. LTD.	CHEYAR
4039.	UNIQUE SOLUTIONS	CHENNAI
4040.	UNISYS GLOBAL PVT. LTD.	BANGALORE
4041.	UNITED ENGINEERING SERVICES	MUSCAT
4042.	UNITED ENGINEERING SERVICES LLC	RUSAYL
4043.	UNITED HEALTH GROUP	HYDERABAD
4044.	UNITED HEALTH GROUP	JAIPUR
4045.	UNITED HEALTH GROUP INFORMATION SERVICES	FARIDABAD
4046.	UNITED HEALTH GROUP PVT. LTD.	GURGAON
4047.	UNITED HEALTH GROUP, GURGAON	GURGAON
4048.	UNITED ONLINE SOFTWARE DEV.(I) PVT. LTD.	HYDERABAD
4049.	UNITED PHOSPHORUS LTD.	BHARUCH
4050.	UNITED SPIRITS LTD.	UDAIPUR
4051.	UNITED TECHNOLOGIES CORPORATION	BANGALORE
4052.	UNITED TELECOMS LTD.	HYDERABAD
4053.	UNITEDHEALTH GROUP INFORMATION SERVICES	NEW DELHI
4054.	UNITY APPLIANCES LTD.,VIDEOCON GROUP	RAMANATHAPURAM
4055.	UNIVERSAL HOSPITAL LLC	ABU DHABI
4056.	UNIVERSAL POWER SYS PVT. LTD.(A)TECHZONE	CHENNAI
4057.	UNIVERSAL POWER SYSTEM(A) TECHZONE	CHENNAI
4058.	UNIVERSAL PRODUCTS SOLUTION	PALAKKAD
4059.	UNIVERSAL SERVICE CENTER	ABU DHABI
4060.	UNIVERSITY OF KASHMIR	SRINAGAR
4061.	UNIVERSITY YADUNDE 1	ANTANANARIVO

4062.	UNIVERSITY YADUNDE 1	CAMEROON
4063.	UNIVERSITY YADUNDE 1	KIGALI
4064.	UNIVERSITY YADUNDE 1	LIBREVILLE
4065.	UNIVERSITY YADUNDE 1	MAPUTO
4066.	UNIVERSITY YADUNDE 1	SAO TOME
4067.	UNIVERSITY YADUNDE 1	YAOUNDE
4068.	US CONSULATE DUBAI	DUBAI
4069.	US TECHNOLOGY INTERNATIONAL PVT. LTD.	TRIVANDRUM
4070.	UST - GLOBAL INTERNATIONAL PVT. LTD.	BANGALORE
4071.	UST - GLOBAL INTERNATIONAL PVT. LTD.	CHENNAI
4072.	UST - GLOBAL INTERNATIONAL PVT. LTD.	KANYAKUMARI
4073.	UST - GLOBAL INTERNATIONAL PVT. LTD.	KUPPAM
4074.	UST - GLOBAL INTERNATIONAL PVT. LTD.	MADURAI
4075.	UST - GLOBAL INTERNATIONAL PVT. LTD.	MAVELIKARA
4076.	UST - GLOBAL INTERNATIONAL PVT. LTD.	TRIPUNITHURA
4077.	UST - GLOBAL INTERNATIONAL PVT. LTD.	TRIVANDRUM
4078.	UTC AEROSPACE SYSTEMS	BANGALORE
4079.	UVJ TECHNOLOGIES PVT. LTD.	ERNAKULAM
4080.	V2 TECH VENTURES PVT. LTD.	DHULE
4081.	VALEO INDIA PVT. LTD.	CHENNAI
4082.	VALEO LIGHTING SYSTEMS INDIA PVT. LTD.	PUNE
4083.	VALEO MINDA ELECTRICAL SYSTEMS INDIA PVT.LTD.	PUNE
4084.	VALUE MULTIPLIER CONSULTANCY SERVICES	VISAKHAPATNAM
4085.	VALUELABS	HYDERABAD
4086.	VALUESOURCE TECHNOLOGIES	CHENNAI
4087.	VALVTECHNOLOGIES PVT. LTD.	COIMBATORE
4088.	VAM DRILLING MIDDLE EAST FZE	DUBAI
4089.	VAMSOFT TECHNOLOGY & CONSULTANCY PVT. LTD.	CHENNAI
4090.	VAN OORD GULF FZE	DUBAI
4091.	VANDE SOFTECH PVT. LTD.	BELLARY
4092.	VARAL LLC	DUBAI
4093.	VARDHMAN FABRICS	TIRUVARUR
4094.	VARDHMAN SPECIAL STEELS LTD.	AMBALA CITY
4095.	VARIAN MEDICAL SYSTEMS INDIA SOFTWARE PVT.LTD.	PUNE
4096.	VARROC ENGINEERING PVT. LTD.	PUNE
4097.	VARROC ENGINEERING PVT. LTD. PUNE-VEPL 3	KARAD
4098.	VATANUCOOL ENGINEERS	MUMBAI
4099.	VDL ENABLING TECHNOLOGIS GROUP	TRICHY
4100.	VE COMMERCIAL VEHICLE LTD.	DHAR
4101.	VE COMMERCIAL VEHICLE LTD.	INDORE
4102.	VE COMMERCIAL VEHICLES (PITHAMPUR)	MUSSAFAH
4103.	VE COMMERCIAL VEHICLES LTD.	HIMATNAGAR
4104.	VEC OIL & GAS CONSULTANTS	AL-KHUWAIR
4105.	VEDAMS SOFTWARE SOLUTION (I) PVT. LTD.	HYDERABAD
4106.	VEDANTA ALUMINIUM LTD.	JHARSUGUDA
4107.	VEDIC GURUKUL INSTITUTE OF ENGINEERING &	JAIPUR
4108.	VEEGEE INDUSTRIAL ENTERPRISES PVT. LTD.	FARIDABAD
4109.	VELL BISCUITS (P) LTD.,	TRICHY
4110.	VELOSI LLC	AL KHUWAIR
4111.	VELOSI LLC	HAMRIYA
4112.	VELOSI LLC	MUMBAI
4113.	VELOSI LLC	MUSCAT
4114.	VENTURE GULF ENGINEERING W.L.L	TIRUNELVELI
4115.	VERIFONE INDIA PVT. LTD.	BANGALORE
4116.	VERIZON DATA SERVICES INDIA PVT. LTD.	CHENNAI

4117.	VERIZON DATA SERVICES INDIA PVT. LTD.	COIMBATORE
4118.	VERIZON DATA SERVICES INDIA PVT. LTD.	HYDERABAD
4119.	VERIZON DATA SERVICES INDIA PVT. LTD.	KOVILPATTI
4120.	VERIZON DATA SERVICES INDIA PVT. LTD.	KRISHNAGIRI
4121.	VERIZON DATA SERVICES INDIA PVT. LTD.	TRICHY
4122.	VERIZON DATA SERVICES INDIA PVT. LTD.	VELLORE
4123.	VERMEER MIDDLE EAST FZCO	DUBAI
4124.	VERYX TECHNOLOGIES PVT. LTD.	MADURAI
4125.	VESTAS TECHNOLOGY R&D CHENNAI PVT. LTD.	PALANI
4126.	VESTAS WIND TECHNOLOGY INDIA PVT. LTD.	CHENNAI
4127.	VESTAS WIND TECHNOLOGY INDIA PVT. LTD.	THENI
4128.	VGN DEVELOPERS PVT. LTD.	CHENNAI
4129.	V-GUARD INDUSTRIES LTD.	KOCHI
4130.	VIDEOCON INDUSTRIES LTD.	NEW DELHI
4131.	VIDEOCON TELECOMMUNICATIONS LTD.	NAVI MUMBAI
4132.	VIDYATECH SOLUTIONS	PUNE
4133.	VIDYUTH ENTERPRISES	BANGALORE
4134.	VIGNANI TECHNOLOGIES PVT. LTD.	BANGALORE
4135.	VIKRAM CEMENT WORKS	NEEMUCH
4136.	VIKRAM SARABHAI SPACE CENTRE	TRIVANDRUM
4137.	VIKRAM SARABHAI SPACE CENTRE, ISRO	THIRUVANANTHAPURAM
4138.	VINAI ELECTRIC COMPANY	CHEYYAR
4139.	VIRAJ ENGINEERING COMPANY	NASHIK
4140.	VIRGO ENGINEERS LTD.	COIMBATORE
4141.	VIRGO ENGINEERS LTD.,	COIMBATORE
4142.	VIRGO VALVES & CONTROLS LTD.	PUNE
4143.	VIRTUSA CONSULTING SERVICES PVT. LTD.	HYDERABAD
4144.	VIRTUSA INDIA PVT. LTD.	ARCOT
4145.	VIRTUSA INDIA PVT. LTD.	KRISHNAGIRI
4146.	VIRTUSA INDIA PVT. LTD.	MADURAI
4147.	VIRTUSA INDIA PVT. LTD.	VAYALPAD
4148.	VIRTUSA PVT. LTD.	GIDDALUR
4149.	VIRTUSA PVT. LTD.	MEDAK
4150.	VIRTUSA SOFTWARE SERVICES PVT. LTD.	CHENNAI
4151.	VIRTUSA SOFTWARE SERVICES PVT. LTD.	SALEM
4152.	VISHWAKARMA INSTITUTE OF MANAGEMENT	PUNE
4153.	VISTA INFOSYSTEMS	CHENNAI
4154.	VISTEON AUTOMOTIVE SYSTEMS INDIA PVT. LT	CHENNAI
4155.	VISTEON AUTOMOTIVE SYSTEMS INDIA PVT.LTD	CHENGALPET
4156.	VISTEON ENGINEERING CENTER INDIA PVT.LTD.	PUNE
4157.	VISTEON TECHNICAL & SERVICE CENTRE	BIJNOR
4158.	VISTEON TECHNICAL & SERVICE CENTRE	CHENNAI
4159.	VISUAL IQ TECHNO SERVICES INDIA PVT. LTD.	COCHIN
4160.	VISWAMBARA SOFTWARE SYSTEMS	VILLUPURAM
4161.	VIVIMED LABS (ALATHUR) PVT. LTD.	CHENGALPET
4162.	VIZUAL BUSINESS TOOL PVT. LTD.	CHENNAI
4163.	VK INDUSTRIES	PILANI
4164.	VMWARE SOFTWARE INDIA PVT. LTD.	BANGALORE
4165.	VMWARE SOFTWARE INDIA PVT. LTD.	COIMBATORE
4166.	VOITH ENGINEERING SERVICES	BELGAUM
4167.	VOITH PAPER TECHNOLOGY (INDIA) LTD.	KOLKATA
4168.	VOLKSWAGEN INDIA PVT. LTD.	CHINCHWAD
4169.	VOLKSWAGEN INDIA PVT. LTD.	PUNE
4170.	VOLTAMP MFG CO LLC	RUSAYL
4171.	VOLTAS LTD.	ABU DHABI

4172.	VOLTAS LTD.	DOHA
4173.	VOLTECH ENGINEERS PVT. LTD.	CHENNAI
4174.	VOLTECH ENGINEERS PVT. LTD.	VILLUPURAM
4175.	VOLVO BUSES INDIA PVT. LTD.	BANGALORE
4176.	VOLVO BUSES INDIA PVT. LTD.	HOSUR
4177.	VOLVO EICHER COMMERCIAL VEHICLE LTD.	LUCKNOW
4178.	VOLVO EICHER COMMERCIAL VEHICLES	KRISHNAGIRI
4179.	VOLVO INDIA PVT. LTD.	COIMBATORE
4180.	VOLVO INDIA PVT. LTD. VOLVO PENTA	BANGALORE
4181.	VOLVO TRUCKS INDIA	HYDERABAD
4182.	VOTARY SOFT TECH SOLUTIONS PVT. LTD.	HYDERABAD
4183.	VSM SOFTWARE (P) LTD.	BANGALORE
4184.	VSSC/ISRO	TRIVANDRUM
4185.	VUBITES IND PVT. LTD.	NAVI MUMBAI
4186.	VUBITES INDIA PVT. LTD.	MUMBAI
4187.	WABCO INDIA LTD.	CHENNAI
4188.	WALMART GLOBAL TECHNOLOGY SERVICES	BANGALORE
4189.	WALTAIR HEALTHCARE	VISAKHAPATNAM
4190.	WALTER TOOLS INDIA PVT. LTD.	CHENNAI
4191.	WALTER TOOLS INDIA PVT. LTD.	CHENNAI
4192.	WARTSILA GULF LLC	DUBAI
4193.	WARTSILA INDIA LTD.	VELLORE
4194.	WARTSILA INDIA LTD.	VIRUDHUNAGAR
4195.	WATER & ENVIRONMENTAL TECHNOLOGIES LTD.	RIYADH
4196.	WATERS INDIA PVT. LTD.	KARAIKUDI
4197.	WEATHERFORD DRILLING & PRODUCTION SERVIC	MUMBAI
4198.	WEATHERFORD ENGINEERED SYSTEMS SUPPORT	MUMBAI
4199.	WEATHERFORD OIL TOOLS MIDDLE EAST LTD.	ABU DHABI
4200.	WEATHERFORD OIL TOOLS MIDDLE EAST LTD.	MUSSAFAH
4201.	WEBCOMMERCE(I) PVT. LTD.	NOIDA
4202.	WEBYOG SOFTWARES PVT. LTD.	BANGALORE
4203.	WEG INDUSTRIES (INDIA) PVT. LTD.	HOSUR
4204.	WEG INDUSTRIES INDIA PVT. LTD.	BANGALORE
4205.	WEIR MINERALS (I) PVT. LTD.	BANGALORE
4206.	WELLS FARGO INDIA SOLUTIONS PVT. LTD.	ALAPPUZHA
4207.	WELLS FARGO INDIA SOLUTIONS PVT. LTD.	BANGALORE
4208.	WELLS FARGO INDIA SOLUTIONS PVT. LTD.	COIMBATORE
4209.	WELLS FARGO INDIA SOLUTIONS PVT. LTD.	HYDERABAD
4210.	WELLS FARGO INDIA SOLUTIONS PVT. LTD.	KOTTAYAM
4211.	WELLS FARGO INDIA SOLUTIONS PVT. LTD.	SECUNDERABAD
4212.	WELLSPRING HEALTHCARE PVT. LTD.	MUMBAI
4213.	WELMADE LOCKING SYSTEM PVT. LTD.	PUNE
4214.	WENDT INDIA LTD.	HOSUR
4215.	WENGLOR SENSORIC INDIA PVT. LTD.	CHENNAI
4216.	WESEE, MINISTRY OF DEFENCE	NEW DELHI
4217.	WESLEY CLOVER COMMUNICATION SYSTEMS	BANGALORE
4218.	WESTERN THOMSON INDIA LTD.	BATLAGUNDU
4219.	WESTERN THOMSON INDIA LTD.	DEVAKOTTAI
4220.	WGM SPECTRUM RESEARCH	NEW DELHI
4221.	WHEELS INDIA LTD.	ATPADI
4222.	WHEELS INDIA LTD.	CHENNAI
4223.	WHEELS INDIA LTD.	KARMALA
4224.	WHEELS INDIA LTD.	MADURAI
4225.	WHIRLPOOL OF INDIA LTD.	JOLARPETTAI
4226.	WHIRLPOOL OF INDIA LTD.	PONDICHERRY

4227.	WHIRLPOOL OF INDIA LTD.	PUNE
4228.	WHITECROSS HEALTH INITIATIVES PVT. LTD.	BANGALORE
4229.	WIELAND METALS SINGAPORE PTE LTD.	SINGAPORE
4230.	WILLIAM HARE INDIA PVT. LTD.	CHENNAI
4231.	WIND WORLD INDIA LTD.	DAMAN
4232.	WIND WORLD INDIA(ENERCON INDIA)	UMBERGAON
4233.	WINERGY DRIVE SYSTEMS INDIA PVT. LTD.	THOOTHUKUDI
4234.	WINGATE AUTOMATION	SINGAPORE
4235.	WINSHUTTLE SOFTWARE INDIA PVT. LTD.	PANCHKULA
4236.	WINSTAR ELECTRO MECHANICAL EQUIPMENT AND	THIRUVANNAMALAI
4237.	WINSTAR ELECTROMECHANICAL L.L.C	DUBAI
4238.	WINWIND POWER ENERGY PVT. LTD.	CHENNAI
4239.	WIPRO ARABIA LTD.	RIYADH
4240.	WIPRO ECO ENERGY	BANGALORE
4241.	WIPRO GE HEALTHCARE PVT. LTD.	BANGALORE
4242.	WIPRO GE MEDICAL SYSTEMS (I) PVT. LTD.	BANGALORE
4243.	WIPRO INFOTECH LTD.	ANUPURAM
4244.	WIPRO INFOTECH LTD.	BANGALORE
4245.	WIPRO INFOTECH LTD.	ERNAKULAM
4246.	WIPRO INFOTECH LTD.	ERODE
4247.	WIPRO INFOTECH LTD.	HYDERABAD
4248.	WIPRO INFOTECH LTD.	MYSORE
4249.	WIPRO INFOTECH LTD.	NEW DELHI
4250.	WIPRO TECHNOLOGIES LTD.	BANGALORE
4251.	WIPRO TECHNOLOGIES LTD.	CHENNAI
4252.	WIPRO TECHNOLOGIES LTD.	COIMBATORE
4253.	WIPRO TECHNOLOGIES LTD.	CUDDALORE
4254.	WIPRO TECHNOLOGIES LTD.	DINDIGUL
4255.	WIPRO TECHNOLOGIES LTD.	ERODE
4256.	WIPRO TECHNOLOGIES LTD.	GUNTUR
4257.	WIPRO TECHNOLOGIES LTD.	GURGAON
4258.	WIPRO TECHNOLOGIES LTD.	HOSUR
4259.	WIPRO TECHNOLOGIES LTD.	HYDERABAD
4260.	WIPRO TECHNOLOGIES LTD.	JABALPUR
4261.	WIPRO TECHNOLOGIES LTD.	JHAJJAR
4262.	WIPRO TECHNOLOGIES LTD.	KANCHIPURAM
4263.	WIPRO TECHNOLOGIES LTD.	KARAIKUDI
4264.	WIPRO TECHNOLOGIES LTD.	KOLKATA
4265.	WIPRO TECHNOLOGIES LTD.	KOTTURU
4266.	WIPRO TECHNOLOGIES LTD.	MYSORE
4267.	WIPRO TECHNOLOGIES LTD.	NAMAKKAL
4268.	WIPRO TECHNOLOGIES LTD.	NEYVELI
4269.	WIPRO TECHNOLOGIES LTD.	NOIDA
4270.	WIPRO TECHNOLOGIES LTD.	PANRUTI
4271.	WIPRO TECHNOLOGIES LTD.	PATIALA
4272.	WIPRO TECHNOLOGIES LTD.	PUNE
4273.	WIPRO TECHNOLOGIES LTD.	SALEM
4274.	WIPRO TECHNOLOGIES LTD.	TIRUPUR
4275.	WIPRO TECHNOLOGIES LTD.	TUMKUR
4276.	WIPRO TECHNOLOGIES LTD.	VASUDEVANALLUR
4277.	WIPRO TECHNOLOGIES LTD.	VELLORE
4278.	WIRTGEN INDIA PVT. LTD.,	THANE
4279.	WME CONSULTANTS	DUBAI
4280.	WMI KONECRANES INDIA LTD.	CHENNAI
4281.	WOCKHARDT HOSPITALS	MUMBAI



4282.	WOCKHARDT LTD.	AURANGABAD
4283.	WONDER CEMENT LTD.	NINBAHERA
4284.	WOOD GROUP - CCC LTD.	MUSCAT
4285.	WORLD CLASS SERVICES P.LTD(RCOM PROJECT)	RAIGARH
4286.	WORLEY PARSONS OMAN ENGINEERING L.L.C	ABU DHABI
4287.	WORLEY PARSONS OMAN ENGINEERING L.L.C	KANYAKUMARI
4288.	WORLEY PARSONS OMAN ENGINEERING L.L.C	KUWAIT
4289.	WORLEY PARSONS OMAN ENGINEERING L.L.C	MANGALORE
4290.	WORLEY PARSONS OMAN ENGINEERING L.L.C	MUMBAI
4291.	WORLEY PARSONS OMAN ENGINEERING L.L.C	MUSCAT
4292.	WRIGLEY INDIA PVT. LTD.	BANGALORE
4293.	WS ATKINS & PARTNERS OVERSEAS	SHARJAH
4294.	WS ATKINS INDIA PVT. LTD.	BANGALORE
4295.	XAVIENT INFORMATION SYSTEMS PVT. LTD.	GHAZIABAD
4296.	XAVIENT INFORMATION SYSTEMS PVT. LTD.	NEW DELHI
4297.	XAVIENT INFORMATION SYSTEMS PVT. LTD.	PATNA
4298.	XCHANGING	SINGAPORE
4299.	XCHANGING TECHNOLOGIES PVT. LTD.	INDORE
4300.	XENTO SYSTEMS LTD.	PUNE
4301.	XEROX INDIA LTD.	ALUVA
4302.	XEROX INDIA LTD.	BANGALORE
4303.	XEROX INDIA LTD.	CHENNAI
4304.	XEROX INDIA LTD.	COCHIN
4305.	XEROX INDIA LTD.	NEW DELHI
4306.	XEROX SERVICES - INDIA	KOCHI
4307.	XL GROUP LTD.	NEW DELHI
4308.	XOMOX SANMAR LTD.	MADURAI
4309.	XOMOX SANMAR LTD.	TRICHIRAPALLI
4310.	XORIAN T SOLUTIONS PVT. LTD.	MUMBAI
4311.	XPANXION INTL. PVT. LTD.	PUNE
4312.	XYBION INDIA PVT. LTD.	CHENNAI
4313.	YAHOO ! SOFTWARE DEVELOPMENT IND. P LTD.	BANGALORE
4314.	YALAMANCHILI SOFTWARE EXPORTS	CHENNAI
4315.	YANFENG VISTEON INDIA AUTOMOTIVE TRIMS	PANCHAMAHAL
4316.	YANTRA SOLUTIONS	THIRUCHENGODE
4317.	YASH TECHNOLOGIES PVT. LTD.	KOLAR
4318.	YASHODA HOSPITAL	HYDERABAD
4319.	YATRA ONLINE PVT. LTD.	HYDERABAD
4320.	YAZAKI WIRING TECHNOLOGIES INDIA PVT. LTD.	CHENNAI
4321.	YERLA DENTAL COLLEAGE & HOSPITAL	NAVI MUMBAI
4322.	YODLEE INFOTECH PVT. LTD.	BANGALORE
4323.	YOROZU JBM AUTOMOTIVE TAMILNADU PVT. LTD.	TRICHY
4324.	YUME ADVERTISING PVT. LTD.	CHENNAI
4325.	ZAMIL ITG PVT.LTD.	PUNE
4326.	ZAMIL AIRCONDITIONERS	DAMMAM
4327.	ZAMIL COOLCARE (ZAMIL PROJECTS)	CHENNAI
4328.	ZEBROST TECHNOLOGIES PVT. LTD.	PUNE
4329.	ZEN TECHNOLOGIES LTD.	HYDERABAD
4330.	ZENER FIRE & SECURITY LLC	DUBAI
4331.	ZENMONICS SOFTWARE PVT. LTD.	PUNE
4332.	ZENSAR TECHNOLOGIES PVT. LTD.	DHULE
4333.	ZENSAR TECHNOLOGIES PVT. LTD.	PUNE
4334.	ZENSAR TECHNOLOGIES PVT. LTD.	SATARA
4335.	ZEON SOLUTIONS PVT. LTD.	NAGPUR
4336.	ZEUS SYSTEMS PVT. LTD.	CUDDALORE

4337.	ZF ELECTRONICS TVS INDIA PVT.LTD.	MADURAI
4338.	ZF INDIA PVT.LTD	PUNE
4339.	ZF LENKSYSTEME INDIA PVT. LTD.	PUNE
4340.	ZF WIND POWER PVT. LTD.	COIMBATORE
4341.	ZIETA TECHNOLOGIES PVT. LTD.	BANGALORE
4342.	ZIGNASA EDUCATION SERVICE PVT. LTD.	BALLIA
4343.	ZODIAC SEATS UK	PUNE
4344.	ZOHO CORPORATION PVT. LTD.	CALICUT
4345.	ZOHO CORPORATION PVT. LTD.	CHENNAI
4346.	ZOHO CORPORATION PVT. LTD.	KOVILPATTI
4347.	ZS ASSOCIATES INDIA PVT. LTD.	GURGAON
4348.	ZYCUS INFOTECH PVT. LTD.	PANVEL
4349.	ZYNGA GAME NETWORK INDIA PVT. LTD.	MAVELIKARA

## LIST OF PROJECT WORK SUBMITTED BY STUDENTS UNDER THE WORK INTEGRATED LEARNING PROGRAMMES IN THE YEAR 2013

### B.S. (Engineering Technology)

1. 130 A INDUCTIVE COIL TESTING MACHINE
2. 3D CONNECTION DESIGN AND ADVANTAGES IN PRODUCTION DRAWINGS
3. AC-AC CENTRAL BATTERY EMERGENCY LIGHTING SYSTEM FOR HIGH RISE BUILDINGS
4. ADAPT TECHNICAL TRAINING STRATEGY AND PROCESS REDESIGN TO REDUCE CAPABILITY GAPS IN CUMMINS MIDDLE EAST REGION BY USING SIX SIGMA TOOL
5. ADVANCED AUXILIARY WARNING SYSTEM
6. ADVANCED ULTRASONIC EXAMINATION (TOFD) IN LIEU OF RADIOGRAPHY.
7. ADVANCEMENT OF PROJECT DESIGN VIA TOTAL QUALITY MANAGEMENT
8. ADVANCES IN INSTRUMENTATION DETAIL ENGINEERING
9. AIRCONDITIONING DESIGN OF 200000SQFT OF OFFICE SPACE AT NOIDA UP.
10. AN ATTEMPT TO ACHIEVE OPERATIONAL EXCELLENCE AT ASIANA HOTEL, DUBAI
11. AN INTELLIGENT MCC HAVING PROFIBUS COMMUNICATION REPLACING CONVENTIONAL MCC
12. ANALYTICAL APPROACH & VALIDATION OF HEATSINK
13. ANALYZE THE AUTOMOTIVE ASSEMBLY PROCESS USING VIRTUAL MANUFACTURING
14. ANALYZING THE IMPACT OF PROCESS CHANGE ON FIBRE TENACITY.
15. ASSEMBLY AUTOMATION IN UNIGRAPHICS CAD SOFTWARE
16. ASSET INTEGRITY MANAGEMENT SYSTEM
17. AUTOMATED MACHINE FOR FEEDING AND CUTTING OF PRINTED SHEETS.
18. AUTOMATED MATERIAL HANDLING SYSTEM
19. AUTOMATED TESTER/SIMULATOR FOR TESTING AUTOMOTIVE DASHBOARD INSTRUMENT PANEL CLUSTER (IPC).
20. AUTOMATION OF A SIMPLE CONVEYING LINE USING PLC.
21. AUTOMATION OF INLINE X-RAY MACHINE ( MVXR5000) WITH BAGAGE HANLDING SYSTEM PLC.
22. AUTOMATION OF LENGTH CONTROL SYSTEM
23. AUTOMOTIVE ELECTRICAL PROCESS FAILURE IDENTIFICATIONS & THEIR SOLUTION
24. BASIC VALVE SIZING FOR CHECK VALVE APPLYING DESIGN FOR SIX SIGMA METHODOLOGY
25. BOLTED JOINT DESIGN FOR GAS TURBINE
26. BUBBLE BARRIER SYSTEM AND OIL SPILL DETECTION SYSTEM
27. BUILD NEW ROBUST DESIGN SPEAKERS FOR 4-WHEELER
28. BUILDING INFORMATION MODEL (BIM) IN MODERN CONSTRUCTION INDUSTRY
29. BUTT WELDING SCRAP REDUCTION IN LP RIM
30. CAPACITY ENHANCEMENT IN ROBOT CELL
31. CAR QUALITY IMPROVEMENT THROUGH SPECIFICATION CONTROL & SCRATCH REDUCTION
32. CASTING DEFECT ANALYSIS OF THE VALVES
33. CHALLENGES AND SOLUTIONS IN CLEANROOM PROJECT MANAGEMENT
34. CHEMICAL OPTIMIZATION IN REVERSE OSMOSIS PLANTBY BETTER PROCESS CONTROL
35. CHILLER MODIFICATION - MICRO CONTROLLER TO PLC
36. CHLORINATION CONTROL AND OPTIMIZATION OF CHEMICAL USAGE IN POTABLE WATER SYSTEM
37. COAL BASED THERMAL POWER PLANT PERFORMANCE OPTIMIZATION
38. COLLECTION AND CLARIFICATION OF INTERPRETATION FOR ASME SEC. IX
39. COMPETITIVE TCO ( TOTAL COST OF OWNERSHIP ) FOR PLASTIC PART.
40. COMPRESSOR PIPING DESIGN

41. COMPUTATIONAL FLUID DYNAMICS (CFD)SIMULATIONS AND ANALYSIS OF AUTOMOTIVE HEADLAMP.
42. CONSTRUCTION PLANNING AND CONTROL SYSTEMS IN A CONSTRUCTION PROJECT TO OPTIMIZE COST
43. CONSTRUCTION WASTE MANAGEMENT & RECYCLING
44. CONTINUOUS EMISSION MONITORING SYSTEM IN BOILER AND GAS TURBINE STACK
45. CONTROLLING OF HVAC USING PXM20
46. CONVERSION OF BILAYER TABLET COMPRESSION MACHINE INTO SINGLE LAYER COMPRESSION MACHINE
47. CORROSION PREVENTION IN CAR BODY
48. COST EFFECTIVE AND TIMELY PROCUREMENT THROUGH ANALYTICAL SURVEY
49. COST EFFECTIVE PROCESS LAYOUT DESIGN FOR SHELL & TUBE VAPOURISERS (STV)
50. COST REDUCTION IN INDIRECT MATERIALS
51. COST REDUCTION IN LCV Y1 AXLES
52. COST SAVING BY INTRODUCING LEAN MANUFACTURING TECHNIQUES
53. CRITICALITY OF EARTHING & LIGHTNING IN INDUSTRY
54. CSI ( CUSTOMER SATISFACTION INDEX ) IN AUTOMOBILE INDUSTRY
55. CUSTOMER COMPLAINT REDUCTION
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89. DESIGNING OF PNEUMATIC CONTROL PANEL FOR WELDING OF DOOR ASSEMBLY OF LTV
90. DESIGNING, IMPLEMENTATION, INSTALLATION AND COMMISSIONING OF FOUNDATION FIELDBUS TECHNOLOGY
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353. REDUCING RPN RATING
354. REDUCING THE AUXILIARY POWER CONSUMPTION OF GAS TURBINE
355. REDUCTION OF CUSTOMER COMPLIANT AND PROCESS REJECTION IN CYLINDER HEAD LINE KAPPA ENGINE
356. REDUCTION OF TRUCK QUEUING TIME FOR INCOMING MATERIALS IN H2
357. REDUCTION OF TURNAROUND TIME IN IT ASSET DELIVERY USING SIX SIGMA METHODOLOGY
358. REDUCTION OF TYRE DEFECTS AND SCRAP RELATED TO INNER LINER BLISTER & BLOWS
359. REDUCTION OF WIP IN TUBULAR COMPONENT DIVISION
360. REJECTION ANALYSIS USING PAIRED COMPARISION TOOL
361. REMOTE CONTROLLING & MONITORING OF AN EQUIPMENT
362. REMOTE MONITORING SYSTEM FOR INDUSTRIAL UPS AND ENVIRONMENT
363. REPLACEMENT OF EXISTING EARTH WIRE WITH OPGW IN 132 KV DOUBLE CIRCUIT OVERHEAD LINE UNDER LIVE LINE CONDITION
364. REPLACING STEEL STABILINK TO FRP STABILINK
365. RESOLVING CENTER DEFECT ISSUE IN LAM-KIYO TOOL
366. RESOURCE LEVELLING USING GENETIC ALGORITHM WITH IT TOOL
367. ROOT CAUSE ANALYSIS & FAILURE ANALYSIS OF LIFT PIN HOLDER IN SUBSTRATE PROCESSING SYSTEMS
368. RTU/SCADA SYSTEM REPLACEMENT FOR ZAKUM AND UMMSHAIF OIL FIELD, ADMA-OPCO, ABUDHABI
369. SAFETY INSTRUMENTED SYSTEM
370. SAFETY MANAGEMENT IN CONSTRUCTION PROJECTS
371. SAFETY MEASURES AT NUCLEAR POWER PLANTS IN INDIA
372. SELECTION OF VARIABLE SPEED DRIVES FOR DRILLING RIG APPLICATIONS
373. SERVICE CONSOLIDATION
374. SERVICE CONTRACT FOR MERCEDES-BENZ CITY BUSES IN INDIA.

- 375. SHIP SUPPLY MANAGEMENT
- 376. SMART CARD READER WITH ELECTRO MECHANICAL EJECTION SYSTEM.
- 377. SMART HOME
- 378. SMD PNEUMATIS SYSTEM UP-GRADATION
- 379. SOFTWARE PRODUCT DEVELOPMENT LIFE CYCLE
- 380. SOLVING HORN DISCONTINUITY PROBLEM THROUGH QUALITY TOOL APPLICATION
- 381. SPINDLE THERMAL ERROR MEASUREMENT AND COMPENSATION SYSTEM FOR THE CNC MACHINE TOOLS
- 382. STATISTICAL PROCESS CONTROL IN MANUFACTURING
- 383. STEAM PROFILE BOX
- 384. STRESS ANALYSIS OF PIPE LINE CONNECTED BETWEEN STATIC EQUIPMENT AND ROTARY EQUIPMENT
- 385. STUDIO&CONTROL ROOM SETUP WITH PLAYOUT&AUTOMATION SERVER FOR ELECTRONIC NEWS FACILITY
- 386. STUDY OF AIR INTAKE SYSTEM IN GAS TURBINE
- 387. STUDY OF CO2 EMISSION CONTROL TECHNOLOGY FROM INDUSTRIAL POLLUTANTS
- 388. STUDY OF DESIGN, CONSTRUCTION AND APPLICATION OF MULTISTAGE MANUAL OPERATED PNEUMATIC DIRECTION CONTROL VALVE
- 389. STUDY OF LC INSTRUMENT CLUSTER SOLUTION FOR 12V APPLICATION.
- 390. STUDY OF MRP PROCESS AT HMCL & BENCHMARKING WITH OTHER OEM'S
- 391. STUDY OF MULTILEVEL 3 PHASE GRID TIE INVERTER
- 392. STUDY OF NEURALLY ADJUSTED VENTILATORY ASSIST (NAVA)
- 393. SUBSTATION - DESIGN & MANUFACTURING OF CONTROL& PROTECTION SYSTEMS.
- 394. SULZER ENGINE 'A' FRAME REPAIR AND SOLUTIONS
- 395. SUPERCAPACITOR AS AN ALTERNATE TO BATTERY
- 396. SUPPLY CHAIN CAPACITY ENHANCEMENT FOR BUS BODY
- 397. SUPPLY CHAIN TRANSFORMATION THROUGH LEAN PRINCIPLES
- 398. SYSTEMATIC METHODOLOGY TO IDENTIFY GAS LEAKS IN HYDROGEN-COOLED GENERATORS
- 399. TESTING & COMMISSIONING OF EARTHING TRANSFORMER (11000/400 V, 500 KVA)
- 400. THREAD GALLING ISSUE ON THE ICD CAP WITH WELD RING
- 401. TO DEVELOP AND MARKET THE NEW PRODUCT –TEGA POLYURETHANE SKIRT SEALING SYSTEM
- 402. TO DEVELOPE A WASH ALGORITHM CONFIGURATION TO OVERCOME THE CUSTOMER COMPLAINT.
- 403. TO ELIMINATE CORRECTION BROACHING IN WORM GEAR AFTER HEAT TREATMENT.
- 404. TO ELIMINATE ODOMETER JAM IN 2W MECHANICAL SPEEDOMETER
- 405. TO INCREASE THE PRODUCTIVITY IN MEMBRANE PANELS (BOILER PRESSURE PARTS) BY REDUCING THE CYCLE TIME INVOLVED FOR FIN POLISHING OPERATION.
- 406. TO OPTIMIZE THE POWER OUTPUT OF THE DG SET FOR HOT MIX PLANT
- 407. TO REDESIGN THE SEMI AUTOMATIC INTO AUTOMATIC NUMBERING BOX SYSTEM
- 408. TO REDUCE THE CEMENT FREIGHT LOSSES IN BCN – HL TYPE RAKES BY MODIFYING EXISTING WAGON LOADING MACHINES
- 409. UMTS AUTOMATED NETWORK OPTIMIZATION
- 410. UNDERSTANDING THE FACTOR INFLUENCING DECISION MAKING IN HIGH TECHNOLOGY PRODUCTS & SYSTEM.
- 411. UNIVERSAL LOW FREQUENCY RFID TAG READER
- 412. UP GRADATION OF TURBINE FIRE PROTECTION SYSTEMS.
- 413. USE DISTILLATION PURGE AS A FUEL (COMBINED WITH FUEL OIL) FOR BOILER.
- 414. VAPOR RECOVERY SYSTEM AT FUEL FILLING STATION
- 415. VARIABLE FREQUENCY DRIVE FOR HVAC
- 416. VARIABLE FREQUENCY DRIVE SYSTEM FOR ENERGY SAVING (PROJECT: SHAMS GATE DISTRICT TOWERS,ABUDHABI)
- 417. VEHICLE ELECTRIC PROGRAM (VEP) ERROR IMPROVEMENT

- 418. VEHICLE TRACKING & MANAGEMENT USING DIFFERENT METHODS(USING GPS AND OTHER RADIO NAVIGATION SYSTEM)
- 419. VENTILATOR WITH INTELLIGENT NITRIC OXIDE DELIVERY SYSTEM
- 420. VOLKSWAGEN - 1.5 TDI NEW ENGINE ASSEMBLY PLANT LOGISTICS AREA EVALUATIONS AND IMPLEMENTATION.
- 421. WANKEL ENGINES FOR UAVS (UNMANNED AERIAL VEHICLES)
- 422. WIRELESS NETWORKING
- 423. YARD MANAGEMENT SYSTEM
- 424. YIELD IMPROVEMENT THROUGH SIX SIGMA METHODOLOGY

### **B.S. (Information System)**

- 425. AUTHENTICATION AND AUTHORIZATION TEST TOOL FOR SSO BASED APPLICATIONS
- 426. COIN DISPENSER
- 427. CONTACT CENTER APPLICATIONS DEPLOYMENT & DEVELOPMENT USING UCCX
- 428. CORPORATE EMAIL ACCESS FOR ROAMING AND MOBILE USERS WITHOUT VPN CONNECTION.
- 429. DATA MANAGEMENT USING NAS APPLIANCES
- 430. DATACENTRE SHIFTING AND MIGRATION TO NEW NETWORK
- 431. DEFECT PRONENESS PREDICTOR
- 432. DEFECT TRACKING TOOL
- 433. DESIGN & DEVELOPMENT OF HIGH AVAILABILITY ENVIRONMENT (CLUSTER) FOR SOLARIS CONTAINERS.
- 434. DESIGN AND IMPLEMENTATION OF L3 VPN OVER MPLS NETWORK
- 435. DESIGN AND IMPLEMENTATION OF MEDIATION PLATFORM FOR SOFTRX CDRS
- 436. DEVELOPMENT OF PCB PLANNER SOFTWARE
- 437. DISASTER RECOVERY SOLUTION (DESIGNING AND IMPLEMENTING) USING XP SERIES SAN STORAGE
- 438. DOCUMENT MANAGEMENT SYSTEM
- 439. HIGH AVAILABILITY AND DISASTER RECOVERY SOLUTION USING SERVICE GUARD METRO CLUSTERS
- 440. HIGH AVAILABILITY SOLUTIONS FOR MISSION CRITICAL APPLICATIONS
- 441. HP SERVER VIRTUALIZATION
- 442. IMPLEMENTATION OF 3-TIER ARCHITECTURE IN CLOUD
- 443. IMPLEMENTING JMETER FRAMEWORK FOR HTTP/HTTPS SERVER PERFORMANCE TESTING
- 444. IMPROVING SOFTWARE QUALITY THROUGH MEASUREMENTS, METRICS AND OPTIMAL SOFTWARE PROCESSES
- 445. INTERNETWORKING DIFFERENT OFFICE LOCATIONS BY USING LAN EXTENSION & SQL SERVER FAILOVER CLUSTER TECHNOLOGY
- 446. NEW-AGE CONSTRAINTS ON PRINTED CIRCUIT BOARD LAYOUT DESIGN FOR EMBEDDED SYSTEMS (A CASE STUDY AND DEVELOPMENT OF SOFTWARE TO FACILITATE THE DESIGN PROCESS)
- 447. POWERVM VIRTUALIZATION SOLUTION
- 448. PROJECT MANAGEMENT
- 449. REMOTE SERVER MONITORING SYSTEM FOR CORPORATE DATA CENTERS
- 450. RRE PVR MANAGEMENT PORTAL
- 451. SIMULATION OF ARTIFICIAL NEURAL NETWORKS FOR CHARACTER RECOGNITION
- 452. SITE TO SITE VPN ( IPSEC OVER GRE TUNNEL)
- 453. STORAGE AREA NETWORK (SAN) PATH MONITORING AND REPORT PATH FAULTS FOR LINUX SYSTEMS
- 454. STORAGE AREA NETWORK IMPLEMENTATION WITH STORAGE AND SERVER VIRTUALIZATION USING BEST PRACTICE
- 455. TESCO MOBILE ONEAPP SOFTWARE ARCHITECTURE
- 456. VIRTUALIZATION HEALTH CHECK ADVISOR FOR IBM POWERVM

## **B.S. Process Engineering**

457. CALCULATE THE HEAT LOAD OF DRYER-3&4 AND SUGGEST MODIFICATIONS IN EXISTING SYSTEM FOR REDUCING HP STEAM CONSUMPTION BY 10%.
458. CONDUCT STUDY/EXPERIMENTS TO IMPROVE CS<sub>2</sub> RECOVERY FROM OIL SCRUBBER AT CS<sub>2</sub> PLANT AND SUGGEST MODIFICATIONS IN EXISTING DESIGN.
459. CONTROL STRATEGY OF LEAD CONTENT IN ANODE AT BIRLA COPPER
460. COPPER LOSS CONTROL IN DISCARD SLAG
461. COPPER LOSS CONTROL IN MITSUBISHI TECHNOLOGY MITSUBISHI TECHNOLOGY
462. EFFECT OF ANODE QUALITY ON CURRENT EFFICIENCY IN ELECTRO REFINING OF COPPER
463. FACTORS AFFECTING COPPER EXTRACTION FURNACES OF MITSUBISHI TECHNOLOGY
464. FLASH SMELTING FURNACE SLAG CHEMISTRY OPTIMIZATION
465. IMPROVE CONSISTENCY IN FIBRE OPU ON M/C-3 BY STUDYING VARIABILITY IN MEASUREMENT SYSTEM AS WELL AS IN AFT OPERATION
466. IMPROVEMENT IN SECONDARY GAS SCRUBBING SYSTEM
467. MINERALOGICAL PHASES IN COPPER CONCENTRATE & THEIR EFFECT ON COPPER SMELTING
468. PERFORMANCE OF HEAT EXCHANGER AND IMPACT ON ENERGY
469. REDUCTION IN CHARCOAL CONSUMPTION RATIO FROM 0.257 T /TCS<sub>2</sub> TO 0.248 T/TCS<sub>2</sub> FOR CS<sub>2</sub> DEPT.
470. STUDY OF WASTE HEAT RECOVERY SYSTEM & BOILER FAILURE ANALYSIS
471. SULPHUR RECOVERY IN SAP PLANT
472. TO CALCULATE THE HEAT LOAD OF MATURING DRUM AND XANTHATOR'S AND SUGGEST MODIFICATIONS IN EXISTING SYSTEM FOR REDUCING ENERGY CONSUMPTION BY 10%.
473. TO CARRY OUT BENCHMARKING OF CO<sub>2</sub> REMOVAL SYSTEM WITH OUR PREVIOUS BEST, IDENTIFY AREAS OF IMPROVEMENT, ENERGY CONSUMPTION PER NM<sup>3</sup> OF CO<sub>2</sub> PRODUCTION AND PLAN CORRECTIVE ACTION TO HAVE BEST PERFORMANCE OF CO<sub>2</sub> REMOVAL SYSTEM
474. TO CARRY OUT BENCHMARKING OF FEED AND FUEL ENERGY CONSUMPTION (INCLUDING STEAM SUPER HEATER) WITH OUR OWN BEST, IDENTIFY THE AREAS OF IMPROVEMENT, ACTION PLANNING AND TAKING CORRECTIVE MEASURE
475. TO IMPROVE THE CONVERTER TUYERE REFRACTORY LIFE
476. TO REDUCE SYNTHESIS LOOP PRESSURE IN AMMONIA PLANT
477. TO STUDY THE EXISTING DESIGN OF SPINNING MACHINE EXHAUST SYSTEM AND SUGGEST MODIFICATIONS IN EXISTING DESIGN FOR IMPROVING THE WORK ROOM ENVIRONMENT.
478. TO STUDY THE EXISTING SYSTEM OF LINE-2 AND SUGGEST MODIFICATIONS TO IMPROVE MOISTURE WITHIN 10-12% RANGE BY 5%
479. TO STUDY THE EXISTING WASTE HEAT RECOVERY SYSTEM (CONDENSATE & HOT AIR) AND SUGGEST MODIFICATIONS IN EXISTING SYSTEM FOR REDUCING ENERGY CONSUMPTION BY 10%.
480. WIP CONTROL IN SMELTER-1

## **B.S. (Power Engineering)**

481. A TECHNICAL STUDY ON GENERATOR OVERHAULING
482. ACCIDENT PREVENTION IN POWER PLANT
483. ANALYSIS & EXECUTION OF COOLING WATER PUMP DURING LEAN TIME OPERATION
484. ANALYSIS OF ENHANCE LIFE OF AFBC BOILER BED COILS.
485. ANALYSIS OF POWER GENERATION PROCESS USING PET COKE ALONG WITH COAL IN A CFBC BOILER
486. APPLICATION OF RESIDUAL LIFE ASSESSMENT TECHNIQUES TO POWER TRANSFORMER.
487. AUTO-CORRECTION OF POWER FACTOR AT 132 KV MAIN RECEIVING SUB-STATION
488. AUTOMATIC CONTROL FOR COOLING TOWER FAN
489. AUXILIARY POWER CONSUMPTION OPTIMIZATION OF COAL BASE POWER PLANT
490. AUXILIARY POWER SAVING AT 250 MW UNIT #8
491. AUXILIARY POWER SAVING AT PH#6
492. AUXILLIARY COOLING WATER OPTIMIZATION & ENERGY CONSERVATION IN ACW PUMPS AT VIKRAM CEMENT WORKS (CPP), THROUGH WATER BALANCING & VFD INSTALLATION
493. AUXILLIARY POWER REDUCTION
494. BOILER ERECTION PROBLEM SOLVING OF 270MW POWER PROJECT
495. CENTRALIZE OPERATION BY INTEGRATION OF VARIOUS CONTROL SYSTEM
496. CHEMICAL CLENING OF BOILER TUBE,FEED WATER CONDANSATE SYSTEM
497. COAL BLENDING: EFFECT ON POWER PLANT OPERATION & COST EFFECTIVENESS
498. COAL FIRED BOILER EFFICIENCY MEASUREMENT AND IMPROVEMENT IMPROVEMENT
499. CONDENSATE RECOVERY FROM 305MW POWER PLANT STEAM TRAP
500. CONTROL SYSTEM CONSISTENCY ENHANCEMENT FOR BASE PLANT (77MW)
501. CONVERSION OF HFO BASED D.G. POWER PLANT TO COALGAS
502. DESIGN AND ENGINEERING OF GRAVITY LUBRICATION PROVISION FOR 35 MW STEAM TURBINE GENERATOR.
503. DIESEL ENGINE EFFICIENCY ENHANCEMENT
504. EFFICIENCY IMPROVEMENT AND ENERGY CONSERVATION IN DISTRIBUTION CAPEX
505. EFFICIENCY IMPROVEMENT AND ENERGY CONSERVATION IN THERMAL POWER PLANT.
506. EFFLUENT WATER TREATMENT TO ACHIEVE ZERO EFFLUENT WATER DISCHARGE AND MEET ENVIRONMENTAL NORMS.
507. ENERGY CONSERVATION AND PERFORMANCE IMPROVEMENT OF COOLING TOWER FANS BY INSTALLING VFD.
508. ENERGY CONSERVATION IN COMPRESSED AIR SYSTEM
509. ENERGY CONSERVATION IN PACKING PLANT
510. ENERGY CONSERVATION IN ROLLER PRESS & CEMENT MILL SECTION
511. ENERGY MANAGEMENT & CONSERVATION AT TATA POWER, DHARAVI RECEIVING STATION PREMISES.
512. ENERGY MANAGEMENT STUDY
513. ENERGY OPTIMIZATION & ITS MANAGEMENT IN THERMAL POWER STATION
514. ENERGY SAVING PROPOSAL BY CONDUCTING ENERGY AUDIT AT POWER PLANT
515. ENVIRONMENT – GREENOLUTIONS (“POWERING A GREEN WORLD” AN INITIATIVE BY TATA POWER )
516. ESSAR POWER COAL CONVERSION PROJECT.
517. ESSENTIALS OF PROJECT MANAGEMENT OF POWER SECTOR INDUSTRY
518. ESSENTIALS OF WIND CONTRACT FROM OWNER’S (INVESTOR) PERSPECTIVE
519. FAILURE & PERFORMANCE ANALYSIS OF CRITICAL PUMP DRIVES
520. FAILURE ANALYSIS & DESIGN MODIFICATION OF SALAYA 2\*600MW PF BOILER
521. FIRE PREVENTION & PROTECTION SYSTEM IN COAL HANDLING PLANT
522. FPI INDICATION THROUGH SMS DURING TRIPPING
523. GAS INSULATED SWITCHGEAR
524. IMPROVEMENT IN BOILER PERFORMANCE

525. IMPROVEMENT IN RELIABILITY OF COAL HANDLING PLANT EQUIPEMENT BY ADOPTION OF TPM(TOTAL PRODUCTIVE MAINTENANCE)
526. IMPROVEMENT OF COAL MILL SYSTEM IMPROVEMETN OF COAL MILL SYSTEM
527. IMPROVEMENT OF EMISSION CONTROL WITH INPUT POWER OPTIMIZATION IN ESPS
528. IMPROVEMENT OF PLF
529. IMPROVEMENT PROJECT ON UNIT -1 HEAT RATE (525MW THERMAL UNIT)
530. IMPROVING THE RELIABILITY OF COAL WASHERY
531. INCREASING AIR COOLED CONDENSER PERFORMANCE INTHERMAL POWER PLANT
532. INCREASING COOLING TOWER PERFORMANCE
533. INCREASING STEAM TURBINE PERFORMANCE
534. INNOVATIVE ,INTEGRATED SERVICES TO DEVELOP AND MANAGE POWER GENERATION PROJECTS.
535. INSTALLATION OF INTELLIGENT AIR FLOW CONTROLLERS FOR INSTRUMENT AND SERVICE AIR COMPRESSORS FOR OPTIMIZATION OF AIR AND REDUCTION IN PLANT AUXILIARY CONSUMPTION.
536. INTEGRATION OF EXISTING 515MW ELECTRICAL SYSTEM WITH NEW COAL FIRED PROJECT FOR COST OPTIMIZATION
537. NUMERICAL RELAY PROTECTION & SUBSTATION AUTOMATION SYSTEM
538. OPERATION, MAINTENANCE & INTERLOCKS OF ESP (ELECTROSTATIC PRECIPITATOR) PROJECT WORK
539. OPTIMISATION OF COMPRESSED AIR ENERGY IN THERMAL POWER PLANT.
540. OPTIMIZATION OF PRE-CLINCKERIZATION ELECTRICAL ENERGY CONSUMPTION
541. PERFORMANCE ANALYSIS & IMPROVEMENT OF COOLING WATER SYSTEM
542. PERFORMANCE EVALUATION & IMPROVEMENT OF COOLING TOWER OF 600 MW SUB-CRITICAL THERMAL POWER PLANT
543. PERFORMANCE EVALUATION & IMPROVEMENT OF LT SWITCHGEAR OF 400KV SWITCHYARD THERMAL POWER PLANT
544. PERFORMANCE OPTIMAZITATION OF HEAT RECOVERY STEAM GENERATOR BY REDUCING HEAT LOSSES
545. PF BOILER EFFICIENCY MANAGEMENT
546. POLLUTION AND EMISSION CONTROL
547. POWER SYSTEM OPERATION AND CONTROL
548. POWER TRANSFORMER INSTALLATION AND RESOLUTION OF PROBLEMS DURING TRANSFORMER OVERHAUL
549. PROJECT MANAGEMENT AND EXECUTION OF 33 KV DOUBLE CIRCUIT RIVER WATER INTAKE LINE
550. PROJECT MANAGEMENT AND EXECUTION OF EFFLUENT TREATMENT PLANT
551. REDUCTION IN CITY WATER (DRINKING WATER)CONSUMPTION IN OPERATION AREA AND SAVING OUR ENVIRONMENT
552. REDUCTION IN CYCLE TIME FOR ROUTINE MAINTENANCE OF DISTRIBUTION TRANSFORMERS
553. REDUCTION IN OEM PROBLEMS FOR ACHIEVING "ZERO DEFECTS" IN DISTRIBUTION NETWORK.
554. REDUCTION IN SP. POWER CONSUMPTION IN CM-1
555. REDUCTION OF AUX.POWER CONSUMPTION IN A THERMAL POWER PLANT (92MW)
556. REDUCTION OF AUXILARY POWER CONSUMP IN THERMAL POWER PLANT.
557. REDUCTION OF FLUE GAS EMISSION
558. REDUCTION OF LDO CONSUMPTION
559. REDUCTION OF SPECIFIC RAW WATER CONSUMPTION IN THERMAL POWER PLANT
560. RELIABILITY IMPROVEMENT OF AIR COMPRESSOR IN POWER PLANTS.
561. RELIABILITY IMPROVEMENTS & ENERGY CONVERSATION IN SEAWATER DESALINATION PLANT
562. RELIABILITY OF BURNER MANAGEMENT SYSTEM FOR COAL FIRED BOILERS
563. RELIABILITY STUDY OF CONTROL SYSTEM TO ENHANCE 325 MW POWER PLANT AVAILABILITY



- 564. ROTARY AIR-PREHEATER (RAPH) PERFORMANCE MEASUREMENT & IMPROVEMENT
- 565. SAFETY AT TROMBAY THERMAL POWER STATION
- 566. SAVING AUXILIARY POWER CONSUMPTION DURING LONG OUTAGES AND EXISGENCIES.
- 567. SCADA SYSTEM CONTROL OF 400KV SWITCHYARD
- 568. SHIFTING HP-LP BYPASS CONTROLS TO MAIN DCS SYSTEM
- 569. SHORT CIRCUIT ANALYSIS AND PROTECTION RELAY COORDINATION OF 220MW PLANT
- 570. SOLAR WATER PURIFICATION BY THERMAL METHOD.
- 571. STEAM & POWER COORDINATION CONTROL
- 572. STG EFFICIENCY MEASUREMENT AND IMPROVEMENT
- 573. STUDY AND RECOMMEND, GAS TURBINE INLET AIR COOLING METHOD SUITABLE FOR TROMBAY UNIT-7
- 574. STUDY OF FREQUENT FAILURE OF GT BEARING
- 575. STUDY OF TRANSFORMERS & DISTRIBUTION LOSSES IN AN ELETRICAL DISTRIBUTION SYSTEM OF 90MW CEMENT PLANT
- 576. SWAS RECOVERY SYSTEM.
- 577. SYNCHRONIZING SCHEME IN RELATION TO POWER SYSTEM STABILITY AND UNINTERRUPTABLE POWER SUPPLY TO CEMENT PLANT AND POWER PLANT UNITS.
- 578. TO IMPROVE CHP OUTPUT AND HENCE REDUCING THE COST OF GENERATION OF CPP POWER ENABLING THE REDUCTION OF OVERALL COST OF CEMENT.
- 579. TO REDUCE BREAKDOWN OF LINE-1 & LINE-2 KILN
- 580. TO SUGGEST MEASURES TO REDUCE FUGITIVE DUST EMISSION FROM ASH SILOS TO MEET ENVIRONMENTAL NORMS.
- 581. UN-INTERRUPTED & RELIABLE OPERATION OF POWER SYSTEM DURING GRID DISTURBANCES.
- 582. UNIT #6 NEW ABB AVR COMMISSIONING.
- 583. UP GRADATION OF SLIP POWER RECOVERY SYSTEM
- 584. UTILIZATION OF SOOT BLOWING DRAINS
- 585. WASTE HEAT RECOVERY BOILER

**LIST OF DISSERTATION SUBMITTED BY STUDENTS UNDER THE WORK  
INTEGRATED LEARNING PROGRAMMES IN THE YEAR 2013**

**M.S. (Consultancy Management)**

1. A FRAMEWORK FOR UNDERSTANDING THE ROLE OF CONSULTING IN CSR INITIATIVES IN INDIA – A CASE STUDY
2. A STUDY ON CUSTOMER SATISFACTION OF L&T-SWITCHGEAR
3. AGILE PROJECT MANAGEMENT IN SOFTWARE DEVELOPMENT AND SERVICES
4. AUTOMATION OF POTATO COLD STORAGE
5. BUSINESS MODEL APPRAISAL OF A SMB-SIZED ENTERPRISE
6. BUSINESS PROCESS REENGINEERING TO IMPROVE EFFICIENCY AND EFFECTIVENESS OF A TECHNICAL CONSULTANCY
7. CHANGING DYNAMICS OF MEDIA & ENTERTAINMENT INDUSTRY IN EMERGING MARKETS (BRAZIL, RUSSIA, INDIA & CHINA)
8. CONSULTANCY FOR TELECOM 4G OSS / BSS PROJECT.
9. CREATING A FRAMEWORK FOR COUNTRY & INDUSTRY ANALYSIS
10. CREATING A SUSTAINABLE VALUE ENGINEERING FUNCTION IN PROJECT MANAGEMENT
11. CREATING HAPPINESS AT WORK PLACE
12. DATA QUALITY ISSUES AND DATA QUALITY TOOLS IN DATA WAREHOUSING
13. DECISION SUPPORT SYSTEM DESIGN OF EMPLOYEE PERFORMANCE APPRAISAL
14. DELIVERING EFFECTIVE KNOWLEDGE MANAGEMENT EMBEDDED WITH SECURITY
15. DESIGN MANAGEMENT OF UNDERWATER PLATFORM
16. DIVERSIFICATION – A STRATEGY BASED APPROACH TOWARDS EXPANSION OF BUSINESS HORIZON A CASE STUDY ON MECON'S EFFORT TO END THE QUAGMIRE.
17. E GOVERNANCE USING IT GOVERNANCE SOLUTION
18. EFFECTIVE KNOWLEGDE MANAGEMENT AT EMD & SALES APPLICATIONS
19. ENERGY OPTIMIZATION OF COMMERCIAL BUILDINGS VIA IBMS
20. ENTERPRISE CUSTOMER MODEL FOR RETAIL BANKING
21. ENTERPRISE DATAWAREHOUSE
22. ERP/ENTERPRISE APPLICATIONS' IMPLEMENTATION IN INDIA
23. FEASIBILITY ASSESSMENT ON IMPLEMENTING SINGLE SIGN ON FOR DEALER MANAGEMENT SYSTEMS
24. FEASIBILITY STUDY OF A RESIDENTIAL DEVELOPMENT IN CHENNAI
25. FRAUD RISK VULNERABILITY ASSESSMENT IN TCL
26. GENESIS OF LORENZO US
27. IMPACT OF KNOWLEDGE MANAGEMENT PRACTICES ON EFFECTIVE CLIENT SERVICING
28. IMPROVING IT PROJECTS THROUGH BETTER USE OF KNOWLEDGE AND RISK MANAGEMENT PROCESSES
29. IMPROVING RESOURCE EFFICIENCY IN TESTING PROCESS
30. INFO SECURITY ASPECTS AND HUMAN CHALLENGES OF MULTIPLE PASSWORDS
31. INTERACTIVE MARKETING: THE FUTURE OF DIGITAL MARKETING
32. MAJOR BANKING SOFTWARE IMPLEMENTATION PROCESS AND ISSUES (ISSUES, CONCERNS AND BENEFITS DRAWN – IMPLEMENTATION PROCESS)
33. MANAGING A PROFESSIONAL SERVICES FIRM
34. MANAGING KNOWLEDGE IN PROJECT ENVIRONMENTS
35. MARKET ANALYSIS OF ENERGY EFFICIENT HT MOTORS FOR WESTERN REGION (INDIA)
36. MARKET RESEARCH
37. MEASURES TO INCREASE THE UTILIZATION OF KNOWLEDGE MANAGEMENT SYSTEM (KMSS) IN SOFTWARE ORGANIZATION
38. MOBILITY TESTING ON CLOUD
39. NEED FOR CONSULTANCY MANAGEMENT (PRACTICES) IN THE DEFENCE SERVICES : AN ESSENTIAL PRIMER

40. ONE TOUCH BUILD AND DEPLOYMENT (OTBD) & ONE TOUCH VARIANCE REPORT (OTVR)
41. PPP PROJECTS IN HIGHWAYS SECTOR (INDIA) - A CRITICAL REVIEW
42. PROCESS IMPROVEMENTS IN E-COMMERCE CASH ON DELIVERY MODEL
43. PROJECT BRIDGE – TRANSFORMING AND BUILDING KNOWLEDGE
44. PROJECT MANAGEMENT OF IT SERVICE MANAGEMENT DATA TRANSITIONS PROJECTS
45. PROJECT ON KNOWLEDGE MANAGEMENT IN TODAY'S ORGANIZATIONS
46. PROPOSED MIXED DEVELOPMENT BUILDING TO BE LEED CERTIFICATION
47. QUALITY OF SERVICE IMPROVEMENT PROCESS FOR INTERCONNECT CALLS IN TELECOM SERVICES.
48. QUANTIFICATION OF CALIBRATION METRICS FOR EFFECTIVE PEOPLE PERFORMANCE MANAGEMENT
49. REDUCTION OF CARBON FOOTPRINTS THROUGH TQM IN TIRUMALA TIRUPATI DEVASTHANAM (TTD) PRASADAM PACKAGING
50. RESEARCH ON FINANCIAL SERVICES IT BUSINESS OPPORTUNITIES IN EMERGING MARKET AND STRATEGIES FOR BUSINESS EXPANSION
51. RISK MANAGEMENT APPROACH FOR CLOUD COMPUTING
52. SERVICE MANAGEMENT CONSULTING FOR PROCESS AND PERFORMANCE MANAGEMENT IN TELECOM TO IMPROVE QOS
53. SETTING UP A KNOWLEDGE MANAGEMENT SYSTEM IN THE ORGANIZATION WHICH IS EASY TO ACCESS AND WOULD BENEFIT THE EMPLOYEES.
54. SOFTWARE QUALITY ASSURANCE, AUTOMATION FRAMEWORKS
55. START OF AIRAAVAT TECHNOLOGIES PVT LTD
56. STRATEGIC PLAN FOR FEDERATED SYSTEM
57. STUDY AND OPTIMIZATION OF NOKIA'S INDIA DISTRIBUTION PROCESS
58. STUDY AND OPTIMIZATION OF PROJECT COMPLETION PROCESS AND TIME DURATION FOR CONSTRUCTION OF A HIGH RISE BUILDING
59. STUDY TO INCREASE EMPLOYEE VALUE PROPOSITION THROUGH EFFECTIVE ENGAGEMENT BETWEEN EMPLOYEE AND IMMEDIATE MANAGER
60. TELECOM SERVICE PROVIDER - BPR TO ENAHNCE CUSTOMER EXPERIENCE
61. TEST AUTOMATION- COMPARATIVE ANALYSIS BETWEEN OPEN SOURCE AND COMMERCIAL TOOLS
62. TO ANALYZE THE VARIOUS PROCESSES OF PROJECT PLANNING AND TRACKING FOLLOWED IN INFOSYS
63. TO ASCERTAIN THE DRIVERS OF PREFERENCE OF TEA AMONG HOT TEA SHOPS
64. TOWARDS ENERGY EFFICIENT LIGHTING AT SCS
65. USE OF RFID TECHNOLOGY FOR EFFICIENT STORES' MANAGEMENT
66. USER ID MANAGEMENT
67. VALUE PROPOSITION FOR FLSMIDTH PRODUCTS
68. WORK SHARE & PROJECT MANAGEMENT IN ENGINEERING AND DESIGN CONSULTANCIES
69. WORLD ENERGY OUTLOOK: GROWTH FOR INDIAN CONSTRUCTION INDUSTRY (WITH PERSPECTIVE TO L&T)

#### **M.S. (Manufacturing Management)**

70. A STUDY OF MECHANICAL PROPERTIES OF MICRO-ALLOYED STEEL FOR HEAVY DUTY APPLICATIONS
71. A STUDY ON PROCUREMENT TO PAY PROCESS WITH CUSTOMER AND VENDOR EVALUATION
72. A STUDY ON PROJECT & TOTAL QUALITY MANAGEMENT"
73. ACHIEVING OUT GOING QUALITY LEVEL IN OFF HIGHWAY TRUCK SUB ASSEMBLY VALUE STREAM
74. AN ANALYSIS OF THE MACHINING NEEDS OF THE AEROSPACE INDUSTRY
75. ANALYSE RECYCLING OF ENGINEERING PLASTICS & EVALUATE THE IMPACT ON MECHANICAL PROPERTIES
76. ANALYSIS & RESOLUTION OF ERECTION AND OPERATIONAL ISSUES IN 500MW STEAM CONDENSER; PROPOSING ALTERNATE DESIGN FOR FUTURE PRODUCTS.
77. ANALYSIS OF REAR FUSELAGE STRUCTURE ASSEMBLY TO OPTIMIZE THE STRUCTURE ASSEMBLY CYCLE TIME.

78. ANALYSIS ON IMPROVING THE AVAILABILITY OF 20 TORCH MEMBRANE PANEL WELDING MACHINE BY IDENTIFICATION, PROCUREMENT AND IMPLEMENTATION OF QUALITY, COST EFFECTIVE, MINIMUM MAINTENANCE WATER COOLED WELDING TORCHES
79. APPLICATION OF LEAN MANUFACTURING CONCEPT FOR XANTHATOR IN VISCOSE PROCESS
80. AUTOMATIC & INTEGRATED SPRAY LINE
81. AUTOMATION OF WATER FLOW FOR LIME SLACKER WEIGH FEEDER
82. BEHAVIORAL STUDY OF VEHICLE CRASH ON A RIGID BARRIER
83. BOTTLENECK WORKSTATION ELIMINATION IN LINE ASSEMBLY THROUGH PROCESS IMPROVEMENT
84. BUCKLING ANALYSIS AND TESTING OF COMPOSITE CYLINDER WITH GEOMETRICAL IMPERFECTION FOR AEROSPACE APPLICATION
85. BUSINESS MODEL FOR OUTSOURCING THE COMPONENT WASHING ACTIVITY TO THIRD PARTY FROM CATERPILLAR, HOSUR
86. CANOPY COST OPTIMIZATION IN COWL CABIN BY USING LEAN TOOLS
87. CANOPY DEVELOPMENT FOR EXCAVATOR
88. CAPACITY AUGMENTATION OF ROUND CASE AT MACHINE SHOP
89. CAPACITY ENHANCEMENT IN DUMP TRUCK SUB ASSEMBLIES THROUGH PROCESS IMPROVEMENT
90. CAPACITY ENHANCEMENT IN OHT SUB ASSEMBLIES THROUGH PROCESS IMPROVEMENT
91. CAPACITY ENHANCEMENT IN ROBOTIC TOP COAT PAINTING LINE FOR MULTI MODELS IN CABIN PAINT SHOP
92. CAPACITY ENHANCEMENT OF SCORPIO SC/DC BIW SHOP
93. CAPACITY REALIZATION & CYCLE TIME OPTIMIZATION OF NEW TRANSMISSION ASSEMBLY LINE CAPACITY REALIZATION & CYCLE TIME OPTIMIZATION OF NEW TRANSMISSION ASSEMBLY LINE CAPACITY REALIZATION & CYCLE TIME OPTIMIZATION OF NEW TRANSMISSION ASSEMBLY LINE
94. CHANGE OF DESIGN FOR GEAR THRUST WASHERS USED IN DIFFERENTIAL CASE ASSEMBLIES FOR REAR AXLES.
95. COMPARATIVE STUDY OF FINANCIAL STATEMENTS OF LARSEN AND TOUBRO LIMITED
96. COMPARISON OF INDIRECT HEATING SYSTEMS FOR COIR FIBER DRYER
97. COMPETENCY MAPPING FOR A LEADING TECHNICAL INSTITUTION TO ASSIST THE TALENT MANAGEMENT & ITS CONTINUOUS IMPROVEMENT
98. COMPUTER AIDED DESIGNING OF LOW MASS FLYWHEEL FOR DIESEL ENGINE
99. CONCEPT DESIGN OF REUSABLE SURGICAL STAPLER
100. CONDUCTING 'DESIGN FMEA' FOR THE POLYCARBONATE LUGGAGE TO IDENTIFY AND REDUCE THE RISK OF POTENTIAL FAILURES BY TAKING CORRECTIVE / PREVENTIVE ACTIONS THROUGH DESIGN OF EXPERIMENTS'
101. CONTINUOUS IMPROVEMENT PROCESS APPROACH IN DATA FLOW - BILL OF MATERIALS (BOM) IN MANUFACTURING INDUSTRY
102. CO-PROCESSING OF IRON OXIDE WASTE IN SINTERING PROCESS FOR POLLUTION CONTROL AND COST REDUCTION
103. COST BASE VALUE ANALYSIS ON METALLIC PARTS
104. COST OPTIMIZATION OF STEAM GENERATION BY USING BIO-FUEL FIRED BOILER
105. COST OUT OF PNEUMATIC DUCT FOR AIRCRAFT ENVIRONMENT CONTROL SYSTEM
106. COST OUT OF SHIFT YOKE ASSEMBLY IN HEAVY -DUTY TRANSMISSION USING SIX SIGMA TOOLS.
107. CPK IMPROVMENT OF QUALITY PARAMETERS FOR CARBON BLACK PRODUCTION
108. CRYOGENIC TREATMENT ON FRICTION WELDING OF SS 304L AND EN 8
109. CULTIVATING LEADERSHIP COMPETENCIES USING 6 DISCIPLINES OF BREAK THROUGH LEARNING (6D MODEL)
110. CUSTOMER HANDSET REPAIR IN TIME BY MOBILE HANDSET REPAIR FACTORY
111. CYCLE TIME REDUCTION IN HOUSING - COMMON RAIL PUMP
112. DAC ASSEMBLY LINE WASTES REDUCTION
113. DEFECT ELIMINATION IN HIGH ALUMINA CERAMIC TILE MOLDING PROCESS THROUGH ENGINEERING MEASURE
114. DEFINE THE PROCESS TO IDENTIFY THE CRITICAL KNOWLEDGE & TO CAPTURE IT
115. DELIVERY IMPROVEMENT AT BOSCH
116. DESIGN & DEVELOPMENT OF AUTOMATED VTU AIR LEAKAGE TESTING SYSTEM.

117. DESIGN & DEVELOPMENT OF AUTOMATIC ELECTRODE REGULATION IN ELECTRIC ARC FURNACE
118. DESIGN & DEVELOPMENT OF ROOF AIR CONDITIONING PARTS FOR MUV SEGMENT IN INDIA.
119. DESIGN & DEVELOPMENT OF SEATING SYSTEM FOR COMPACT VEHICLE
120. DESIGN & PROTOTYPING OF RUBBER DAMPING MODULE ASSEMBLY FOR SUBSEA STATION
121. DESIGN AND DEVELOPMENT OF LEAN MANUFACTURING SYSTEM IN EXPORT PACKAGING.
122. DESIGN AND DEVELOPMENT OF MECHANICAL SHAFT SEAL TO PREVENT THE LEAKAGE OF HELIUM GAS.
123. DESIGN AND DEVELOPMENT OF NEW BACK PANEL FOR WASHING MACHINE
124. DESIGN AND DEVELOPMENT OF NEW UNDER BASE FOR WASHER
125. DESIGN AND IMPLEMENTATION OF PACKAGING- DKD EXPORT CAR
126. DESIGN AND MODELLING OF FIXTURE FOR HANDLING OF PLUNGED IN COLUMN WELDING AND STUD WELDING OPERATION
127. DESIGN AND OPTIMIZATION OF STORAGE SOLUTIONS FOR FABRICATION WAREHOUSE
128. DESIGN AND REALIZATION OF A SMART BATTERY MANAGEMENT SYSTEM
129. DESIGN IMPROVEMENT BY TOLERANCE ANALYSIS IN HEAD LAMPS
130. DESIGN OF CUTOFF SURROUND STRUCTURE FOR WATER AND WASTE WATER TANK (WWT) IN THE FUSELAGE
131. DESIGN OF MIDDLE TRIM ASSEMBLY FOR CAFÉ DOUBLE WALL OVEN
132. DESIGN OF NEW TOOL AND PRODUCTION CONTROL PLAN FOR BORE AND SEAT OPERATION IN NOZZLE MACHINING
133. DESIGNING OF MODULAR AND LOW COST LEVELLING VALVES
134. DEVELOPING & IMPLEMENTATION OF SYSTEM FOR SAMPLE ORDER PROCESS.
135. DEVELOPING AN IMPROVED PRODUCTION PLANNING METHOD FOR A MACHINING CELL USING AN ACTIVE NON-DELAY HYBRID SCHEDULING TECHNIQUE IN TYRE MANUFACTURING DEPARTMENT
136. DEVELOPING NON-DESTRUCTIVE EXAMINATION METHODS IN BROWN FIELD AND OFFSHORE(OIL & GAS) PROJECTS
137. DEVELOPING PREVENTIVE MAINTENANCE SCHEDULE, FOR ALL THE CRITICAL MACHINERIES IN RL INSTITUTE OF NAUTICAL SCIENCES, MADURAI.
138. DEVELOPMENT AND ANALYSIS OF MOULDED W SHAPED MARINE RUBBER FENDER FOR TUGBOATS
139. DEVELOPMENT AND ESTABLISHMENT OF MANUFACTURING PROCESSES OF VERTICAL SEPERATOR
140. DEVELOPMENT LEAD TIME REDUCTION IN CASTINGS FOR NEW PRODCUT DEVELOPMENT
141. DEVELOPMENT OF A MATHEMATICAL MODEL TO OPTIMIZE CHAIN LOAD OF TIMING CHAIN DRIVE SYSTEM OF INTERNAL COMBUSTION ENGINE CONSIDERING EFFECTS OF FACTORS ON IT"
142. DEVELOPMENT OF AIR LEAK TESTING MACHINE FOR WHEELS
143. DEVELOPMENT OF ANALYTICAL MODEL FOR DESIGN OF GEROTOR OIL PUMP AND COMPARISON WITH EXPERIMENTAL RESULTS
144. DEVELOPMENT OF EXTRA POWER RELAY FOR HEAVY DUTY APPLICATIONS
145. DEVELOPMENT OF FOUR-WAY CONNECTOR THROUGH ALTERNATE MATERIAL PROCESS OF LOST FOAM CASTING.
146. DEVELOPMENT OF GEAR GRINDING ABRASIVE WHEEL FOR GEAR INDUSTRIES.
147. DEVELOPMENT OF GLASS GLUING & FLUID FILLING EQUIPMENTS FOR NEW MODEL
148. DEVELOPMENT OF HALF WIDTH SPREADER UNIT FOR REDUCTION OF FABRIC SCRAP & DOWNTIME “
149. DEVELOPMENT OF HYDROCARBON BASED 1.0T SPLIT AIR-CONDITIONER.
150. DEVELOPMENT OF LEAN AUTOMATED MATERIAL HANDLING SYSTEMS THROUGH PARAMETRIC MODELING & SIMULATION
151. DEVELOPMENT OF MAINTENANCE AND KNOWLEDGE MANAGEMENT SOFTWARE FOR CONTROL AND INSTRUMENTATION ON AN OFFSHORE OIL PROCESSING PLATFORM
152. DEVELOPMENT OF MULTI GROOVE SHEARING BLADE FOR COLD SHEARING MACHINE TO CUT SECTIONS
153. DEVELOPMENT OF NEW MODEL COMPRESSOR WITH COST INNOVATION
154. DEVELOPMENT OF NEW PLUNGERS FOR HYDRO TESTING OF QUICK CLOSING NON-RETURN VALVE TO REDUCE CYCLE TIME & COST

155. DEVELOPMENT OF OPTIMISED DESIGN IN STEERING CYLINDER GIVING DURABILITY AND COST ADVANTAGE
156. DEVELOPMENT OF ROCKER ARM ASSEMBLY FOR MDI ENGINE.
157. DEVELOPMENT ON FLIPPER MODULE AND TRACK INSERTER TO RUN NEW PACKAGE TYPE WITH INCREASE CYCLETIME AND LOW REJECTION RATE.
158. DFMEA AND VIRTUAL TEARDOWN COMBINED PROCESS FOR NEW PRODUCT DEVELOPMENT
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161. EFFECTIVE UTILIZATION OF WASTE HEAT RECOVERY THROUGH ADVANCED HEAT EXCHANGER SYSTEM
162. EFFECTIVENESS OF INTERNAL COMMUNICATION SYSTEM
163. EFFICIENCY IMPROVEMENT OF CO2 PLANT
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165. ELIMINATE WASTE TO ESTABLISH MULTI MIX MODEL LINE FOR AXLE ASSEMBLY GROUP
166. ELIMINATION OF BREAKDOWN LOSS ON COMAU HORIZONTAL MACHINING CENTRE OF POWER TRAIN DIVISION BY IMPLEMENTATION OF WCM METHODOLOGY
167. ELIMINATION OF DEFECTS IN POWERTOOL ALLOCATIONS FOR VIRTUAL MFG. ASSESSMENT
168. ELIMINATION OF FLEXIBLE COUPLING BREAKAGE BY USING QC STORY METHOD
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170. ELIMINATION OF REPEATED REWORK ACTIVITIES ON OUTER HANDLE ASSEMBLY OF AIRBUS A320 FWD DOOR ASSEMBLY USING SIX SIGMA TECHNIQUES
171. ELIMINATION OF UNSAFE ACTS IN AXLE MACHINING IN BAY 8 & 9
172. ELIMINATION OF VALVE DROP FAILURE IN OFF-HIGHWAY VEHICLE ENGINE.
173. ELIMINATION OF WARRANTY CONCERN: SPEEDO CABLE CUT IN FIELD OF ALFA 3 WHEELER
174. END TO END PROCUREMENT IN OIL & GAS INDUSTRIES WITH SAP INTEGRATION
175. ENERGY CONSERVATION IN CYCLONE DUST COLLECTOR BLOWERS THROUGH DESIGN CHANGE
176. ENERGY CONSERVATION IN HYDRAULICS SYSTEM THROUGH DESIGN CHANGE ENERGY CONSERVATION IN HYDRAULICS SYSTEM THROUGH DESIGN CHANGE
177. ENERGY CONSERVATION PROJECTS
178. ENGINEERING, DESIGN, PROCUREMENT AND CONSTRUCTION OF 100 KW ROOF TOP LOCAL GRID INTERACTIVE SOLAR POWER PLANT
179. ENHANCEMENT OF PRODUCTION CAPACITY IN DV BLOCK LINE
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181. ENVIRONMENTAL POLLUTION CONTROL
182. ENVIRONMENTAL POLLUTION CONTROL - DUST LEVEL REDUCTION IN MIXING AREA BY INTRODUCING MIX FEEDING SYSTEM AND MACHINE DESIGN CHANGE
183. ERGONOMICS DESIGN STUDY IN METRO COACHES
184. ERGONOMICS IMPLEMENTATION TO ENHANCE PRODUCTIVITY & WELL BEING OF BLUE COLLAR EMPLOYEES
185. ESTABLISHMENT OF BICOLOR WATCH CASE COMPONENTS THROUGH PHYSICAL VAPOUR DEPOSITION PROCESS
186. ESTABLISHMENT OF COMPLETE MACHINING OF GV 22INCH HIGH PRESSURE MAIN STEAM STOP VALVE FOR SUPERCRITICAL BOILERS IN HORIZONTAL BORING MACHINE
187. EVALUATION AND IMPLEMENTATION OF PRODUCT LIFECYCLE MANAGEMENT FOR CAD DESIGN DATA
188. EVALUATION OF TROCH NAILS SYSTEM
189. EXPORTS SUPPLIABILITY EFFICIENCY ENHANCEMENT THROUGH LEAD TIME REDUCTION
190. FABRICATION AND TESTING THE MECHANICAL PROPERTIES OF ALUMINIUM – BORON CARBIDE COMPOSITE MATERIALS WITH EFFECT OF ADDITION OF CALCIUM PARTICLES
191. FAILURE MODE AND EFFECT ANALYSIS OF LIFTING MECHANISM OF CNC PLASMA CUTTING MACHINE FOR IMPROVE SURFACE FINISH AND ACCURACY.
192. FAILURE MODE, EFFECTS AND (CRITICALITY) ANALYSIS OF THE PROPULSION SYSTEM OF OFFSHORE PATROL VESSEL
193. FEASIBILITY REPORT TO CONSTRUCT A SHIPYARD AT DHAMRA, EAST COAST OF ODISHA

194. FEASIBILITY STUDY OF USING ALTERNATIVE PLANET GEAR INSTEAD OF SINTERED PLANET GEAR IN STARTER MOTOR FOR COST EFFECTIVE SOLUTION
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196. FME ANALYSIS OF AIRBORNE RADAR TRANSMITTERS FOR JAGUAR AND DORNIER AIRCRAFTS
197. FTQ (FIRST TIME QUALITY) IMPROVEMENT IN CV SUB ASSEMBLY ZONE USING SIX SIGMA METHODOLOGY
198. GAS TURBINE MAINTENANCE
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200. GRINDING WHEEL LIFE CYCLE ANALYSIS
201. HEAD LAMP CASING MANUFACTURING - ALTERNATE PROCESS
202. HYDRAULIC ANALYSIS OF COOLING WATER SYSTEM NETWORK OF ITER-INDIA LAB
203. IMPLEMENTATION OF BS-III ENGINE IN HEAVY COMMERCIAL VEHICLES" (BHARAT STAGE II TO BHARAT STAGE III)
204. IMPLEMENTATION OF COLD START SYSTEM IN DEFENCE VEHICLES
205. IMPLEMENTATION OF DISC BRAKE IN HEAVY MOTOR VEHICLE
206. IMPLEMENTATION OF EMISSION NORMS IN HEAVY COMMERCIAL VEHICLE(FROM BHARAT STAGE III TO BHARAT STAGE IV)
207. IMPLEMENTATION OF GREEN CHANNEL INITIATIVE"
208. IMPLEMENTATION OF JIT APPROACH IN ALTERNATOR MANUFACTURING LINE
209. IMPLEMENTATION OF JIT APPROACH IN STRUCTURAL STEEL FABRICATION UNIT
210. IMPLEMENTATION OF JUST IN TIME SYSTEM IN SUPPLY CHAIN MANAGEMENT
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215. IMPLEMENTATION OF MATERIALS MANAGEMENT SYSTEM IN TRANSDUCERS SHOP FLOOR
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217. IMPLEMENTATION OF SPC IN MATERIALS CENTRE OF EXCELLENCE (MCOE)
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220. IMPROVE CUSTOMER ACCEPTANCE QUALITY LEVEL AT LOWER POWER TRAIN ASSEMBLY
221. IMPROVE PRODUCTIVITY AND REDUCE COST BY PROCESS IMPROVEMENT AND METALLURGICAL REFINEMENT
222. IMPROVE QUALITY OF PROCESS ENGINEERING DELIVERABLES
223. IMPROVED DESIGN, CONSTRUCTION & OPERATIONS METHODOLOGY OF CUT&BEND FACTORY SUITABLE FOR HONGKONG MARKET
224. IMPROVED SUPPLYCHAIN MANAGEMENT IN SUBSEA ENGINEERING ENTERPRISE
225. IMPROVEMENT IN COAL HANDLING BY REDUCTION OF CHOKING IN CHUTES
226. IMPROVEMENT OF FINAL ASSEMBLY LINE IN PRODUCTIVITY QUALITY SAFETY BY EQUIPMENT INSTALLATION & MODIFICATION
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229. IMPROVEMENT OF MANUFACTURING LEAD TIME & COST REDUCTION OF GEAR BOX
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231. IMPROVEMENT OF THRUST WASHER SURFACE PROPERTY THROUGH HT SOLUTION
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236. IMPROVING FPY OF TRACTORS BY REDUCING REJECTION OF TRACTORS AT FINAL APPROVAL STAGE DUE TO CELL 1,2,3 & 5 PROCESS DEFECTS

- 237. IMPROVING OFFSHORE SAFE CARGO SUPPLY MOVEMENT
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- 255. LEAN IMPLEMENTATION IN PETRO VENDING ASSEMBLY
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- 260. LOCALIZATION OF FASTENERS IN MARUTI SUZUKI MODELS
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- 262. MAINTENANCE MANAGEMENT AND MAINTENANCE EQUIPMENTS IN PHARMA INDUSTRIES
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- 272. MODIFICATIONS IN THE EXISTING KANKAR LIMESTONE CRUSHING PLANT TO IMPROVE PRODUCTIVITY
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286. OPERATIONAL OPTIMIZATION-PCB
287. OPTIMISATION OF HIGH PRESSURE DIE CASTING PROCESS
288. OPTIMIZATION OF AIRPORT BAGGAGE HANDLING SYSTEM (CRISBAG 5)
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292. OPTIMIZATION OF SURFACE ROUGHNESS, MATERIAL REMOVAL RATE AND CUTTING TOOL FLANK WEAR IN TURNING USING EXTENDED TAGUCHI APPROACH
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295. OPTIMUM ENGINEERING SCHEDULE AND CRITICAL PATH ANALYSIS FOR EPC CONTRACT BASIS 132/11KV SUBSTATION PROJECT
296. OPTIMUM INVENTORY & MANPOWER MANAGEMENT DURING MAJOR SYSTEM CHANGE-OVER [G-TOPAS]
297. ORGANIZATIONAL STUDY FOR THE ENHANCEMENT OF PROJECT EXECUTION
298. ORGANIZATIONAL EFFICIENCY OF RD&E – MEASUREMENT, CONTROL & IMPROVEMENT
299. OUTSOURCING OF INJECTOR BODY MACHINING
300. PERFORMANCE ENHANCEMENT OF OCCUPANT COMFORT IN CAR THROUGH IMPROVISATION OF 2ND & 3RD ROW AIR CIRCULATION OF HVAC MODULE
301. PLC BASED CRITICAL EQUIPMENTS MONITORING THROUGH SMS
302. PQCDSM IMPROVEMENT BY 200% USING TOTAL PRODUCTIVE MAINTENANCE
303. PREPARATION OF 'NON PRODUCTION PURCHASING' MANUAL FOR JCB INDIA LTD.
304. PROBLEM SOLVING ( TOE HOOK BRACKET FAILURE ON TRACTOR) THROUGH QC STORY APPROACH.
305. PROCESS DESIGN FOR ARTICULATED DUMP TRUCK (ADT) ASSEMBLY LINE (ANALYSIS OF CURRENT MANUFACTURING SCENARIOS & TRENDS, PROPOSAL FOR OPTIMIZED SOLUTION SET)
306. PROCESS DESIGN FOR DRIVE TRAIN ASSEMBLY LINE (ANALYSIS OF CURRENT MANUFACTURING SCENARIOS & TRENDS, PROPOSAL FOR OPTIMIZED SOLUTION SET)
307. PROCESS DEVELOPMENT FOR CONVERSION OF 7 INCH SEAMLESS TUBE INTO 5 1/2 INCH SEAMLESS TUBE
308. PROCESS DEVELOPMENT TO SOURCE SMITH PARTS – SUPPLY CHAIN INTEGRATION
309. PROCESS IMPROVEMENT IN MANUFACTURE OF RUBBER DIAPHRAGM
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311. PROCESS OPTIMIZATION AND IMPROVEMENT IN PRESS MACHINE
312. PRODUCT COSTING -IMPLEMENTATION OF COST DATA BASE OF PANEL
313. PRODUCT CUSTOMIZATION FOR INDIAN SMALL CAR SEGMENT
314. PRODUCT DESIGN OPTIMIZATION OF WATER MAKING APPARATUS
315. PRODUCT DESIGN STRATEGIES OF BIW (BODY IN WHITE) FOR MANUFACTURING EFFECTIVENESS
316. PRODUCTION PLANNING, ORGANIZING & SCHEDULING OF WEAPON SYSTEM INTEGRATION
317. PRODUCTIONISATION OF MDI-LCCR (UPCR) ENGINE WITH QUALITY AND RELIABILITY
318. PRODUCTIVITY AND CAPACITY IMPROVEMENT IN CHARGER LINES
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321. PRODUCTIVITY AND QUALITY IMPROVEMENT IN CARRIER ASSEMBLY
322. PRODUCTIVITY ENHANCEMENT FOR HEAVY WALL SEAM WELDING OF PRESSURE VESSELS

323. PRODUCTIVITY IMPROVEMENT AND LEAD TIME REDUCTION BY TRANSFORMING THE 22KT JEWELLERY MANUFACTURING"
324. PRODUCTIVITY IMPROVEMENT BY CHANGING LEAK TESTING PROCESS IN GAS ASSISTED SHOCK ABSORBER LINE
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326. PRODUCTIVITY IMPROVEMENT BY REDUCING THE SCRAP AND REWORK ON CONE GRIND LINE(8 TO 18 INCH)
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328. PRODUCTIVITY IMPROVEMENT IN 50 TON DUMP TRUCK SPINDLE ARM.
329. PRODUCTIVITY IMPROVEMENT IN A COATED ABRASIVES MAKING LINE (PROCESS PLANT)
330. PRODUCTIVITY IMPROVEMENT IN ATM – SUB-MODULE ASSEMBLY LINE THROUGH LEAN PRINCIPLES.
331. PRODUCTIVITY IMPROVEMENT IN BROWN FUSED ALUMINA(BFA) PROCESSING PLANT BY PROCESS LAYOUT RE-ENGINEERING
332. PRODUCTIVITY IMPROVEMENT IN COMMON RAIL INJECTOR ASSEMBLY
333. PRODUCTIVITY IMPROVEMENT IN FLAP DISC MACHINE
334. PRODUCTIVITY IMPROVEMENT IN INDIAN BACKHOE LOADER ASSEMBLY LINE
335. PRODUCTIVITY IMPROVEMENT IN MOLDED D COVER
336. PRODUCTIVITY IMPROVEMENT IN MOLY CHROME CERAMIC (MCC) RINGS
337. PRODUCTIVITY IMPROVEMENT IN PISTON ROD MACHINING
338. PRODUCTIVITY IMPROVEMENT IN PUBLIC SECTOR PRINTING INDUSTRIES
339. PRODUCTIVITY IMPROVEMENT IN ROBOT PAINTING
340. PRODUCTIVITY IMPROVEMENT IN SEAT ASSEMBLY FOR TWO WHEELER SCOOTER
341. PRODUCTIVITY IMPROVEMENT IN SMALL CYLINDER ASSEMBLY LINE
342. PRODUCTIVITY IMPROVEMENT IN STEERING WHEEL PRODUCT VALUE CHAIN THROUGH OPTIMIZATION OF MANUFACTURING RESOURCE UTILIZATION, HUMAN FATIGUE ELIMINATION & INNOVATIVE PROCESS DESIGN
343. PRODUCTIVITY IMPROVEMENT OF COLD ISO STATIC PRESS THROUGH TOTAL PRODUCTIVE MAINTENANCE
344. PRODUCTIVITY IMPROVEMENT OF CRANKSHAFT ON LINE-11 IN MCD-1 BY LEAN TOOLS.
345. PRODUCTIVITY IMPROVEMENT THROUGH BREAKDOWN ELIMINATION IN A COATED ABRASIVES MAKING LINE (PROCESS PLANT)
346. PRODUCTIVITY IMPROVEMENT THROUGH LEAN MANUFACTURING
347. PRODUCTIVITY IMPROVEMENT THROUGH THE APPLICATION OF TOTAL QUALITY MANAGEMENT PRINCIPLES
348. PRODUCTIVITY IMPROVEMENT THROUGH VAVE.
349. PROJECT MANAGEMENT
350. PROJECT MANAGEMENT" IN SETTING UP A MANUFACTURING INDUSTRY
351. PROJECT ON MAINTENANCE MANAGEMENT SYSTEMS"
352. PROJECTS SCHEDULING IN GULF MARKETS INTERNATIONAL LIFTS, ESCALATORS AND BUILD INSTALLATION AND MAINTENANCE.
353. PU FOAMING INJECTION HEAD UP GRADATION
354. PUMP RELIABILITY FAILURE ANALYSIS
355. QUALITY IMPROVEMENT IN HYPOID GEARS USING SIX SIGMA APPROACH
356. QUALITY IMPROVEMENT IN IGNITION SWITCH.
357. QUALITY IMPROVEMENT IN MOLDED LEAF SCREEN
358. QUALITY IMPROVEMENT OF ELECTRICAL WIRING HARNESS DRAWINGS OF A STRATEGIC SUPPLIER
359. QUALITY IMPROVEMENT OF MARINE PIPING BY USING FAILURE MODE AND EFFECTS ANALYSIS
360. QUALITY IMPROVEMENT PLAN FOR THERMAL INSULATION WORKS
361. REDESIGN OF HEIGHT ADJUSTMENT MECHANISM IN DRIVER SEATS
362. REDESIGN PREVENTIVE MAINTENANCE SYSTEM AND REDUCE RISK INVOLVED IN PREVENTIVE MAINTENANCE ACTIVITIES.
363. REDUCE DELIVERY LEAD TIME FOR SLOW MOVING COLOR VEHICLES BY WEEKLY ORDER CHANGE
364. REDUCE THE SCRAP COST OF INTERMEDIATE DRIVE SHAFT PRODUCT FROM CURRENT RS.5.6/- TO RS.3.6/-PER PRODUCT MANUFACTURED

- 365. REDUCING DEFECTS IN WC-12WT%CO GRADED POWDER FROM 60% TO LESS THAN 10%
- 366. REDUCING THE SOURCE OF WASTE IN TUBE ASSEMBLY MANUFACTURING
- 367. REDUCTION IN LOGISTIC COST OF AUTOMOTIVE GLASS USING SIX SIGMA APPROACH
- 368. REDUCTION IN MEAN TIME TO REPAIR” FOR GAS PLANT
- 369. REDUCTION IN THE HEAD LAMP REJECTION
- 370. REDUCTION OF FIELD FAILURE RATE FOR WATER VALVE IN THE APPLIANCE PRODUCTS USING SIX SIGMA TOOLS AND PROCESSES.
- 371. REDUCTION OF GRID REJECTIONS IN GRID CASTING
- 372. REDUCTION OF KEY FINGER FALSE FAILURE IN MANUFACTURING TEST PROCESS
- 373. REDUCTION OF MANUAL EFFORT IN FABRICATION THROUGH BEST MANUFACTURING PRACTICE
- 374. REDUCTION OF OPERATIONAL DOWNTIME BY 50% ON THE INTEGRATED KURIMOTO PRESSLINE BY MID-2014
- 375. REDUCTION OF PTO AND MAIN CLUTCH SLEEVES REJECTION THROUGH QUALITY CONTROL.
- 376. REDUCTION OF REJECTION LEVEL FOR BASE THICKNESS IN STARTER DRIVE HOUSINGS BY USING SIX SIGMA METHODOLOGY
- 377. REJECTION REDUCTION AT SECTOR GEAR AND MAIN ARM WELDING PROCESS THROUGH DMAIC METHOD
- 378. RELIABILITY CENTERED MAINTENANCE FOR HVAC EQUIPMENTS
- 379. REPLACEMENT OF MINERAL OIL WITH VEGETABLE OIL IN CUTTING FLUIDS
- 380. RESOLVE THE HIGH RESISTANCE WARRANTY FAILURES IN ETC MOTORS
- 381. RESOURCE MANAGEMENT BY RAW MATERIAL MODIFICATION
- 382. RUN OUT REJECTION REDUCTION OF LP WHEELS AT PADI LP UNIT
- 383. SEISMIC QUALIFICATION OF VALVES
- 384. SETTING UP OF LIGHT - WEIGHT ALUMINA PELLET PLANT
- 385. SETUP TIME REDUCTION IN DIE CHANGEOVER
- 386. SHOT BLASTING MACHINE DUST COLLECTOR
- 387. SIMPLIFICATION OF WORK METHOD & REDUCE REWORK & REJECTION
- 388. SINGLE MINUTE EXCHANGE OF DIES
- 389. SPARE PARTS WAREHOUSE LAYOUT DESIGN & OPTIMIZATION
- 390. SPOT WELDING PROCESS IMPROVEMENT FOR SOLVING QUALITY PROBLEM
- 391. STRATEGIC MANAGEMENT AND BUSINESS POLICY
- 392. STRATEGIC VENDOR DEVELOPMENT
- 393. STUDIES ON FACTORS INFLUENCING THE PERFORMANCE METRICS OF INTRALOGISTICS SYSTEM WITH SPECIFIC REFERENCE TO E-RETAILING
- 394. STUDIES ON NOX REDUCTION IN A DIESEL ENGINE WITH COLD ECR
- 395. STUDY & IMPROVEMENT ON CUSTOMER COMPLAINT OF CLUTCH PEDAL GOES DOWN
- 396. STUDY OF QG1 UPSTREAM LETDOWN STATION CONTROL VALVES PRESSURE CONTROL & VIBRATION PROBLEMS WITH IMPLEMENTED MODIFICATION
- 397. STUDY ON PROCESS IMPROVEMENTS AND OPTIMIZATION OF THE ROTOR WINDING PROCESS OF ALTERNATOR ASSEMBLY LINE.
- 398. STUDY ON THE BIW FOR IMPROVING VEHICLE VIBRATION PERFORMANCE
- 399. STUDY, ANALYSIS AND CYCLE TIME REDUCTION OF 500MW REHEATERS
- 400. SUPPLIER COLLABORATION TO ADDRESS OIL PRESSURE SWITCH FIELD FAILURE
- 401. SUPPLIER PERFORMANCE EVALUATION TECHNIQUES.
- 402. SUPPLIER PERFORMANCE MEASUREMENT BENCHMARKING
- 403. TESTING & DEVELOPEMENT OF UNHEATED LAMBDA SENSOR COMPONENT PACKAGE FOR 2WHEELER EU4 EMISSION LIMITS
- 404. THREAD YIELDING TORQUE IMPROVEMENT OF M:10 SPARK PLUG
- 405. THREE PHASE GRID TIE SOLAR INVERTER PRODUCT DESIGN
- 406. THROUGH-PUT TIME REDUCTION IN PHENOL-FORMALDEHYDE RESOLE MANUFACTURING PROCESS.
- 407. TITLE: TO CONTROL THE FOUNDRY REJECTION % OF TUBE LOCK CASTING OF CEMENT PLANT PRE HEATER USING TQM TECHNIQUES
- 408. TO IMPROVE MANUFACTURING LINES EFFICIENCY FROM 69% TO 75 % BY END OF 1ST QTR.2013

- 409. TO IMPROVE SUPPLY CHAIN MANAGEMENT BY CONDUCTING FAILURE MODE & EFFECT ANALYSIS TO IDENTIFY & REDUCE THE RISK OF POTENTIAL FAILURES FOR THE REDUCTION IN REJECTION OF INTERMEDIATE TUBE AT VARIOUS STAGES BY TAKING CORRECTIVE / PREVENTIVE ACTIONS THROUGH TQM INITIATIVE.
- 410. TO REDUCE QUALITY DIVERSION DUE TO EDGE CRACKS TO LESS THAN 1%
- 411. TO REDUCE REWORK & DE BOTTLENECK
- 412. TO REDUCE THE REJECTIONS IN T4 COVERS FROM 15% TO 3%
- 413. TORQUE REDUCTION IN FLOATING BALL VALVES
- 414. TOTAL QAULTY MANAGEMENT (REDUCTION IN PROCESS REJECTION)
- 415. TOTAL QUALITY MANAGEMENT-THROUGH LEAN SIX SIGMA
- 416. TOTAL QUALITY MANGEMENT WITH MAJOR ON SPC AND SIX SIGMA
- 417. TRANSFORMING SUPPLY CHAIN MANAGEMENT: IMPACT OF TECHNOLOGY
- 418. UNDERSTANDING THE SATISFACTION LEVELS AND MAPPING THE NEEDS OF CUSTOMERS IN ROYAL ENFIELD– A RESEARCH PROPOSAL
- 419. UP-TIME IMPROVEMENT IN BAY 3 CRANK SHAFT LINE
- 420. VALUE ANALYSIS ON BELL CRANK LEVER FOR COST OPTIMIZATION
- 421. VALUE ENGINEERING ANALYSIS ON OIL SEAL RINGS FOR HIGH VOLUME VEHICLE MODEL FOR SIGNIFICANT COST SAVINGS
- 422. VERIFICATION OF EFFECT OF FLOW & FRICTIONAL FORCES ON RESEATING OF VALVE
- 423. VIRTUAL PROTOTYPING OF ROBOTIC WORKCELL
- 424. VOLTAGE SUPPRESSION TEST
- 425. WATCH BACK COVER COST REDUCTION THROUGH AUTOMATION
- 426. WEB BASED APPLICATION FOR CATALOGUE MANAGEMENT AND AUTOMATIC BOM GENERATION
- 427. WELDING PROCESS IMPROVEMENT OF SHEATHINGS IN PRESSURE HULL OF UNDERWATER VESSELS
- 428. WHEEL RUN OUT IMPROVEMENT & CORRECTION
- 429. WORKING CAPITAL OPTIMIZATION.
- 430. WORLD CLASS MANUFACTURING – AUTONOMOUS MAINTENANCE TECHNOLOGY

**M.S. (Embedded Systems)**

- 431. ADAPTIVE NOISE CANCELLATION FILTER IMPLEMENTATION & GUI DESIGN USING MATLAB
- 432. ADAPTIVE REAL TIME MONITORING OF ANALOG SIGNALS - AN OPTIMIZED APPROACH
- 433. AUTOMATED TESTING UNIT FOR INSTRUMENT CLUSTER
- 434. AUTOMATION OF KEY PERFORMANCE REPORT GENERATION
- 435. BI-DIRECTIONAL INVERTER AND ENERGY STORAGE SYSTEM
- 436. CONTINUOUS INTEGRATION BASED CHANGE VERIFICATION FOR EMBEDDED SYSTEMS
- 437. DATA COLLECTION FROM L&T ENERGY METERS ON AN ANDROID BASED SMART PHONE.
- 438. DESIGN OF A COMMON PLATFORM FOR DEVELOPMENT OF ELECTRICAL PROTECTION RELAYS
- 439. DESIGN OF COMPACT & EFFICIENT AC-DC SWITCHING POWER SUPPLY USING ACTIVE CLAMP FLYBACK TOPOLOGY.
- 440. DESIGN PATTERNS FOR SYSTEMC BASED EDA
- 441. EMBEDDED INTERNET AND INTERNET OF THINGS–6LOWPAN BASED SMART DEVICES
- 442. ENGINE PERFORMANCE CHARACTERISTICS ANALYSIS USING SIMULATION ENVIRONMENT
- 443. GUI DEVELOPMENT FOR PROPULSION CONTROL SYATEM
- 444. REMOTE RADIO HEAD DESIGN ANALYSIS FOR LTE APPLICATION
- 445. SECURE TCP/IP COMMUNICATION WITH OPENSLL USING MFC
- 446. THE FILTERING TECHNIQUE AND POWER SYSTEM STABILITY STUDIES USING MATLAB FOR THREE-PHASE POWER SYSTEMS.
- 447. XBMC MEDIA CENTER WITH RASPBERRY PI

**M.S. (Quality Management)**

- 448. A STUDY ON “COPQ AS A FRAMEWORK FOR IMPLEMENTING CONTINUOUS IMPROVEMENT AS A CULTURE IN A 35328 SPINDLES COTTON SPINNING FACILITY”

449. A STUDY ON "COPQ AS A FRAMEWORK FOR IMPLEMENTING CONTINUOUS IMPROVEMENT AS A CULTURE IN A 35328 SPINDLES COTTON
450. ACCESSING PROFILE WISE TRAINING NEEDS AND DEVELOP A TECHNICAL TRAINING PROGRAM FOR ALL KEY PROFILE IN READYMIX CONCRETE (RMX) INDUSTRY
451. ADVANCE WIRELESS CDMA TECHNOLOGY IMPLEMENTATION & QUALITY OF SERVICES ASSURANCE AND CONTROL
452. AGILE PROJECT MANAGEMENT
453. AGILE PROJECT MANAGEMENT TOOLS: ANALYSIS AND IMPLEMENTATION
454. ANALYSIS ON COST OF POOR QUALITY AFTER SALES SERVICE
455. ANALYZING THE GAPS IN THE CURRENT ELECTRONIC DATA CAPTURE (EDC)SET UP QUALITY EVALUATION SYSTEM FOR CLINICAL TRIALS & REDESIGNING THE CURRENT QUALITY EVALUATION SYSTEM FOR IMPROVED REVIEW OF QUALITY & EARLY DETECTION OF RISKS IN THE EDC SETUP OF CLINICAL TRIALS
456. APPLICATION OF COST-OPTIMISATION OF ANALYTICAL SOFTWARE QUALITY ASSURANCE IN HEALTHCARE PHARMACY SOFTWARE
457. APPLICATION OF FMEA CONCEPT ON AVIONICS REPAIR LINE – A QUALITATIVE APPROACH
458. APPLICATION OF FMEA FOR MONOCHONAL PRODUCT MANUFACTURING PROCESS SCALEUP
459. APPLYING LEAN AND SIX SIGMA METHODOLOGY
460. APPLYING LEAN/SIX SIGMA METHODOLOGY FOR IMPROVING THE QUALITY OF THE WORK/PROCESS AND REDUCING THE WASTES.
461. ASSESSMENT OF TECHNICAL PRACTICES IN SCHEDULED AND BREAKDOWN MAINTENANCE OF VEHICLES BY APPLYING WORK MEASUREMENT TECHNIQUES AND SUGGEST IMPROVEMENT IN THE WORK AREA LAYOUT
462. BENCHMARKING - CREATING THE BEST IN CLASS SERVICE EXPERIENCE FOR NOKIA CONSUMERS
463. BENCHMARKING OF QUALITY ASSUARANCE TRAINING IN THE AIR FORCE
464. BENCHMARKING P&G QUALITY MANAGEMENT SYSTEMS WITH INTERNATIONAL STANDARDS
465. BRINGING IMPROVEMENTS IN 'AQMS CERTIFICATION' PROGRAM THROUGH APPLICATION OF TQM CONCEPTS/TOOLS & TECHNIQUES
466. CANDIDATE SELECTION PROCESS
467. CASE STUDY FOR APPLYING DMAIC PROCESS TO RESOLVE COMPANY/ CONTRACTOR PROBLEMS AND IMPROVE HIS PERFORMANCE
468. CAUSE AND EFFECT ANALYSIS OF ENGINE SPROCKET DRIVE FAILURE
469. CLINICAL RESEARCH AS A TOOL TO IMPROVE THE QUALITY OF CLINICAL PRACTICE
470. COMPREHENSIVE FRAMEWORK FOR UNDERSTANDING AGILE TESTING STRATEGY APPLICATIONS ACROSS SDLC PHASES AND PROJECT CATEGORIES IN SOFTWARE QUALITY MANAGEMENT: AN EMPIRICAL APPROACH.
471. CONDUCT & IMPROVE CLIENT SATISFACTION SCORE
472. CO-OWNING IMPLEMENTATION OF AGILE-SCRUM METHODOLOGY TO ACHIEVE CUSTOMER SATISFACTION
473. CRITICAL EXAMINATION OF EXISTING QUALITY SEICHEME FOR READYMIX CONCRETE INDUSTRY IN INDIA
474. CYCLE TIME REDUCTION IN HOBGING OPERATION
475. CYCLE TIME REDUCTION OF INCOMING INSPECTION PROCESS BY 50% THROUGH MOS ( MODINE OPERATING SYSTEM) APPROACH
476. DEFECT ANALYSIS OF ICV BMP VEHICLES IN SHOP FLOOR & IDENTIFYING THE CORRECTIVE ACTION USING QC TOOLS
477. DEFECT PREDICTION
478. DEFINE A PROCESS OF RELIABILITY GOAL CALCULATION FOR DESIGN ENGINEERS
479. DEFINING QUALITY CONTROL AND QUALITY ASSURANCE PROCESSES TO ADDRESS THE JAPANESE IT SERVICE DELIVERY
480. DEGRADATION OF REMAZOL RED F3B USING ADVANCE OXIDATION PROCESS: OPTIMIZATION OF PROCESS PARAMETERS USING TAGUCHI EXPERIMENTAL DESIGN
481. DEVELOPMENT AND IMPLEMENTATION OF QUALITY ASSURANCE SYSTEM AT A SME GARMENT UNIT
482. DEVELOPMENT OF MODIFIED RELEASE FORMULATION AND QUALITY PARAMETERS USING QUALITY BY DESIGN

483. DEVELOPMENT OF POTENTIAL FAILURE MODE AND EFFECT ANALYSIS FOR BREAK DOWN IN WIND TURBINE GENERATOR
484. EFFECTIVE IMPLEMENTATION OF LEAN TECHNIQUE IN MANUFACTURING OF PRESSURE VESSEL INTERNALS
485. EFFECTIVE PROCEDURE FOR IMPLEMENTATION OF TAKREER PROJECTS
486. EFFECTIVE USE OF QUALITY INDICATORS IN HEALTHCARE INDUSTRY TO ACHIEVE OPERATIONAL EXCELLENCE
487. ELIMINATION OF STRAIGHTENING OPERATION DURING HEAT TREATMENT OF DRIVE SHAFTS (FUEL INJECTION PUMP)
488. EMPIRICAL STUDY FOR PROPOSING THE CENTRALIZED ENERGY EFFICIENT CHILLER FOR MULTIPLE HVAC SYSTEMS
489. ENHANCING PRODUCTIVITY AND PATIENT SATISFACTION THROUGH BETTER HEALTHCARE COMMUNICATIONS SYSTEMS IN THE ROOM
490. ENHANCING THE OUTGOING QUALITY LEVEL OF FRAME FABRICATION BY STRENGTHENING PREVENTION AND DETECTION METHODS AND THEREBY ENHANCING CUSTOMER SATISFACTION
491. ENSURING >95% SLA ADHERENCE FOR PRODUCTION SUPPORT PROJECTS OF SPRINT NEXTEL ACCOUNT IN MPHASIS
492. ENVIRONMENT SUSTAINABILITY STUDY & IMPROVEMENT
493. ENVIRONMENTAL IMPACT ASSESSMENT OF CERTAIN CRITICAL MANUFACTURING AND ALLIED PROCESSES IN INSTRUMENTATION LIMITED KOTA.
494. ESTABLISH FRICTION WELDING PROCESS FOR SOUND WELD JOINT BETWEEN MEDIUM CARBON STEEL AND ALLOY STEEL, ALLOY STEEL TO ALLOY STEEL
495. EVALUATION OF PROCESS AND QUALITY PARAMETERS IN A DRUG PRODUCT
496. EXECUTION, MONITORING AND IMPROVEMENT IN QUALITY SYSTEM
497. EXTENDING QMS FROM MANUFACTURING PREMISES TO DISTRIBUTION CHANNEL
498. FACTORS AFFECTING THE SOFTWARE QUALITY ASSURANCE PROCESS.
499. FAILURE MODE AND EFFECT ANALYSIS (DESIGN FMEA)FOR CORD BLOOD BANKING.
500. FORMULATION OF STRUCTURED METHODOLOGY AIMING AT GLITCH-FREE LAUNCH OF NEW PRODUCTS IN COMPLEX BUS MARKET
501. GREEN ENERGY FOR A CLEAN ENVIRONMENT
502. HUMAN RESOURCE PLANNING
503. IMPLEMENTATION OF EFFECTIVE ERROR MANAGEMENT IN INDIAN MILITARY AVIATION USING HUMAN FACTOR ANALYSIS AND CLASSIFICATION SYSTEM(HFACS)
504. IMPLEMENTATION OF FAILURE MODE AND EFFECT ANALYSIS (P-FMEA) FOR MELTING PROCESS.
505. IMPLEMENTATION OF HYBRID FRAMEWORK TO MAXIMIZE RETURN ON INVESTMENT IN AUTOMATION TESTING
506. IMPLEMENTATION OF POKA-YOKE SYSTEM IN GEAR MANUFACTURING
507. IMPLEMENTATION OF STATISTICAL PROCESS CONTROL IN PHARMACEUTICAL INDUSTRY
508. IMPLEMENTING RULES IN SYSTEM IN PROVIDER SELECTION TO INCREASE THE QUALITY AND TO REDUCE MANUAL WORK
509. IMPROVE THE EFFECTIVENESS OF ADVANCED SOLUTIONS LINE OF BUSINESS PRODUCT DEVELOPMENT VALUE STREAM MAP BY FOCUSING ON THE WASTE ELIMINATION AND BUILT-IN-QUALITY
510. IMPROVEMENT OF PRODUCT QUALITY AND STANDARDIZATION OF THE AGILE PRACTICE-BUG DEBT
511. IMPROVING EFFICIENCY AND EFFECTIVENESS OF SOFTWARE QUALITY ASSURANCE GROUP
512. IMPROVING ENGINEERING PROCESS OPERATIONAL EFFICIENCY AND EFFECTIVENESS THROUGH STANDARDIZATION, LEAN OUT AND AUTOMATION.
513. IMPROVING QUALITY OF PERFORMANCE AND REDUCING DEFECTS BY DEPLOYING QUALITY MANAGEMENT SYSTEM IN SERVICE INDUSTRY
514. IMPROVING THE COMPLETENESS OF SECONDARY CONTENT DATABASE BY REDUCING THE OPEN CLAIMS IN THE SYSTEM
515. IMPROVING TRANSACTION RESPONSE TIMES OF A WEB APPLICATION IN PERFORMANCE TESTING
516. INCREASE THE ASIAN MARKET SHARE BY REDUCING MANUFACTURING COST BY 30% THROUGH DESIGN TO COST / VALUE ENGINEERING METHODOLOGY.

517. MARKETING BY ADVANCED PRODUCTION QUALITY PLANNING (LUCKY STAR LARVAL FEED - TAIWAN) ( AN INNOVATION TECHNOLOGY FOR INDIAN AQUACULTURE TO GLOBAL STANDARD)
518. MERI QUALITY
519. MOVING GLOBALIZATION QUALITY UPSTREAM USING LEAN SIX SIGMA
520. MUD CLAY CONSUMPTION PROBLEM IN BLAST FURNACE
521. OPTIMISATION OF SECOND LINE SERVICING PERIODICITY OF HEAVY LIFT TRANSPORT AIRCRAFT
522. OPTIMIZATION OF BEST BRAZE JOINT FIR FOR ARMATURE AND SPINDLE OF SOLENOID
523. OPTIMIZING APPLICATION TESTING ON MOBILE PLATFORM
524. PROCESS DESIGN AND VALIDATION OF COLD CHAIN FOR TEMPERATURE SENSITIVE PRODUCTS
525. PRODUCTIVITY AND WELDING QUALITY IMPROVEMENT IN BOILER PRESSURE PARTS USING STATISTICAL PROCESS CONTROL
526. PRODUCTIVITY IMPROVEMENT OF MSPL
527. QA/QC SYSTEM IN FUEL OIL TANK CONSTRUCTION
528. QUALITY ASPECTS AND MANAGEMENT OF VALVES IN OIL & GAS INDUSTRY CONSTRUCTION PROJECTS
529. QUALITY ASSURANCE OF ROCKET MOTOR CASINGS USING NON DESTRUCTIVE TESTING TECHNIQUES
530. QUALITY ASSURANCE THROUGH DEFECT ANALYSIS AND IMPLEMENTATION OF DEFECT PREVENTION PLAN
531. QUALITY CONTROL ON PASSENGER CAR HVAC'S EVAPORATOR COIL FAILURE USING G8D
532. QUALITY IMPROVEMENT OF GHCL
533. QUALITY IMPROVEMENT USING LEAN SIX SIGMA METHODOLOGY
534. QUALITY MANAGEMENT: OPTIMIZING THE PERFORMANCE ENGINEERING COE PROCESS
535. QUALITY PROBLEMS IN PAINTED COMPONENTS
536. REDESIGN AND RESTRUCTURING OF PATIENT FEEDBACK COLLECTION SYSTEM FOR ENHANCED CAPTURING, MEASURING AND IMPROVEMENT OF CUSTOMER EXPERIENCE
537. REDUCING CUSTOMER COMPLAINTS TO MINIMIZE THE COST INCURRED PER ENGINEER ON SERVICES OFFERED
538. REDUCTION IN COST OF POOR QUALITY IN EARTH MOVER RIM LINE.
539. REDUCTION IN COST OF POOR QUALITY IN FUEL & HYDRAULIC TANKS USED FOR BACKHOE LOADER
540. REDUCTION IN CRITICAL AIRCRAFT TECHNICAL DEFECTS IN IAF TO IMPROVE FLIGHT SAFETY
541. REDUCTION IN CYCLE TIME FOR GLOBAL/CRJ MODSUMS INCORPORATION
542. REDUCTION IN RUNOUT REJECTION OF PASSENGER CAR WHEELS DURING ASSEMBLY PROCESS"
543. REDUCTION IN WAREHOUSE INVENTORY RESIDENCY PERIOD THROUGH TQM (SIX SIGMA)APPROACH
544. REDUCTION OF CO2 CONSUMPTION BY 25% IN PART COOLING OF THERMAL SPRAY COATINGS
545. REDUCTION OF MANUFACTURING REJECTIONS IN AUTOMOBILE TWO WHEELER STARTER THROUGH APPLICATION OF DESIGN OF EXPERIMENT
546. REDUCTION OF REJECTION (COPQ)IN WIRE CUTTING & CRIMPING AREA
547. REDUCTION OF SUPPLIER PART QUALITY ISSUES IN GEAR REDUCTION STARTER MOTOR ASSEMBLY LINE THROUGH APPLICATION OF DESIGN OF EXPERIMENT
548. RE-ENGINEERING OF THE AIRCRAFT STRUCTURAL REPAIR PROCESS
549. REJECTION CONTROL OF UNWASH
550. RIGHT FIRST TIME INITIATIVE IN REDUCING DOCUMENTATION ERRORS AND DEVIATIONS IN ORGANIZATION
551. RISK BASED TESTING FOR AGILE PROJECTS
552. RISK MANAGEMENT IN COMPLEX INFORMATION TECHNOLOGY (IT) SYSTEM INTEGRATION PROJECT.
553. ROLE OF STATISTICAL METHODS IN CONTROLLING & IMPROVING QUALITY IN PHARMACEUTICAL PRODUCTS.
554. SCOPE AND IMPLEMENTATION OF QUALITY ASSURANCE PLAN IN SYSTEM SIMULATION TESTING PROJECT.

- 555. STAMPING LINE PARTS PASS RATIO IMPROVEMENT AND REWORK REDUCTION
- 556. STANDARDIZING THE PROCESS OF ISSUE OF CERTIFICATE TO CLIENTS
- 557. STATISTICAL APPROACH FOR CAPABILITY IMPROVEMENT IN WINCH FAILURES FOR 1.5 MW TURBINE IN WIND ENERGY
- 558. STATISTICAL PROCESS CONTROL IN FOOD TESTING LABORATORY
- 559. STRATEGIC ANALYSIS & RECOMMENDATIONS FOR SRM SOLUTIONS
- 560. STRATEGIC APPROACH TO A LEARNING ORGANIZATION
- 561. STRATEGIC MANAGEMENT - INTRODUCTION OF COST EFFECTIVE WELDING TECHNOLOGIES IN CONSTRUCTION
- 562. STUDY ON MONITORING AND CONTROLLING REJECTION IN MANUFACTURING PROCESS.
- 563. STUDY ON THE SATISFACTION OF SOFTWARE EMPLOYEES ON PERFORMANCE APPRAISAL IN IT SECTOR.
- 564. SUITABLY UTILISATION OF WASTE BED ASH GENERATED FROM CAPATIVE POWER PLANT IN CEMENT MANUFACTURING PROCESS.
- 565. SUPPLIER QUALITY MANAGEMENT
- 566. TEST TRACKING AUTOMATION" FOR IMPROVEMENT IN PRODUCTIVITY BY REDUCING THE COST AND CYCLE TIME THROUGH DMAIC METHODOLOGY.
- 567. THE IMPLEMENTATION DYNAMICS OF C0NTINUOUS IMPROVEMENT TROUGHOUT THE ORGANISATION BASED ON TOTAL QUALITY MANAGEMENT
- 568. TO IMPROVE THE ON-TIME DELIVERY OF CAMPAIGNS IN THE CAMPAIGN MANAGEMENT PROJECT
- 569. TO IMPROVE THE TESTING PROCESS OF SOFTWARE LANGUAGE CODE(COBOL CODE) USING SIX SIGMA DMAIC METHODOLOGY BY DEVELOPING AN AUTOMATION UTILITY SOFTWARE.
- 570. TOOL FOR SOFTWARE COMPLIANCE GAP ANALYSIS IN DYNAMIC ENVIRONMENT.
- 571. USE OF 8D METHODOLOGY TO IDENTIFY , CORRECT AND ELIMINATE THE RECURRENCE OF CHRONICAL INTERNAL AUDIT MAJOR NON-CONFORMANCES FOR ENGINEERING AND DESIGN ACTIVITIES.
- 572. USE OF COST OF QUALITY MODEL FOR IMPROVING QMS PERFORMANCE
- 573. WARRENTY COST REDUCTION BY TQM APPROACH

**M.S. (Software System)**

- 574. 22KT PLAIN JEWELLERY PROCESS LEAD TIME REDUCTION THROUGH ARTIFICIAL INTELLIGENCE
- 575. 2-D CURSOR MOVEMENT AND TARGET SELECTION USING EEG BASED BRAIN COMPUTER INTERFACE
- 576. 2D IMAGE TO 3D IMAGE CONVERSION AND 3D LENTICULAR PRINTING
- 577. 4G TECHNOLOGY SUPPORT IN SGSN
- 578. A BUG TRACKING SYSTEM FOR COUNTRY'S INFRASTRUCTURE
- 579. A COMPARATIVE STUDY OF SIGNAL DETECTION METHODS FOR SPATIALLY MULTIPLEXED MIMO SYSTEMS
- 580. A GAME BASED LEARNING TOOL AS AN ANDRIOD APP FOR HEARING-IMPAIRED
- 581. A GEOSPATIAL SOFTWARE SYSTEM FOR CROP FORECASTING USING SATELLITE, AGRO-METEOROLOGY AND LAND BASED OBSERVATION
- 582. A GIS BASED INTELLIGENT REALTIME TRACKING SYSTEM FOR PUBLIC SAFETY
- 583. A HEURISTICS BASED APPROACH FOR STORAGE PERFORMANCE QOS MANAGEMENT IN A CLOUD ENVIRONMENT
- 584. A HIGHLY EFFICIENT APPLICATION LEVEL PROCESS MANAGER FOR DISTRIBUTED TEST ENVIRONMENT
- 585. A MACHINE LEARNING APPROACH FOR RANKING ALGORITHM TESTING
- 586. A METHOD AND DESIGN FOR IMPLEMENTATION OF SECONDARY CACHING MECHANISM IN DATA STORAGE ARRAYS FOR IO PERFORMANCE IMPROVEMENTS IN READ INTENSIVE WORKLOADS
- 587. A METHOD TO ENHANCE WRITE I/O PERFORMANCE IN AN EXTERNAL RAID CONTROLLER.
- 588. A METHOD TO IMPLEMENT EFFICIENT DISASTER RECOVERY TECHNIQUE IN NAND FLASH BASED MEMORIES
- 589. A MOBILE APPLICATION TO INTEGRATE PAYMENTS WITH ERP SOFTWARE FOR E-BUSINESS SOLUTION ON ANDROID PLATFORM



- 590. A NEW GENERIC ENGINEERING EXECUTION MODEL FOR PROJECTS WITH FREQUENTLY CHANGING REQUIREMENTS AND HIGHLY DEMANDING CLIENTS.
- 591. A NOVEL APPROACH FOR FABRICATED REVIEW DETECTION
- 592. A PARALLEL APPROACH FOR FAST AND SCALABLE GEOMETRY SIMPLIFICATION ALGORITHM
- 593. A PERVASIVE LIBRARY MANAGEMENT SYSTEM USING FACE RECOGNITION
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- 928. DESIGNING A MODULAR AUTOMATION TEST FRAME WORK
- 929. DESIGNING A MODULAR AUTOMATION TEST FRAME WORK
- 930. DESIGNING AND MIGRATING DESKTOP APPLICATION TO WEB BASED SMARTPHONE APPLICATIONS
- 931. DESIGNING STORAGE CLOUD OVER THE NETWORK ATTACHED STORAGE USING LOW DENSITY VISUALIZATION TECHNIQUE
- 932. DESKTOP AS A SERVICE - PROJECT VM
- 933. DESKTOP SHARING WITH EFFICIENT DESKTOP CAPTURING
- 934. DETECTING SPAM ZOMBIES BY MONITORING OUTGOING MESSAGES USING SPOT
- 935. DETECTING TCP SYN DOS ATTACK IN WIRELESS NETWORK
- 936. DETECTION OF TANK FILTER CLOGGING IN DENOX SYSTEM
- 937. DEVELOP A GENERIC SERVICE BRIDGE FOR ENTERPRISE APPLICATIONS TO SERVE HETEROGENEOUS CLIENTS.
- 938. DEVELOPING A PROFIT DISTRIBUTION MODULE FOR A ISALMIC BANKING SYSTEM
- 939. DEVELOPING DATA PROPAGATION ENGINE FOR OPERATIONAL SYSTEM
- 940. DEVELOPING HARDWARE SIMULATION APPLICATION FOR FACTORY INTERFACE TOOL
- 941. DEVELOPMENT & MANAGEMENT OF CLIENT DATA-SMR
- 942. DEVELOPMENT AND IMPLEMENTATION SUPPORT OF A SERVICE ORIENTED ARCHITECTURE APPLICATION
- 943. DEVELOPMENT OF "SHOW MODEL ANNOTATIONS" TOOL FOR CAD SOFTWARE CREO ELEMENTS/PRO
- 944. DEVELOPMENT OF A BROWSER BASED LAW FIRM INTERVIEWING AND RANKING TOOL
- 945. DEVELOPMENT OF A BUILDING INFRASTRUCTURE MANAGEMENT TOOL
- 946. DEVELOPMENT OF A MIDDLEWARE FOR EFFECTIVE DATA MANAGEMENT IN RETAIL SOFTWARE BASED ON MS SQL SERVER AND .NET PLATFORM
- 947. DEVELOPMENT OF AGILE TESTING FRAMEWORK FOR LEGACY MODERNIZATION PROJECTS IN ORDER TO REDUCE DEFECT DENSITY AND LOWER COST OVERRUN.
- 948. DEVELOPMENT OF AN EXTENDABLE AND USER-CONFIGURABLE TRANSACTION MANAGEMENT FOR RETAIL APPLICATION BASED ON MS SQL SERVER AND VB6 PLATFORM
- 949. DEVELOPMENT OF ANDROID MOBILE APPLICATION TO DISPLAY DATA OF LEGACY 3-PHASE POWER QUALITY RECORDER COMMUNICATING OVER L2CAP LAYER OF BLUETOOTH
- 950. DEVELOPMENT OF APPLICATION BASED PLATFORM THERMAL MANAGEMENT CONTROL
- 951. DEVELOPMENT OF AUTOMATION FRAMEWORK FOR PULSE CLIENT TUNNEL MODES
- 952. DEVELOPMENT OF AUTOMATION FRAMEWORK FOR TOPOLOGY REALISATION AND VISUALIZATION
- 953. DEVELOPMENT OF AUTOMATION FRAMEWORK FOR WEB APPLICATION
- 954. DEVELOPMENT OF BLUETOOTH OSGI BUNDLE FOR LINUX BASED HOME GATEWAY
- 955. DEVELOPMENT OF CHECKOUT SYSTEM FORSTAGE PROCESSING SYSTEM FOR RE-USABLE LAUNCH VEHICLE (RLV)
- 956. DEVELOPMENT OF COMPUTER CENTRE LOAN SYSTEM
- 957. DEVELOPMENT OF DESIGN DOCUMENT CREATOR TOOL FOR STANDARDIZED DESIGN DOCUMENT
- 958. DEVELOPMENT OF DIMENSIONS WITH A NEW APPROACH FOR CAD SOFTWARE PTC CREO PARAMETRIC
- 959. DEVELOPMENT OF DYNAMIC LIBRARY PLUG-IN FEATURE IN C++ BASED PREPROCESSING ENGINE OF SATELLITE DATA PROCESSING FROM INDIAN REMOTE SENSING SATELLITE (IRS)
- 960. DEVELOPMENT OF EXPERIMENTER MESSAGES TO MAINTAIN L4-L7 SESSIONS IN OPENFLOW SWITCHES
- 961. DEVELOPMENT OF FLASH BOOTLOADER FOR AUTOSAR BASED ECUS
- 962. DEVELOPMENT OF INTERFACE ANALYZER AND DEBUGGING TOOLS FOR 2.5GSM PHYSICAL LAYER SOFTWARE
- 963. DEVELOPMENT OF JCL CREATOR TOOL FOR MAINFRAME PROGRAMS.
- 964. DEVELOPMENT OF MOBILE DIGITAL VIDEO RECORDER
- 965. DEVELOPMENT OF ONLINE SYSTEM FOR LOW LEVEL EVENTS MANAGEMENT IN NUCLEAR POWER PLANT
- 966. DEVELOPMENT OF PERFORMANCE ANALYSIS TOOL FOR OPENFLOW1.3.X CONTROLLERS



- 967. DEVELOPMENT OF SMART DIARY APPLICATION ON TIZEN PLATFORM BASED ON USER ACTIVITY
- 968. DEVELOPMENT OF TRAFFIC SEGREGATION FEATURE IN LAYER 2 SWITCH
- 969. DEVELOPMENT OF WEB-BASED TENDER PREPARATION PACKAGE
- 970. DEVELOPMENT OF WORKFLOW MANAGEMENT SYSTEM BASED ON SOFTWARE DESIGN PATTERN
- 971. DEVSING A LOCAL OPERATIONS SUPPORT SUBSYSTEM FOR NOKIA G.S.M. EQUIPMENT
- 972. DIAGNOSTIC TOOL FOR SONICWALL DIRECTORY SERVICES CONNECTOR
- 973. DICOM MESSAGE CONVERTER
- 974. DIGITAL ADVERTISING BASED ON NFC (NEAR FIELD COMMUNICATION)
- 975. DIGITAL ASSET MANAGEMENT APPLICATION
- 976. DIGITAL CONTENT SECURITY ON TRUSTZONE FOR MOBILE DEVICES
- 977. DIGITAL MERCHANDISING SERVICE (WINNING THE PURCHASE AT THE POINT OF SALE)
- 978. DIRECT STORE DELIVERY PUSH NOTIFICATION
- 979. DISASTER MANAGEMENT & EARLY WARNING SYSTEM
- 980. DISCONTINUOUS TRANSMISSION FOR FULL RATE SPEECH TRAFFIC CHANNELS
- 981. DISCOVERING WILDLIFE-THROUGH SEMANTIC SEARCH
- 982. DISCUS (DEBT INFORMATION SYSTEM BY CUSTOMER) AND MY BT (ANDROID APP)
- 983. DISTRIBUTED CACHING FOR COLLABNET TEAMFORGE
- 984. DISTRIBUTED TIME SERIES DATABASES
- 985. DISTRIBUTION ENGINE AND APPLICATION FOR AN ELECTRONIC COUPON SYSTEM
- 986. DLNA BASED MEDIA MANAGER FOR WINDOWS
- 987. DOCUMENT LIFE CYCLE MANAGEMENT
- 988. DOCUMENT PROCESSING AND MANAGEMENT" SOLUTIONS WITH SHAREPOINT 2010 IN HEALTHCARE
- 989. DOMAIN INJECTION FOR DATA WAREHOUSE WITH DATA SOURCE AS WEB
- 990. DRIVER ALERTNESS MONITORING USING FUSION OF FACIAL FEATURES AND BIO-SIGNALS.
- 991. DROWSY DRIVER DETECTION SYSTEM
- 992. DRUG DISCOVERY
- 993. DRUG SAFETY DATA WAREHOUSE AN INTEGRATED PHARMA-COVIGILANCE ANALYTICS SOLUTION A DATA WAREHOUSING PROJECT
- 994. DYNAMIC DATA SHARING IN DISTRIBUTED MEMORY SYSTEMS
- 995. DYNAMIC MASKING FOR WEB BASED APPLICATION
- 996. DYNAMIC RESOURCE ALLOCATION FOR PARALLEL DATA PROCESSING IN CLOUD
- 997. DYNAMIC ROUTING WITH SECURITY CONSIDERATIONS
- 998. DYNAMIC RULE BASED PENALTY ENGINE
- 999. DYNAMIC UI CONFIGURATION FOR WEB BASED TELECOM PRODUCTS
- 1000. DYNAMIC VIEWERS
- 1001. E COMMERCE SITE DEVELOPMENT USING RESPONSIVE WEB DESIGN (RWD)
- 1002. E\*LABOR
- 1003. EAI MESSAGE UPLOAD TO QUEUE
- 1004. EASE LOG
- 1005. EASY GROCERY
- 1006. EASY PAY WITH BAR CODE
- 1007. EASY SUBSCRIPTION OF MOBILE VAS SERVICES
- 1008. EAT - "EMPLOYEE ALLOCATION TRACKER" FOR THE PROJECT BASED ON FACTORY MODEL
- 1009. EAUDIT VDI AUTOMATION
- 1010. E-BUSINESS CODE DEPLOYMENT AUTOMATION
- 1011. E-BUSINESS FOR TELECOM SYSTEMS
- 1012. E-BUSINESS SOFTWARE DEVELOPMENT LIFE CYCLE AND IMPLEMENTATION FOR ONLINE PRODUCTS (EBOOKS).
- 1013. E-COMMERCE AND E-BUSINESS
- 1014. EDW – ICDW FORKLIFT ARCHITECTURE DESIGN FOR DATA LOADING SCHEDULING AND REPORTING
- 1015. EFFECTIVE TECHNIQUES OF MINING SOCIAL EMOTIONS.
- 1016. EFFECTIVE WAY OF DETECTING MALICIOUS PACKET LOSSES

- 1017. EFFICACIOUS ACCIDENTAL PROCTORING OF AUTOMOBILES EXPLOITINGGPS TRACKING AND GSM.
- 1018. EFFICIENT DATA LOSS PREVENTION FOR VIRTUAL MACHINES
- 1019. EFFICIENT DEDUPLICATION TECHNIQUES FOR MODERN BACKUP
- 1020. EFFICIENT INDEXING OF ROAD SEGMENTS AND TRAJECTORIES
- 1021. EFFICIENT UTILIZATION OF SIM CARD IN WIRELESS MOBILE COMMUNICATION
- 1022. E-GOVERNANCE IN THE STATE OF JAMMU AND KASHMIR
- 1023. EHELPLINE-TEST AUTOMATION
- 1024. ELEARNING AS A SERVICE
- 1025. ELECTRIC VEHICLE CHARGE POINT INTERACTIVE MONITORING SYSTEM
- 1026. ELECTRONIC DOCUMENT SECURITY
- 1027. ELECTRONIC HEALTH RECORD SYSTEM FOR DIAGNOSIS AND MONITORING OF PATIENTS
- 1028. ELUDE NETWORK ATTACK USING PORT SCANNING
- 1029. EMBEDDED LINUX BASED SMART ENERGY METER
- 1030. E-MONEY, IMPLEMENTATION OF WAGES PROTECTION SYSTEM (WPS)
- 1031. EMPLOYEE LOGISTICS MANAGEMENT SOFTWARE
- 1032. EMS ONLINE 24/7
- 1033. ENABLE FIREWALL COMPLIANCE IN IGNITE-UX FOR SYSTEM INSTALLATION, OS ARCHIVE AND RECOVERY
- 1034. ENABLING BLACKLIST VALIDATION THROUGH ENTERPRISE SECURITY API
- 1035. ENABLING DATA SECURITY IN CLOUD COMPUTING AND DETECTION OF MONEY LAUNDERING ACTIVITIES
- 1036. ENABLING JOURNALING AND AUTOMATION FOR PART FAMILY SOFTWARE IN NX
- 1037. ENABLING PUBLIC AUDITABILITY AND DATA DYNAMICS FOR STORAGE SECURITY IN CLOUD COMPUTING
- 1038. ENABLING SECURE AND EFFICIENT RANKED KEY WORD SEARCH OVER OUT SOURCED DATA
- 1039. ENCEINTE ENCRYPTION ON LIMITED DEVICES WITH ECC
- 1040. ENCRYPTION & MASKING OF PERSONAL IDENTIFIER TABLE
- 1041. ENERGY DASHBOARD HYBRID MOBILE APPLICATION
- 1042. ENERGY MONITORING SYSTEM
- 1043. ENGINEERING & MANAGING AGILE DELIVERY MODEL
- 1044. ENHANCE NETWORK PRODUCT SUSTENANCE ENGINEERING BY MINING THE DATA FROM VARIOUS SOURCES WITH THE HELP OF NLP
- 1045. ENHANCED AUTOMATED TEST SCRIPT FOR FUNCTION BLOCK LIBRARY
- 1046. ENHANCED FINANCIAL LIQUIDATION MANAGEMENT SYSTEM (EFILMS)
- 1047. ENHANCED REVERSIBLE DATA HIDING
- 1048. ENHANCED TEST COVERAGE WITH AUTOMATION SCRIPTS
- 1049. ENHANCEMENT OF PATIENT ACCOUNTING SYSTEMS IN TERMS OF BILLING THE CLAIMS TO MEDICARE PAYER, WHICH SHOULD BE FREE FROM PROVIDER LIABLE DAYS
- 1050. ENHANCEMENTS IN PERFORMANCE AND SCALABILITY OF SWB
- 1051. ENHANCING AUDIT SERVICES WITH SUPERKEYCODE ALGORITHM
- 1052. ENHANCING CLEARCASE SERVER MASTERSHIP REQUEST FROM CLIENT WEB-UI
- 1053. ENHANCING DATA LOSS PREVENTION SOLUTIONS USING LEGAL E-DISCOVERY SOLUTIONS
- 1054. ENHANCING INFORMATION ARCHIVING IN AN EVOLVING COMMUNICATION ENVIRONMENT
- 1055. ENHANCING THE PERFORMANCE OF WEB APPLICATION BY SEPARATING USER INTERFACE AND BUSINESS LOGIC
- 1056. ENHANCING WIRESHARK FOR 802.11AC
- 1057. ENTERPRISE ARCHITECTURE CONSIDERATIONS FOR EDUCATION BUSINESS PROCESS AS A SERVICE (EDUCATION BPAAS)
- 1058. ENTERPRISE ARCHITECTURE FOR MOBILE BANKING SYSTEM
- 1059. ENTERPRISE DATA MANAGEMENT SYSTEMS
- 1060. ENTERPRISE DATA WAREHOUSE DESIGN
- 1061. ENTERPRISE DATA WAREHOUSE DIRECT SOURCING PROJECT FOR HEALTHCARE INDUSTRY
- 1062. ENTERPRISE HUMAN TRAFFIC ANALYSIS
- 1063. ENTERPRISE INTEGRATION PATTERNS
- 1064. ENTERPRISE LOGGING FRAMEWORK

- 1065. ENTERPRISE MOBILITY AS A SERVICE
- 1066. ENTERPRISE PROJECT MANAGEMENT DASHBOARD
- 1067. ENTERPRISE RESOURCE PLANNING & RELATIVE ANALYSIS OF IT'S TECHNOLOGIES AND PRODUCTS.
- 1068. ENTERPRISE SEARCH-IMPLEMENTATION OF REFINERS.
- 1069. ENTERPRISE SOLUTION FOR MANAGING ANIMAL HEALTHCARE
- 1070. ENTERPRISE TRANSACTIONAL ERROR HANDLER
- 1071. ENTERPRISE TRANSMITTER SERVICE BUS (E-TBS)
- 1072. EPRINT PRINTER DRIVER
- 1073. E-RECRUITMENT UTILITY
- 1074. ERP IMPLEMENTATION AS AN ORGANIZATIONAL CHANGE EXERCISE: A CASE STUDY OF A POWER TRANSMISSION UTILITY
- 1075. ERP INTEGRATION GATEWAY
- 1076. ERROR MANAGEMENT ONLINE
- 1077. ESB INTEGRATIONS AND SERVICE IMPROVEMENT
- 1078. E-TASK MANAGING SYSTEM
- 1079. ETHERNET BASED BOOTLOADER
- 1080. ETL FRAMEWORK FOR PURE DATA SYSTEM FOR ANALYTICS
- 1081. ETL TESTING STRATEGY: A CUSTOMIZED APPROACH TO OVERCOME THE CHALLENGES
- 1082. EUROPAY MASTER VISA MORE SECURED PAYMENT GATEWAY
- 1083. EVALUATING MULE ESB AS AN EFFECTIVE MIDDLEWARE
- 1084. EVALUATING NOSQL DATABASE PERFORMANCE ON LARGE DATA VOLUME
- 1085. EXPERTNET VOIP ASSESSMENT TOOL
- 1086. EXTENDING CONNECTIVITY THROUGH PEER'S NETWORK IN MOBILE DEVICES
- 1087. EXTENDING RDBMS TO CLUSTERS AND CLOUD
- 1088. EXTENSIONS TO NX LARGE ASSEMBLY MANAGEMENT USING TEAMCENTER
- 1089. EXTERNAL MANUFACTURER'S COMPONENT STEWARDSHIP REPORTING
- 1090. EXTERNAL MEMORY SORTING
- 1091. FABLED FORTRESS
- 1092. FACIAL RECOGNITION & CASE MANAGEMENT
- 1093. FACULTY COMPETENCY INFORMATION SYSTEM
- 1094. FALLBACK VRF INFRASTRUCTURE FOR IOS-XR
- 1095. FARE CALCULATOR FOR WINDOWS PHONE
- 1096. FAULT MANAGEMENT IN DISTRIBUTED WIRELESS NETWORK MANAGEMENT SYSTEM
- 1097. FINANCE PROCESSING SYSTEM
- 1098. FINANCIAL ANALYTICAL AND PREDICTION REPORTS USING REAL CODED GENETIC ALGORITHM
- 1099. FLASHPLAYER VIDEO AND GRAPHICAL ACCELERATION USING XVBA PIPELINE ON G-SERIES EMBEDDED PLATFORM
- 1100. FLAT FILE DATABASE
- 1101. FLEXIBLE FRAMEWORK FOR QUALITY ASSURANCE TESTING AND AUTOMATION
- 1102. FLIGHT QUEST
- 1103. FOLLOWTHY – ONE STOP TRACKING SOLUTIONS
- 1104. FORECASTING MODEL
- 1105. FPGA-BASED PCI EXPRESS STORAGE CONTROLLER AND DEVICE SIMULATION
- 1106. FRAMEWORK DESIGN AND DEVELOPMENT FOR BEDSIDE MEDICATION AND FINANCIAL MANAGEMENT MODULE OF HEALTHFORE'S – ENTERPRISE HEALTH SYSTEM
- 1107. FRAMEWORK FOR BIG DATA SYSTEMS AND USING GOOGLE'S PROJECT LOON AS AN EXAMPLE
- 1108. FRAMEWORK FOR ENCRYPTION AND DECRYPTION OF BUSINESS CRITICAL ENTITIES
- 1109. FRAMEWORK FOR ENTERPRISE APPLICATION INTEGRATION USING COMMAND PATTERN TO SCHEDULE, SYNCHRONIZE, AUTO RETRY TRANSACTIONS AND PUBLISH-SUBSCRIBE AND MESSAGE BROKER PATTERN TO PROCESS TRANSACTIONS
- 1110. FRAMEWORK FOR MINING EVOLVING USER PROFILES IN DYNAMIC WEB SITES (WEB BASED)
- 1111. FRAMEWORK FOR OPENFLOW PROTOCOL CONFORMANCE TESTING
- 1112. FRAMEWORK TO EXPOSE BUSINESS LOGIC TO USER INTERFACE

- 1113. FRAMEWORK TO EXPOSE ORACLE COHERENCE IN-MEMORY GRID DATA THROUGH WEB-SERVICES
- 1114. FRAMEWORK TO SUPPORT CUSTOM GRAPHICAL INSTRUMENTS FOR CALIBRATION AND MEASUREMENT TOOL
- 1115. FTP IMPLEMENTATION ON ANDROID
- 1116. FULL VIEW CUSTOMER CARE (FCC) TOOL - DEVELOPMENT
- 1117. FUNCTIONAL PROGRAMMING AND WEB FRAMEWORK IN F#
- 1118. FUNDS TRANSFER IN BANKING USING PEGASYSTEMS
- 1119. FUSION HCM COEXISTENCE IMPLEMENTATION FOR A LEGACY ERP SYSTEM.
- 1120. FUSION SALES FORECASTING EXTENSIBILITY
- 1121. FUZZY CLUSTERING MAPPING SYSTEM FOR EXAMINING AND LOCATING OFFENSIVE HOT SPOTS
- 1122. GAMIFICATION OF ENTERPRISE PROCESSES
- 1123. G-CLOUD: CLOUD COMPUTING IN E-GOVERNANCE- POSSIBILITIES, CHALLENGES AND ROAD AHEAD
- 1124. GENERAL LEDGER TO FDWH INTERFACE OR FEED
- 1125. GENERATING AUTOMATIC XSLT TRANSFORMATIONS
- 1126. GENERATION OF CODE THROUGH SPEECH
- 1127. GENERIC DISTRIBUTED LOGGING FRAMEWORK FOR WEB SERVICE
- 1128. GENERIC FRAMEWORK FOR APPLICATION MONITORING
- 1129. GEOGRAPHIC REDUNDANCY MECHANISM IN MOBILE DATA NETWORKS
- 1130. GEOGRAPHICALLY SEPARATED DATABASE REPLICATION - STRATEGIES AND CHALLENGES
- 1131. GEO-LOCATION TRACKER & ASSISTOR
- 1132. GEOSPACIAL SURVILLANCE IN HEALTH
- 1133. GLOBAL BROKER ENTERPRISE SYSTEM (GLOBES)
- 1134. GLOBAL DISTRIBUTION RELEASE (GDR) CHECKLIST AUTOMATION
- 1135. GLOBAL PAYMENTS CHECK-IN AND BIOMETRIC PAYMENTS
- 1136. GOA EXCISE MANAGEMENT SYSTEM (GEMS)
- 1137. GOAT TEST AUTOMATION
- 1138. GPU BASED SIMULTANEOUS ITERATIVE CT RECONSTRUCTION
- 1139. GRAPH ANALYSIS USING HADOOP AND NOSQL SOLUTION
- 1140. GRAPH BASED DESKTOP SEARCH ENGINE
- 1141. GRAPH DATABASES IN GLOBAL PAYROLL
- 1142. GRAPHICS RENDERING FOR HIGH-END CLUSTER DISPLAYS IN AUTO-MOTIVES
- 1143. GRID SERVICE RELIABILITY MODELING & OPTIMAL TASK SCHEDULING CONSIDERING FAULT RECOVERY
- 1144. GSM BASED REVENUE PROTECTION SYSTEM FOR ELECTRICITY UTILITY
- 1145. HANDOVER SCALING IN LTE - A SIMULATED APPROACH
- 1146. HAYATE
- 1147. HCI (HUMAN COMPUTER INTERACTION) INDUCED MONITORING AND SELF HELP FOR PATIENTS OF PALSY AND PARALYSIS
- 1148. HEADSET SETTINGS & CUSTOMIZATIONS
- 1149. HEALTH MONITORING INFORMATION DISPLAY APPLICATION
- 1150. HIGH AVAILABILITY DATABASE ARCHITECHTURE IN BANKING APPLICATIONS
- 1151. HIGH AVAILABILITY SOLUTION FOR A OLTP DATABASE SYSTEM
- 1152. HIGH-AVAILABILITY IMPLEMENTATION AND PERFORMANCE OPTIMIZATION IN SQL SERVER
- 1153. HOME LOCATION REGISTER SIMULATOR FOR MOBILE NETWORKS
- 1154. HOSPITAL MANAGEMENT SYSTEMS
- 1155. HP EVA DSM FOR P6X00 FAMILY OF DISK ARRAY ON WINDOWS 2012 R2
- 1156. HRMS(HUMAN RESOURCE MANAGEMENT SYSTEM)
- 1157. HTTP TRAFFIC OPTIMIZATION BETWEEN DATA CENTER AND BRANCH
- 1158. HUMAN FACE RECOGNIZER
- 1159. HUMAN RESOURCE MANAGEMENT SYSTEM USING MOBILE APPLICATION.
- 1160. HVAC CONTROL SIMULATOR WITH SCRIPT PLAYER AND RECORDER
- 1161. IDEATION – IDEA MANAGEMENT APPLICATION
- 1162. IDENTIFICATION OF KEY NODES IN DIFFUSION MODEL FOR SOCIAL NETWORKS
- 1163. IDENTIFICATION OF KEYWORDS FROM BOOKS OR TEXT FILES

- 1164. IDENTITY SAFE EASY CARDS
- 1165. ILLUMINATION CONTROL ON EMBEDDED MULTI-FUNCTION DISPLAY (MFD)
- 1166. IMAGE FAILURE RECOGNITION (IFR) FOR ADVANCED DRIVER ASSISTANCE SYSTEM (ADAS)
- 1167. IMAGE METRIC FORMULATION AND RETRIEVAL
- 1168. IMAGE PROCESSING ALGORITHMS ON GPU (GRAPHICS PROCESSING UNIT)
- 1169. IMPACT OF BLACK HOLE NODES ON AD HOC NETWORKS AND RESOLUTION
- 1170. IMPLEMENT ANTI-SKID CONTROL (STABILITY CONTROL) IN TWO WHEELERS
- 1171. IMPLEMENTATION FOR FINDING PACKET'S PATH IN LINK AGGREGATOR USING PACKET INFORMATION.
- 1172. IMPLEMENTATION OF A DATA MART FOR CHILD DATA ANALYSIS
- 1173. IMPLEMENTATION OF AGGREGATES USING OPC SPECIFICATION
- 1174. IMPLEMENTATION OF BCV ON HP MC SERVICEGUARD CLUSTER FOR HIGH AVAILABILITY ENVIRONMENT
- 1175. IMPLEMENTATION OF CENTRALISED NETWORK ANALYZER WITH STREAMING FOR MULTIMEDIA WIRELESS SENSOR NETWORK BASED ACOUSTIC SURVEILLANCE
- 1176. IMPLEMENTATION OF DATA MINING (BIG DATA) TO HELP LIFE INSURANCE COMPANIES MAKE BETTER UNDERWRITING DECISIONS.
- 1177. IMPLEMENTATION OF ERROR CORRECTION AND DETECTION LOGIC FOR LAUNCH VEHICLE COMPUTERS
- 1178. IMPLEMENTATION OF GMPLS OVER OPTICAL BACKBONE NETWORK
- 1179. IMPLEMENTATION OF HUMAN RESOURCE INFORMATION SYSTEM
- 1180. IMPLEMENTATION OF JAVA BASED TEST DRIVEN DEVELOPMENT
- 1181. IMPLEMENTATION OF MVC 4.0, APPFABRIC AND WEB API IN E-COMMERCE WEB APPLICATION
- 1182. IMPLEMENTATION OF NOSQL DATABASE FOR STORAGE AND ANALYTICS OF SMART METER DATA
- 1183. IMPLEMENTATION OF ONLINE BOOKING SYSTEM FOR AUDIO VISUAL UNIT AND CC LABS
- 1184. IMPLEMENTATION OF OPTICAL CHARACTER RECOGNITION ALGORITHM
- 1185. IMPLEMENTATION OF PPP DIAL-UP CONNECTION OVER ETHERNET
- 1186. IMPLEMENTATION OF SERVER BASED FAST CHANNEL CHANGE FOR DIGITAL VIDEO BROADCASTING (DVB) – IPTV SYSTEMS
- 1187. IMPLEMENTATION OF WIRELESS SENSOR TECHNOLOGY OF MILITARY APPLICATION
- 1188. IMPLEMENTATION OF XML BULK COMPARISON TOOL DRIVEN BY RULES ENGINE & GENERATING SUMMARY REPORTS
- 1189. IMPLEMENTING ARCHITECTURAL AND DESIGN PATTERN (MVC + LAYERED) USING SECURED NETWORK CHANNEL FOR LOGISTICS AND SUPPLY CHAIN MANAGEMENT.
- 1190. IMPLEMENTING TRIGGERING USING IBM WEBSPPHERE MQ
- 1191. IMPLEMENTING DSIM ALGORITHM TO REMOVE COMPLEXITY & INCREASE EFFICIENCY FOR MARKET ANALYSIS DATA SET: A GREEN COMPUTING APPROACH"
- 1192. IMPORT GEO-DATA USING INTELLIGENT MAPING AND IMPLMENTATION OF BASIC FEATURES OF GOEGRAPHICAL INFORMATION SYSTEM
- 1193. IMPROVEMENT OF EFFICIENCY IN DEFECT FIXING FOR DEVELOPERS WITH NEW PROCESS/Framework FOR VALIDATION AND TRACKING.
- 1194. IMPROVEMENT ON TESTING AND QUALITY ASSURANCE PROCESS
- 1195. IMPROVEMENTS IN SPIRAL MODEL
- 1196. IMPROVING EFFECTIVENESS OF AUTOMATED SOFTWARE TESTING IN THE CYCLE TIME REDUCTION AND REUSABILITY
- 1197. IMPROVING MODIFIABILITY IN WEB-APP DEVELOPMENT
- 1198. IMPROVING NFS PERFORMANCE BY AUTOMATIC LOAD BLANACING BASED ON CACHING LOCATION IN A CLUSTERED NAS APPLIANCE.
- 1199. IMPROVING THE EFFICIENCY OF MANUAL TESTING
- 1200. IMPROVISING DEVELOPMENT METHODOLOGIES
- 1201. IMPS – IMMEDIATE PAYMENT SERVICE
- 1202. IN MEMORY DATA GRIDS FOR HIGHLY SCALABLE SOFTWARE APPLICATION
- 1203. INCIDENT MONITORING TOOL USING ORACLE APPLICATION EXPRESS
- 1204. INDIRECT TAX SOLUTION
- 1205. INFORMATION MANAGEMENT AND DISCOVERY
- 1206. INFORMATION RETRIEVAL USING INVERTED INDEXING

- 1207. INFORMATION SECURITY MANAGEMENT
- 1208. INFORMATION SYSTEMS ARCHITECTURE
- 1209. INFRARED AND DC MOTOR INTERFACING USING ARDUINO UNO
- 1210. INFRASTRUCTURE SETUP FOR THE PRODUCTION ENVIRONMENT
- 1211. IN-MEMORY DATABASE CACHING FOR ENTERPRISE ANALYTICS
- 1212. INSTALLATION VERIFICATION RETEST IN STB
- 1213. INSTRUMENT INFORMATION SYSTEM
- 1214. INSURANCE SYSTEM DEVELOPMENT USING SOFTWARE ENGINEERING
- 1215. INTEGRATED AVIONICS SMART DISPLAY SYSTEM FOR MILITARY TRAINER AIRCRAFT
- 1216. INTEGRATED CHAT ENVIRONMENT
- 1217. INTEGRATED DEPLOYMENT AUTOMATION SOLUTION FOR AGILE SOFTWARE DEVELOPMENT
- 1218. INTEGRATED LEARNING PLAN WITH MULTIMODAL LEARNING INTEGRATED LEARNING PLAN WITH MULTIMODAL LEARNING
- 1219. INTEGRATED MEDIATION SOLUTION FOR PUSH TO TALK SWITCHES
- 1220. INTEGRATED PRO/E MANAGER
- 1221. INTEGRATED TEST BED PROVISIONING TOOL
- 1222. INTEGRATED TESTING ENVIRONMENT
- 1223. INTEGRATED TRAVEL AND CLAIMS MANAGEMENT SYSTEM
- 1224. INTEGRATING AN E-COMMERCE SITE WITH E-BAY
- 1225. INTEGRATION AND AUTOMATION OF CONFIGURATION MANAGEMENT TOOL
- 1226. INTEGRATION OF CATALOGUE ITEM FROM EXTERNAL FILE (IN XML, CSV, ODS, SIMPLIFIED TAB FORMATS) INTO A SUPPLIER SYSTEM USING SPRING BATCH API"
- 1227. INTEGRATION OF ENODEB IN A 4TH GENERATION WIRELESS NETWORK
- 1228. INTEGRATION OF HUBWOOL CLOUD PORTAL WITH SAP
- 1229. INTEGRATION OF PAYPAL AND GOOGLE CHECKOUT TO AN E-COMMERCE SITE
- 1230. INTEGRATION OF POWERPATH MIGRATION ENABLER FEATURE OF PSEUDO-TO-PSEUDO DEVICE MIGRATION TECHNOLOGY WITH OPEN REPLICATOR MIGRATION TECHNOLOGY
- 1231. INTEGRATION OF PRO/ENGINEER WITH TEAMCENTER ENTERPRISE
- 1232. INTELLIGENCE AUTOMATION SYSTEM FOR GENERAL PURPOSE RESIDENTIAL AND INDUSTRIAL APPLICATIONS
- 1233. INTELLIGENT CONTINUES INTEGRATION FRAMEWORK
- 1234. INTELLIGENT EMERGENCY SYSTEM
- 1235. INTELLIGENT MSC POOLING BASED ON USER'S CALLING PATTERN
- 1236. INTELLIGENT VIRTUAL SERVICE NETWORK FOR HETEROGENEOUS APPLICATION INTEGRATION
- 1237. INTELLILYTICS
- 1238. INTERACTIVE CLASS ROOM
- 1239. INTERACTIVE FLOOR FOR DIGITAL ENTERTAINMENT& ADVERTISEMENT
- 1240. INTEREST LIST SERVICE
- 1241. INTERFACE MANAGER (IMGR)
- 1242. INTERGRATE CAN PROTOCOL AND SMS OVER GSM NETOWRK
- 1243. INTERNAL AUDIT AUTOMATION SOLUTION
- 1244. INTERNATIONALIZED DOMAIN NAME SUPPORT IN APPLICATION DELIVERY CONTROLLERS
- 1245. INTERNET OF THINGS REALIZATION USING ANDROID PHONE
- 1246. INTERNET SALES APPLICATION FOR SAP ARCHITECTURE
- 1247. INTRUSION DETECTION SYSTEM
- 1248. INVENTORY MANAGEMENT SYSTEM
- 1249. IOS AUTOMATION FRAMEWORK
- 1250. IP VALIDATION THROUGH DYNAMICALLY UPDATED WATCHLIST IN PATTERN BASED SECURITY SYSTEM
- 1251. ISDN CPE PLATFORM FOR VOICE
- 1252. IST-CORTEX STANDBY IMPLEMENTATION
- 1253. IVRS CC INTERFACE
- 1254. JEWELRY MANAGEMENT SYSTEM USING RFID EMBEDDED DEVICE
- 1255. JIFFY LUBES
- 1256. JOB DEFINITION SYNTAX VALIDATION IN BATCH PROCESSING

- 1257. KNOWLEDGE BASED EXPERT SUPPORT SYSTEM
- 1258. KNOWLEDGE INCLUSIVE APPROACH IN "DIRECT BENEFIT TRANSFER SCHEME" OF GOVERNMENT OF INDIA
- 1259. KNOWLEDGE MANAGEMENT SYSTEM
- 1260. L2VPN MPLS PSEUDO-WIRE FOR CABLE MODEM TERMINATING SYSTEM
- 1261. LAB INVENTORY MANAGEMENT WITH SEARCH AND SHARED ACCESS PROVISIONS
- 1262. LAN BASED LEARNING SYSTEM
- 1263. LANGUAGE BASED TAG RECOMMENDER SYSTEM (LABTRES)
- 1264. LARGE NETWORK EMULATION SUPPORT ON ASR9K-PAGENT
- 1265. LARGE-SCALE DATA PROCESSING OF SOCIAL MEDIA FEEDS TO FIND OUT USER RESPONSE TRENDS
- 1266. LATENCY BASED DYNAMIC LOAD BALANCER ALGORITHM
- 1267. LAUNCH VEHICLE DATA MANAGEMENT SYSTEM (LVDMS)
- 1268. LAYER 2 SIMPLE SHORTEST PATH PROTOCOL
- 1269. LEARNING CONTEXT IN MOBILE AND USER ADAPTIVE MOBILE APPLICATION
- 1270. LEGACY MODERNIZATION
- 1271. LEVERAGING ANDROID POWERED DEVICES FOR IMPROVED EFFICIENCY OF INTEGRATED CITIZEN FACILITATION CENTERS AKA SETU
- 1272. LIFE ASSISTANT MOBILE APPLICATION
- 1273. LINX(COMPLETE RESERVATION SYSTEM)
- 1274. LOAD BALANCING
- 1275. LOAD TESTING OF SMART ENERGY METER SYSTEM
- 1276. LOCAL IP ACCESS AND SELECTED IP TRAFFIC OFFLOAD FOR HOME-NODEB
- 1277. LOCATION ALERT SYSTEMS FOR ANDRIOD PHONES
- 1278. LOCATION AWARE WEB UBIQUITOUS COMPUTING
- 1279. LOCATION BASED CELLULAR SERVICES
- 1280. LOCATION BASED DATA MAPPING FOR PLANT OPERATION
- 1281. LOCATION BASED, HANDWRITTEN MESSAGE EXCHANGE WITH AUGMENTED REALITY
- 1282. LOCATION EXTRACTION FROM TEXT
- 1283. LOGICAL SWITCH FIRMWARE UPDATE USING HP CI-MANAGER
- 1284. LONGEVITY TEST MODEL FOR PACKET DATA NETWORK GATEWAY
- 1285. LOOSELY COUPLED, COMPLETE TEST MANAGEMENT SYSTEM
- 1286. LTE UE SIMULATOR
- 1287. LXC [LINUX CONTAINERS] ON ARM[OMAP]
- 1288. LYRICS APPLICATION FOR ANDROID
- 1289. MAC TABLE FULL (THRESHOLD) NOTIFICATION FOR PACKET OPTICAL NETWORKING PLATFORM
- 1290. MACHINE LEARNING APPROACH FOR SMILE DETECTION IN REAL TIME IMAGES
- 1291. MAINFRAME LIBRARY SEARCH TOOL
- 1292. MAINFRAMES, THE LEGACY SYSTEMS – FEASIBILITY IN MODERN IT INFRASTRUCTURE & A CASE STUDY ON CORPORATE BANKING (MAINFRAMES IN BANKING SECTOR)
- 1293. MAKING DNS SECURE USING CRYPTOGRAPHY
- 1294. MANAGE REQUEST SERVICES
- 1295. MANAGEMENT OF HUMAN IMPACT ON INFORMATION SECURITY (MHIIS)
- 1296. MANAGEMENT OF IN HOUSE CERTIFICATION QUESTION BANK FOR CONTINUOUS EDUCATION PROGRAM
- 1297. MANAGEMENT SYSTEM FOR RISK DATA
- 1298. MANAGING PARALLEL CHANGE IN LARGE SCALE, GEOGRAPHICALLY SPREAD PRODUCTION ENVIRONMENTS
- 1299. MANAGING PRODUCT HIERARCHY GLOBALLY
- 1300. MAPREDUCE BASED DESIGN FOR MULTI-PLANAR REFORMAT(MPR) OF COMPUTED TOMOGRAPHY (CT) IMAGES
- 1301. MASTER DATA MANAGEMENT (MDM) FOR ERP ( SAP)
- 1302. MASTER DATA MANAGEMENT USING HADOOP ECO-SYSTEM
- 1303. MASTER TESTING TRACKER
- 1304. MEDICARE PAYMENT SYSTEM FOR HEALTH CARE SERVICES
- 1305. MEMORY LEAKS DETECTION TEST FOR C++ CODE IN WINDOWS ENVIRONMENT

- 1306. MEMORY MANAGER
- 1307. METAL (MCAFFEE EASY TEST AUTOMATION LANGUAGE)
- 1308. META-MODEL FRAMEWORK
- 1309. METER DATA MANAGEMENT (MDM) SYSTEM
- 1310. METHOD AND APPARATUS TO DYNAMICALLY OPTIMIZE THE WORKLOADS ON POWER SERVERS
- 1311. METHOD AND APPARATUS TO ENHANCE DYNAMIC TRACING INFRASTRUCTURE IN IBM UNIX SYSTEM
- 1312. METHOD TO MIGRATE EDI PARTNERS FROM GENTRAN TO STERLING INTEGRATOR
- 1313. METHODOLOGY AND IMPLEMENTATION OF EFFICIENT MINING AND PREDICTION IN A MOBILE COMMERCE ENVIRONMENT
- 1314. METRICS IN SOFTWARE TEST PLANNING & TEST DESIGN PROCESSES FOR FINANCIAL SERVICES
- 1315. MICRO FINANCIAL INCLUSION IN INDIA – A TECHNICAL OVERVIEW
- 1316. MIDDLEWARE FOR SECURE COMMUNICATION AND ITS USAGE ON VIMPACT
- 1317. MIGRATING TO BIG DATA PROCESSING USING NOSQL DATABASES FROM TRADITIONAL SQL BASED SYSTEMS FOR HUGE ONLINE COMMERCE DATA VOLUME TRANSACTIONS
- 1318. MIGRATION OF A REPORTING SOLUTION FROM TERADATA TO BIGDATA
- 1319. MINING AND CATEGORIZING REVIEWS
- 1320. MINING PRODUCT FEATURES AND RANKING PRODUCTS FROM ONLINE CUSTOMER REVIEWS.
- 1321. MIS FOR ONLINE TRAINING AND PLACEMENT
- 1322. MIXED SKU CARTON SPLIT
- 1323. MOBILE APP – FOR HEALTH INSURANCE MANAGEMENT
- 1324. MOBILE APPLICATION FOR REAL-TIME ANALYTICAL CUSTOMER RELATIONSHIP MANAGEMENT IN BANKING
- 1325. MOBILE APPLICATION FOR TEAM COLLABORATION
- 1326. MOBILE BANKING IN CANADA
- 1327. MOBILE BANKING SECURITY BY APPLYING ACCESS MANAGEMENT SOLUTION
- 1328. MOBILE BASED MARATHI/HINDI TEXT TO SPEECH
- 1329. MOBILE CLOUD COMPUTING
- 1330. MOBILE COMMERCE USING IBM WORKLIGHT
- 1331. MOBILE COMPUTER – AN EXTENDED DESKTOP MODE FOR MOBILES
- 1332. MOBILE ELECTRONIC PROGRAM GUIDE”(MEPG)
- 1333. MOBILE MENU TREE TRAVERSAL TOOL (MMTT)
- 1334. MOBILE PERFORMANCE MANAGEMENT
- 1335. MOBILE PHONE AS AN AUTHENTICATION DEVICE
- 1336. MOBILE PHONE RADIO PERFORMANCE ANALYZER
- 1337. MOBILE SHOPPING
- 1338. MOBILE VERSION OF 2XB SMART APPROVAL
- 1339. MOBILE/COMPUTER DATA TRANSFER AND REPORTING VIA SAS ODS
- 1340. MODELING OF 3D REFRACTIVE OBJECTS BY REAL-TIME LASER AND VIDEO STREAMS
- 1341. MODELLING ECONOMIC TRENDS USING BIG-DATA MODELLING AND MACHINE LEARNING TECHNIQUES
- 1342. MODERNIZATION AND UPGRADATION OF TOTELISATOR (TOTE) SYSTEM
- 1343. MODULAR LINE CARD FOR ROUTER PLATFORMS
- 1344. MODULE-VIEW-CONTROLLER ARCHITECTURE IN MULTI FUNCTIONAL DISPLAYS
- 1345. MONITORING & NOTIFICATION SYSTEM FOR AS, APPLICATION SERVICE & USAGE ANALYSIS FOR MAS (MARKETING ANALYTICS SOLUTIONS) APPLICATIONS
- 1346. MONITORING AND REPORTING TOOL FOR CLOUD BASED VIDEO SURVEILLANCE RECORDERS
- 1347. MONITORING DASHBOARD FOR DISTRIBUTED SYSTEM
- 1348. MONITORING SYSTEM EVENTS OF SERVERS ON ANDROID DEVICE
- 1349. MONTHLY SLA REPORTING AND DASHBOARD TOOL
- 1350. MORTGAGE INTEREST RATE VARIANCE AND BALANCE ANALYSIS TOOL
- 1351. MPEG2-TS PLAYBACK FRAMEWORK FOR IOS (WITH DYNAMIC ADVERTISEMENT INSERTION SUPPORT)
- 1352. MSI PACKAGE SCRUTINIZER TOOL



- 1353. MSI PACKAGING AUTOMATED
- 1354. MSKPI PROCESS FRAMEWORK
- 1355. MULTI SESSION IN A SCANNER
- 1356. MULTI VENDOR SHOPPING CART
- 1357. MULTICAST ONLY FAST REROUTE(MOFRR) IP SOLUTION
- 1358. MULTI-CHANNEL INTEGRATION WITH CORE BANKING
- 1359. MULTIFILE CONVERTOR TOOL AND ITS IMPLEMENTATION IN PERFORMANCE TESTING
- 1360. MULTI-FORMAT DOCUMENT PROCESSOR LIBRARY - TO PROGRAMMATICALLY WORK WITH ELECTRONIC DOCUMENTS
- 1361. MULTILINGUAL OPERATING SYSTEM
- 1362. MULTIMEDIA & COMPUTER TELEPHONY INTEGRATION (CTI)
- 1363. MULTIMEDIA AUTOMATION FRAMEWORK
- 1364. MULTI-MODALITY VIEWING ON ULTRASOUND IMAGING SYSTEM
- 1365. MULTI-OPERATOR CORE NETWORK SHARING IN LTE
- 1366. MULTIPATH INTERDOMAIN ROUTING VIA DEVIATION FROM PRIMARY PATH.
- 1367. MULTI-PLATFORM VEHICLE TRACKING WITH COST ANALYSIS
- 1368. MULTIPLE SENSOR DATA SIMULATION (MSDS)
- 1369. MULTIPLE USER TERMINAL IN WCDMA PROTOCOL IN 3G
- 1370. MULTIPLE VLAN REGISTRATION PROTOCOL
- 1371. MULTIPURPOSE SMART CARD USING RFID
- 1372. MULTI-VIEW FACE DETECTION AND COARSE POSE ESTIMATION
- 1373. NATIVE EXTENSIONS FOR ADOBE AIR
- 1374. NDMP DEBUG LOG ANALYZER
- 1375. NEAR FIELD MOBILE COMMUNICATION
- 1376. NETWORK AND SYSTEM RELATED INFORMATION COLLECTOR (NSIC).
- 1377. NETWORK BASED MALWARE DETECTION SYSTEM
- 1378. NETWORK DEVICE SIMULATOR FOR USE IN MANAGEMENT ENVIRONMENT
- 1379. NETWORK DEVICE VIRTUALIZATION USING LINUX NAMESPACE INFRASTRUCTURE
- 1380. NETWORK ELEMENT SIMULATOR FOR TESTINO EMS
- 1381. NETWORK MANAGEMENT AND CONTROL SYSTEM – ALARM SERVICE
- 1382. NETWORK MANAGEMENT USING NETCOOL OMNIBUS
- 1383. NETWORK MONITORING SYSTEM FOR WIRE AND WIRELESS NETWORK
- 1384. NETWORK PERFORMANCE EVALUATION USING NCTUNS 6.0 NETWORK SIMULATOR & EMULATOR
- 1385. NETWORK SECURITY THREAT DETECTION AND PREVENTION SOLUTION FOR BANKS
- 1386. NETWORK SECURITY THROUGH STEGANOGRAPHY
- 1387. NEW GENERATION ARCHITECTURE FOR CRUISE PARTNER
- 1388. NEW TOOL TO IMPROVE PROJECT ESTIMATION, TRACKING AND MANAGEMENT AT SIEMENS INDUSTRY SOFTWARE
- 1389. NEXT GENERATION DATA WAREHOUSING
- 1390. NEXT GENERATION HANK
- 1391. NEXT GENERATION TEST DEVELOPMENT FOR ORACLE WEBLOGIC SERVER
- 1392. NGN-VOIP TELEPHONY
- 1393. NMP SETUP MANAGER
- 1394. NMS REDUNDANCY ON TCP/IP AND NMS SUPPORT OVER SECURE SOCKET LAYER
- 1395. NMSAN (NETWORK MANAGEMENT SYSTEM FOR AUTONOMIC NETWORKS)
- 1396. NODE B AND RNC SIMULATOR FOR OVERLOAD
- 1397. NODE CONFIGURATION AND TEST AUTOMATION FOR NONSTOP SERVERS
- 1398. NON STANDARD ACCOUNT GLOBAL REQUEST PORTAL
- 1399. NOSQL DATABASES WITH CIVICRM
- 1400. NOTIFICATION AND APPROVALS USING SOA
- 1401. NOVACOMPUTE SIMULATOR FOR OPENSTACK.
- 1402. NOVEL METHOD FOR EFFICIENT UTILIZATION OF STORAGE CAPACITY IN CLUSTER ENVIRONMENT.
- 1403. NOVEL TECHNIQUE FOR ENABLING FUNCTIONAL VALIDATION FOR APPLICATIONS RUNNING IN PRE-OS UEFI ENVIRONMENT VIA AUTOMATION
- 1404. OASIS UIML TOOLKIT FOR ANDROID PLATFORM

- 1405. OBJECT BASED WEB UI AUTOMATION FRAMEWORK FOR TEST EXECUTOR
- 1406. OFFERING BUSINESS SERVICES WITH BMC REMEDY ITSM
- 1407. OFFICE 365 INTEGRATION
- 1408. OFFLINE APPROVAL FOR PR IN SAP R3 SYSTEM
- 1409. OFFLINE QUALITY CENTER
- 1410. ON DEMAND PLATFORM ARCHITECTURE DESIGN AND ANALYSIS FOR CABLE INTERNET PROVIDERS
- 1411. ON MAXIMIZING THE LIFETIME OF WIRELESS SENSOR NETWORKS USING VIRTUAL BACKBONE SCHEDULING
- 1412. ONE – MULTI DATABASE UTILITY
- 1413. ONE STEP MIGRATION FOR CLIENT DATABASE
- 1414. ONE WAY ACTIVE MEASUREMENT PROTOCOL(OWAMP)
- 1415. ONLINE ANALYTICAL REPORTING FOR FINANCIAL INSTITUTIONS
- 1416. ONLINE EXAM MANAGEMENT USING JSP
- 1417. ONLINE FRAUD PREVENTION IN SHOPPING PLATFORM
- 1418. ONLINE SCHEDULING OF DYNAMIC TASK GRAPHS WITH COMMUNICATION AND CONTENTION FOR MULTIPROCESSORS
- 1419. ONLINE SHOPPING MALL
- 1420. ONLINE SHOPPING PORTAL BANKING SOLUTION [CATEGORY: E-BUSINESS]
- 1421. ONLINE SPEECH ASSESSMENT TOOL FOR IMPROVING READING COMPREHENSION SKILLS
- 1422. ONLINE TEST SUBMISSION AND SYSTEM MANAGEMENT
- 1423. OPASS: A USER AUTHENTICATION PROTOCOL RESISTANT TO PASSWORD STEALING AND PASSWORD REUSE ATTACKS
- 1424. OPEN FLOW NETWORKING IN MILITARY NETWORKS
- 1425. OPEN MANAGE SERVER INSTRUMENTATION
- 1426. OPEN SOURCE BUG TRACKING SYSTEM
- 1427. OPEN SOURCE DATA WAREHOUSING AS A SERVICE
- 1428. OPENCL BASED MULTILEVEL DISCRETE WAVELET TRANSFORM (DWT) FOR IMAGE SHARPENING AND DE-BLURRING
- 1429. OPENMAX IL FOR AUDIO AND VIDEO ON SAMSUNG SOC OPENMAX IL FOR AUDIO AND VIDEO ON SAMSUNG SOC OPENMAX IL FOR AUDIO AND VIDEO ON SAMSUNG SOC OPENMAX IL FOR AUDIO AND VIDEO ON SAMSUNG SOC
- 1430. OPTICAL CHARACTER RECOGNITION FOR PRINTED ENGLISH LANGUAGE
- 1431. OPTIMAL ROUTE USING CELLULAR MOVEMENT
- 1432. OPTIMIZATION OF RNC PERFORMANCE USING HARDWARE ACCELERATORS
- 1433. OPTIMIZATION OF TEST CASES USING QUALITY CENTER
- 1434. OPTIMIZED APPROACH TO DATA CENTRIC TESTING FOR A DATA WAREHOUSE
- 1435. OPTIMIZED WEB SERVICE FOR LIVE INVENTORY UPDATE.
- 1436. OPTIMIZING AV SCAN PERFORMANCE OF VIRTUAL MACHINES NETWORK/ ENVIRONMENT.
- 1437. OPTIMIZING DIAMETER SIGNALING NETWORKS
- 1438. OPTIMIZING PROGRAM PERFORMANCE BY ANALYZING CACHE BEHAVIOR
- 1439. OPTIMIZING SCTP FOR DATA CENTRE TRAFFIC OVER IP NETWORKS
- 1440. OPTIMIZING SEQUENTIAL DATA USING HADOOP IN CLOUD COMPUTING
- 1441. OPTIMIZING THE OCR TECHNOLOGY FOR AUTOMATED DATA EXTRACTION.
- 1442. ORDER MANAGEMENT WEB PORTAL BASED ON SIEBEL E-BUSINESS SOLUTION
- 1443. ORDER PLACEMENT AND PAYMENT MECHANISM ON A MULTI-TOUCH TABLE FOR A FINE DINING EXPERIENCE
- 1444. OUT OF BOX SYSTEM TEST READINESS FOR WIRELESS CONTROLLERS AND ACCESS POINTS
- 1445. OWASP WEB SECURITY PROVIDER
- 1446. PACKAGING REPOSITORY VIA\_CLOUD
- 1447. PARALLEL ANALYTICS FRAMEWORK
- 1448. PARSER TOOL FOR DWARF RECORDS IN XCOFF EXECUTABLE FILE
- 1449. PARSING HIERARCHICAL XML DATA TO RELATIONAL DATA O/P IN SAGENT
- 1450. PATIENT SEARCH FOR CARDIOVASCULAR INFORMATION SYSTEM
- 1451. PAYMENT MANAGEMENT SYSTEM FOR TELECOM
- 1452. PAYMENT PROCESSING METHODS AND SECURITY FOR MOBILE E-COMMERCE

- 1453. PE DASHBOARD
- 1454. PEER AUTHORIZATION DATABASE IN HOST-TO-HOST IPSEC
- 1455. PERFORMANCE ANALYSIS & FACILITATION TOOL
- 1456. PERFORMANCE IMPROVEMENT IN SDN NETWORKS
- 1457. PERFORMANCE MANAGEMENT SYSTEM
- 1458. PERFORMANCE OF VAMOS TRAINING SEQUENCE SET
- 1459. PERFORMANCE OPTIMIZATION FOR LOW END SWITCHING PALTFORMS
- 1460. PERFORMANCE OPTIMIZATION IN DATABASE SYSTEMS USING SAN STORAGE AND AIX OPERATING SYSTEM
- 1461. PERFORMANCE TESTING MOBILE DEVICE MANAGER BY SETTING UP A STABLE TEST ENVIRONMENT
- 1462. PERSONAL SECRETARY APP FOR ANDROID
- 1463. PERSONALIZATION OF WORKLOADS IN INFRASTRUCTURE AS A SERVICE MODEL
- 1464. PHONE HOME DISCOVERY AND RECONNECT PROTOCOL
- 1465. PHOTO ORGANIZER
- 1466. PHYSICIAN DASHBOARD ON MOBILE DEVICES
- 1467. PLANT MONITORING SYSTEM
- 1468. PLATFORM STORAGE THROUGHPUT ANALYZER
- 1469. POLICY AND CHARGING CONTROL IN EVOLVED PACKET CORE
- 1470. POLICY BASED BACKUP IN NETAPP PROTECTION MANAGER USING SYMANTEC NETBACKUP APPLICATION.
- 1471. PORTABLE SYSTEM AUTOMATED TEST (PSAT)
- 1472. PORTING LINUX BSP ON CUSTOM WIRELESS ACCESS POINT HARDWARE
- 1473. PORTING MP3SPLT AND MP3WRAP FROM LINUX X86 DESKTOP TO ANDROID ARM PLATFORM
- 1474. POWER LINE COMMUNICATION FOR HARNESS DESIGN DEVELOPMENT IN HOME APPLIANCE
- 1475. PRACTICAL EVALUATION OF REFACTORING TECHNIQUES FOR PARALLELISING ENTERPRISE APPLICATIONS
- 1476. PREDICTION MODEL FOR TRANSIT TIMES
- 1477. PREDICTION OF POPULATION-LEVEL ALLELE FREQUENCIES FOR TYPED AND UNTYPED GENETIC VARIANTS
- 1478. PREPAYMENT ENERGY METERING SOLUTION
- 1479. PRE-PROCESSING AND WEB MINING OF MICROSOFT'S INTERNET INFORMATION SERVICES (IIS) LOGS.
- 1480. PREVENTING XML INJECTION ATTACKS IN WEB SERVICES FOR ENTERPRISE APPLICATIONS
- 1481. PRIVACY PROTECTION IN LOCATION-BASED SERVICES FOR PERVASIVE DEVICES.
- 1482. PRIVATE PUBLISHING IN UPNP NETWORK
- 1483. PRO-ACTIVE ISSUE IDENTIFICATION OF WEB BASED APPLICATION SERVERS USING LOG ANALYSIS TECHNIQUES
- 1484. PROACTIVE UPGRADE OF CLINICAL APPLICATIONS
- 1485. PROCESS AND QUALITY AS A CULTURE" - FOR CHANGING BUSINESS AND ORGANIZATION MODELS
- 1486. PROCESS IMPROVEMENT FOR DISTRIBUTED DEVELOPMENT TEAMS IN SMALL BUSINESS
- 1487. PROCESS INTEGRATION OF IT SERVICE MANAGEMENT, SDLC AND SIX- SIGMA
- 1488. PROCESS SCHEDULER AND REPORTING TOOL FOR ANALYZING PRODUCTION INDUSTRY ACTIVITIES
- 1489. PROCESSING AND STORING VIDEO ON CLOUD FOR CLOUD BASED VIDEO SURVEILLANCE SYSTEMS
- 1490. PRODUCT CATALOGUE
- 1491. PRODUCT DESIGN COLLABORATION WITH CREO VIEW
- 1492. PRODUCT RECOMMENDATIONS FOR ONE VIEW CRM APLICATION
- 1493. PRODUCTIVITY IMPROVEMENT TOOLS
- 1494. PROJECT BASED VIRTUALIZED OPERATING SYSTEM
- 1495. PROJECT DASHBOARDS – STATUS & QUALITY MONITORING TOOL
- 1496. PROJECT EFFORT OPTIMIZATION
- 1497. PROJECT MANAGEMENT SYSTEM
- 1498. PROTECTING WEB APPLICATIONS- TOOLS & TECHNIQUES

- 1499. PROTOCOL ANALYZER & DECODER FOR INTERCEPTION AND MONITORING COMMUNICATION SIGNALS. (COMINT)
- 1500. PROTOCOL ROBUSTNESS TESTER
- 1501. PROTOCOL SIGNATURE RESEARCH AND ANALYSIS ON NETWORK TRAFFIC PATTERN USING DEEP PACKET INSPECTION
- 1502. PROTOTYPE FOR RENDERING 3D CAD DATA MODEL IN WEB BROWSER USING WEBGL
- 1503. PROTOTYPE TO RENDER 3D CAD MODEL DATA ON ANDROID
- 1504. QOS CLASSIFICATION ON MOBILE NETWORKS
- 1505. QUALITY ANALYSIS OF CONTENT DISTRIBUTION IN SEMANTIC OVERLAY NETWORKS
- 1506. QUALITY ASSURANCE INFORMATION SYSTEM
- 1507. QUALITY CHECK AND PROFILING IN DATA WAREHOUSE
- 1508. QUALITY IMPROVEMENT OF AGILE PROJECTS BY USING TEST AUTOMATION
- 1509. QUANTITATIVE FRAMEWORK FOR MANAGING SOFTWARE LIFE CYCLE
- 1510. RADIO POLICY MANAGER (RPM)
- 1511. RAPID DEVELOPMENT OF STORAGE EFFICIENT FILE SYSTEM WITH FUSE
- 1512. REAL TIME BIDDING
- 1513. REAL TIME BLOOD DONOR TRACKING SYSTEM
- 1514. REAL TIME DATA SERVICES
- 1515. REAL TIME DATA WAREHOUSING: CHALLENGES & SOLUTIONS
- 1516. REAL TIME PRICING
- 1517. REAL WORLD PRODUCT INTEGRATION USING OSLC SPECIFICATIONS.
- 1518. REAL-TIME COLLABORATION FOR INVENTORY MANAGEMENT WITHIN SAME INDUSTRY
- 1519. REAL-TIME MONO-VISION PEDESTRIAN DETECTION FOR AUTOMOTIVE SAFETY SYSTEM
- 1520. RE-ARCHITECTURE OF A LEGACY WEB APPLICATION IN TERMS OF FRAMEWORK AND GUI FOR PERFORMANCE AND USABILITY
- 1521. RE-CATEGORIZATION OF SHIKSHA.COM
- 1522. RECOMMENDATION ENGINE FOR A SOCIAL NETWORK
- 1523. RECOMMENDATIONS ENGINE USING HADOOP
- 1524. REDESIGNING EXISTING BASIC FLASH FILE SYSTEM TO A FEATURE ENHANCED & MULTIPLATFORM FILE SYSTEM
- 1525. REDUCING RESIDUAL DEFECTS USING RELIABILITY GROWTH TESTING IN CORE BANKING SOFTWARE
- 1526. REDUNDANCY SUPPORT FOR MEDIA PROCESSING CARD IN HARDWARE MEDIA SERVERS
- 1527. REGRESSION TESTING USING LABVIEW FOR AUTOMATIC TRANSFER SWITCH CONTROLLER FIRMWARE
- 1528. RELEVANCE OF CENTRALIZED SUBSCRIPTION ENGINE FOR VAS SERVICES
- 1529. RELIABLE RECOGNITION OF HANDWRITTEN DIGITS
- 1530. REMEDY RELEASE MANAGEMENT DASHBOARD
- 1531. REMOTE DATA ACQUISITION SYSTEM FOR STEADY STATE TOKAMAK
- 1532. REMOTE DIAGNOSTICS AND FAULT CORRECTIONS USING MOBILE SOFTWARE AGENTS
- 1533. REMOTE DIAGNOSTICS IN WINDOWS AZURE
- 1534. REMOTE MONITORING AND DIAGNOSTICS (USING TELEMATICS IN FARMING)
- 1535. REPLICATING AN ELECTRIC VEHICLE CHARGING STATION USING THE OCPP SPECIFICATION
- 1536. REPLICATING BACKUP SERVER DATABASE AND LOG VOLUMES THEREBY DECREASING THE RESTORATION TIME DURING THE DISASTER RECOVERY USING TSM APPLICATION
- 1537. REPORTING AND ANALYSIS FRAMEWORK FOR ENTERPRISE PERFORMANCE MANAGEMENT TOOL
- 1538. REPORTING AND SCHEDULING OF SALES TREND AND MONITORING SALES CHALLENGES OF RETAIL ORGANIZATION USING DATA WAREHOUSE
- 1539. REQUEST MANAGEMENT TOOL
- 1540. RESEARCH AND DEVELOPMENT OF AUTOMATION TESTING FRAMEWORK
- 1541. RESEARCH IN IMAGE COMPRESSION USING WAVELETS
- 1542. RESEARCH ON EXTERNAL DISPLAY ON TV FROM MOBILE VIA HDMI (HIGH-DEFINITION MULTIMEDIA INTERFACE)
- 1543. RESEARCH ON MOBILE TRAFFIC DATA AND USAGE RECOMMENDATION
- 1544. RESEARCH ON THRIFT SOFTWARE FRAMEWORK
- 1545. RESOURCE CAPACITY PLANNING AND ESTIMATIONS

- 1546. RESOURCE MANAGEMENT TOOL
- 1547. RESTFUL BASED TEST AUTOMATION FRAMEWORK
- 1548. RESTFUL WEB SERVICE IMPLEMENTATION FOR ENTERPRISE APPLICATION
- 1549. RETAIL CONFIGURATION SCREEN (RETL – REQUESTOR AND SERVER)
- 1550. RETAIL ORDER MANAGEMENT SOLUTION USING WEBMETHODS
- 1551. RETIREMENT PLANNING SERVICE RE-ENGINEERING
- 1552. REXX BASED JCL BUILDER APPLICATION FOR FILE PROCESSING AND REPORTING IN MAINFRAME SYSTEMS
- 1553. RIA BASED FRAMEWORK FOR ELEARNING
- 1554. RISK BASED MOBILE APPLICATION TESTING
- 1555. RISK FRAUD COMPLIANCE UNIFIED SUITE USING SERVICE ORIENTED ARCHITECTURE APPROACH
- 1556. ROAD BUMP DETECTION AND EARLY WARNING SYSTEM USING SMARTPHONES AND SHARED DATA ON THE CLOUD
- 1557. ROOM INTERIOR DESIGN VISUALIZATION APPLICATION FOR MOBILE DEVICE
- 1558. ROUTE BASED ITINERARY GENERATOR
- 1559. RSCD AGENT FRAMEWORK FOR SUPPORTING POLICY BASED AGENT
- 1560. RSS NEW CLASSIFIER USING THE CF-IDF SEMANTIC RECOMMENDER
- 1561. RTOS FOR AVIONICS SUBSYSTEM
- 1562. RUHRMED 2013 - BRIDGING E-BUSINESS
- 1563. RULE ENGINE FOR GAMIFICATION
- 1564. RUNNING AUTOMATED TESTS ON CLOUD AND MANAGING THE RESULTS IN A DATA WAREHOUSE.
- 1565. RUNTIME DEFENSE AGAINST CODE INJECTION ATTACKS USING REPLICATED EXECUTION
- 1566. RUNTIME REVERSE ENGINEERING WITH WORKBENCH INTEGRATION
- 1567. RURAL E-SEVA
- 1568. S/MIME BASED EMAIL ENCRYPTION AND DECRYPTION FOR ANTI-SPAM GATEWAY
- 1569. SAASIFICATION OF APPLICATION PERFORMANCE MANAGER
- 1570. SAFETY CRITICAL IMPLEMENTATION OF A MODE SELECTION PANEL FOR AN AUTO-PILOT
- 1571. SAN AND LAN EXTENSION OVER LONG HAUL NETWORKS
- 1572. SANITISATION OF SENSITIVE DATA USING DATA MASKING TECHNIQUE
- 1573. SAP BI IMPLEMENTATION
- 1574. SAP TEST DATA MIGRATION SERVER
- 1575. SATELLITE MODEM WITH DVB-S2 SET-TOP BOX RECEIVER
- 1576. SBS - RISK MITIGATING SYSTEM FOR SECURITIES EXCHANGES
- 1577. SCALABLE CONTENT MANAGEMENT SYSTEM
- 1578. SCHEDULED FILE SYNCHRONIZATION FOR WORKFORCE MANAGEMENT
- 1579. SCHEDULED REPORT BURSTING USING BATCH REPORT SERVICE OF COGNOS SDK
- 1580. SCHEDULING IN HADOOP: ENHANCING THE PERFORMANCE OF MAPREDUCE JOBS
- 1581. SCM FOR MERCURIAL MIGRATION
- 1582. SCRIPTING SOLUTION TO PERFORM AUTOMATIC TASKS ON RADIO NETWORKS
- 1583. SDH SYNC ANALYZER
- 1584. SEARCH DE-DUPLICATION FOR EMC SOURCEONE EDISCOVERY KAZEON
- 1585. SEARCH OPTIMIZATION USING APACHE SOLR/LUCENE
- 1586. SEARCH-IN - EXPLORING INSIDE REPOSITORY
- 1587. SECRET INFORMATION GUARD
- 1588. SECURE HIGH-THROUGHPUT MULTICAST ROUTING IN WIRELESS MESH NETWORKS
- 1589. SECURE MANET FROM WORM HOLE ATTACK
- 1590. SECURE NEAR FIELD COMMUNICATION
- 1591. SECURE PAPER PRINTING
- 1592. SECURE TRANSACTION IN E-COMMERCE SECURE TRANSACTION IN E-COMMERCE APPLICATIONS THROUGH XML
- 1593. SECURE WAY OF BUILDING ANDROID APPLICATIONS
- 1594. SECURE WINDOWS LOGON USING NEAR FIELD COMMUNICATION CARDS FOR USER AUTHENTICATION
- 1595. SECURED INTERFACE PROCESS ON A FRAUD SERVICE CALL OUT
- 1596. SECURING AND UPDATING OFFLINE VIRTUAL MACHINES

- 1597. SECURING WEB PRODUCT USING HYBRID APPLICATION
- 1598. SECURITY ANALYSIS OF HTTP REDIRECT SERVER, IDENTIFICATION OF POSSIBLE ATTACKS AND SOLUTIONS TO PREVENT THEM
- 1599. SECURITY AS A SERVICE IN CLOUD FOR SMARTPHONES
- 1600. SECURITY CONSIDERATIONS IN SDN
- 1601. SECURITY FOR LEGACY PLANT CONTROL NETWORKS
- 1602. SECURITY MODEL IN CLOUD COMPUTING
- 1603. SELF SERVICE PAGE BUILDER
- 1604. SELF SERVICES SOLUTIONS FOR PRIVATE CLOUD USING VCLLOUD DIRECTOR
- 1605. SELF-MANAGEMENT OF WIRELESS NETWORK
- 1606. SELF-SYNCHRONIZING ESB CLUSTER NODES
- 1607. SENSOR BASED GESTURE RECOGNITION IN ANDROID
- 1608. SENTIMENT ANALYSIS OF TWITTER TWEETS AND FACEBOOK COMMENTS
- 1609. SERIAL COMMUNICATION (RESEARCH AND IMPLEMENTATION)
- 1610. SERVER PULSE ANALYZER
- 1611. SERVER SIMULATOR FOR EMBEDDED DEVICE
- 1612. SERVICE CENTRIC FRAMEWORK FOR DIGITAL GOVERNMENT APPLICATION
- 1613. SERVICE ORIENTED DATA PROCESSING FOR IMMIGRATION PURPOSES
- 1614. SES PERFORMANCE TUNING
- 1615. SHIP TO FUNDS
- 1616. SIEBEL ADMINISTRATION DASHBOARD FOR INTELLIGENT MONITORING, AUTOMATIC SERVICE RECOVERY AND TIME OPTIMIZED CODE DEPLOYMENT
- 1617. SILVERSCREEN- MOVIES, MUSIC AND MORE-A WEB CROSS PLATFORM APPROACH TO INFOTAINMENT
- 1618. SIMULATION OF GSMSCF OVER GE INTERFACE IN EAST
- 1619. SITE COLLECTION TOOL - SCT
- 1620. SITEMAPS FOR WEB APPLICATIONS
- 1621. SLICING OF STATE BASED MODELS
- 1622. SLICING TOOL FOR CT/MR IMAGE DATA TO ENABLE ITS USAGE IN SPECIALIZED MEDICAL APPLICATIONS
- 1623. SMART CACHE – A CLIENT SIDE CACHE MANAGER
- 1624. SMART COMPILER
- 1625. SMART COMPLAINT MANAGEMENT AND TRACKING SYSTEM
- 1626. SMART CONNECTIVITY SOLUTION USING BLUETOOTH TECHNOLOGY
- 1627. SMART CONNECTIVITY SOLUTION USING DLNA TECHNOLOGY
- 1628. SMART MESSAGING.
- 1629. SMART PHONE POWER OPTIMIZATION USING GAZE DETECTION
- 1630. SMARTCTRL+F
- 1631. SMARTER ANALYTICS AND PRECISION MARKETING IN IBM WEBSPPHERE COMMERCE USING IBM TEALEAF
- 1632. SMARTPHONE BASED LAND RECORDS INFORMATION SYSTEM
- 1633. SMARTPHONE CONTROLLER FOR SET TOP BOX
- 1634. SMARTSEC MOBILE BANKING
- 1635. SNAP CREATOR PLUG-IN FOR KERNEL BASED VIRTUAL MACHINE
- 1636. SNIFFER ANALYZER
- 1637. SNMP MIB BROWSER FOR ANDROID AND IPHONE MOBILES
- 1638. SOA COMPOSITE APPLICATION DEVELOPMENT FOR EBUSINESS INTEGRATION SCENARIO
- 1639. SOCCET – ESTABLISH RELATIONS
- 1640. SOFTAP IMPLEMENTATION ON RTL8191SU
- 1641. SOFTWARE ARCHITECTURE DESCRIPTION OF EXISTING MULTIFUNCTION RELAY SYSTEM  
SOFTWARE ARCHITECTURE DESCRIPTION OF EXISTING MULTIFUNCTION RELAY SYSTEM  
SOFTWARE ARCHITECTURE DESCRIPTION OF EXISTING MULTIFUNCTION RELAY SYSTEM
- 1642. SOFTWARE ARCHITECTURE FOR FUZZY RULE BASED DECISION SUPPORT SYSTEMS
- 1643. SOFTWARE ARCHITECTURE FOR INFORMATION SECURITY MANAGEMENT SYSTEM AS PER ISO/IEC 27001:2005 STANDARDS
- 1644. SOFTWARE CHANGE CRITICALITY ANALYSIS FOR ON-BOARD SOFTWARE

- 1645. SOFTWARE DESIGN OF ASTT(AUTOMATIC SCENARIO TESTING TOOL) SOFTWARE TOOL FOR AUTOMATING SCENARIO BASED TESTING AND VALIDATION.
- 1646. SOFTWARE METRICS TOOL
- 1647. SOFTWARE OPERATIONS RISK ASSESSMENT
- 1648. SOFTWARE PROCESS IMPROVEMENT & DEVELOPMENT ENVIRONMENT REENGINEERING (SPIDER)
- 1649. SOFTWARE TESTING METHODOLOGIES AND TECHNIQUES - AN ANALYSIS WITH REFERENCE TO BEHAVIOR DRIVEN TESTING (BDT)IN AGILE
- 1650. SOFTWARE TESTING OF WEB APPLICATION USING AGILE METHODOLOGY WITH LEAN
- 1651. SOFTWARE THERMAL MANAGEMENT AND ENERGY-THERMAL ANALYZER FOR ANDROID PLATFORM
- 1652. SOFTWARE USABILITY EVALUATION OF SOME ACADEMIC WEBSITES
- 1653. SOLDIER COLLABORATION TOOL
- 1654. SOLID STATE DRIVE (SSD) TOOLKIT FOR MACINTOSH OS
- 1655. SOLVING DATA LOADING CHALLENGES IN DYNAMIC DATABASES USING EAV SCHEMA
- 1656. SOURCE CODE SECURITY ANALYZER
- 1657. SPARQL QUERY EDITOR AND BUILDER FOR JAZZ DATASTORE
- 1658. SPECT IMAGE RECONSTRUCTION USING GPU
- 1659. SQ CENTER – WEB BASED TEST MANAGEMENT TOOL
- 1660. SQL PROCESSING WITH ISPF PANEL BASED INTERFACE FOR LEGACY SYTEMS
- 1661. SQL REPORT SCHEDULER
- 1662. SSD WINDOWS TOOLKIT APPLICATION TO MANAGE SSD
- 1663. SSL CONNECTION MANAGEMENT IN SECURE WEB CLUSTER NETWORKS
- 1664. SSL DECRYPTION LIBRARY
- 1665. SSM SCALABILITY TESTING USING DATAGEN TOOL
- 1666. STANDALONE EMBEDDED TEST SYSTEM FOR DC SERVO MOTOR WITH OPTIONAL PC INTERFACE
- 1667. STATIC LIBRARY LINKER FOR SHADER COMPILER
- 1668. STATISTICAL LEARNING TO COMPENSATE CHANGING PROPERTIES OF HARDWARE.
- 1669. STATISTICAL PREDICTION ENGINE FOR FINANCIAL MARKETS : FUTURES AND OPTIONS
- 1670. STATUS REPORTING PORTAL
- 1671. STATUS REPORTING TOOL FOR EFFECTIVE SOFTWARE MANAGEMENT
- 1672. STEGANALYSIS TO PREVENT DATA LOSS
- 1673. STOCK MARKET PREDICTION USING ARTIFICIAL NEURAL NETWORKS
- 1674. STORAGE AREA NETWORK IMPLEMENTATION WITH BEST PRACTICE.
- 1675. STORAGE NETWORKS: SIMULATION AND PERFORMANCE ANALYSIS
- 1676. STRONG AUTHENTICATION MECHANISMS – REVIEW AND PROPOSED ENHANCEMENTS
- 1677. STRONGLY TYPED WEB SERVICE IMPLEMENTATION IN CHORDIANT DECISION MANAGEMENT
- 1678. STRUCTURED DATA EXTRACTION AND BUILDING CONTEXT-AWARE QUERY CLASSIFIER FOR SHOPPING VERTICAL
- 1679. STUDENT EPORTFOLIO
- 1680. STUDIO – SOFTCO TOOLS INTEGRATED PORTAL AND USER MANAGEMENT
- 1681. STUDY & IMPLEMENTATION OF RFC 3611 FOR DVFD
- 1682. STUDY AND DESIGN OF MANAGEABILITY ENHANCEMENTS BASED ON QOS ATTRIBUTES IN A STORAGE ARRAY SUBSYSTEM
- 1683. STUDY AND IMPLEMENTATION OF COST BREAK DOWN STRUCTURE FOR PROJECT PLANNING IN ORACLE PROJECTS
- 1684. STUDY AND IMPLEMENTATION OF FINANCIAL ORCHESTRATION FOR SUPPLY CHAIN MANAGEMENT SYSTEMS.
- 1685. STUDY AND IMPROVING HUMANIZED COMPUTING TECHNOLOGIES.
- 1686. STUDY OF ELECTROPHYSIOLOGY RECORDING SYSTEMS AND SPECIFICATION TESTING OF SUCH SYSTEMS IN AGILE DEVELOPMENT
- 1687. STUDY OF IMPLEMENTATION OF SELF-ASSESSMENT SYSTEM FOR PROPERTY TAX IN PATNA MUNICIPAL CORPORATION
- 1688. STUDY OF THE INFORMATION SECURITY AND DATA PRIVACY CONCERNS IN CLOUD COMPUTING
- 1689. STUDY OF VARIOUS TECHNOLOGIES USED FOR RENDERING 3D DATA IN WEB-BROWSERS

1690. SUPER SEARCH  
 1691. SURFACE SENSE  
 1692. SURROGATING CREDIT/DEBIT CARD NUMBERS  
 1693. SV-UC APPS(SOLUTION VERIFICATION OF UNIFIED COMMUNICATION APPLICATIONS)  
 1694. SWAP DATA REPOSITORY  
 1695. SYMANTEC.COM NEXT GEN INFRASTRUCTURE AND AUTOMATED DEPLOYMENT PROCESS  
 1696. SYNCHRONOUS MULTI-PLAYER FIGHT SYSTEM WITH REAL-TIME MESSAGING  
 1697. SYSTEM DESIGN FOR HIGH CONCURRENCY ONLINE EXAM PORTALS IN IAF  
 1698. SYSTEM FOR AUTOMATED MONITORING, TRACKING & REPORTING OF WORK ITEMS  
 1699. SYSTEM LEVEL RAS (RELIABILITY, AVAILABILITY & SERVICEABILITY) VALIDATION ENVIRONMENT USING WHEA (WINDOWS HARDWARE ERROR ARCHITECTURE) FOUNDATION  
 1700. SYSTEM MONITORING APPLICATION  
 1701. SYSTEM OF SYSTEM OF WEBSERVICES  
 1702. SYSTEMATIC ACCELERATED STRESS TEST METHODOLOGIES & TEST DESIGN  
 1703. SYSTEM-ON-CHIP LOW POWER ISSUES  
 1704. TAILORED PAYMENT AUTHORIZATION PROCESS FOR CIVICRM EVENT REGISTRATION  
 1705. TAKEOFF AND LANDING AUTOMATED COMPUTATION SYSTEM FOR PILOTS.  
 1706. TASK MANAGEMENT SYSTEM  
 1707. TCP AND RLC PERFORMANCE ENHANCEMENT FOR UMTS RADIO ACCESS NETWORK  
 1708. TEAM MANAGEMENT PORTAL  
 1709. TEAM PERFORMANCE MONITORING PORTAL  
 1710. TECHNICIAN PORTAL DEVELOPMENT FOR AN MNC IN ITSM FIELD  
 1711. TECHNICIAN SPACE IN HELPDESK SOFTWARE  
 1712. TEST AUTOMATION FOR EVOLVING SOFTWARE  
 1713. TEST AUTOMATION FRAMEWORK  
 1714. TEST AUTOMATION FRAMEWORK (SELENIUM & PYTHON)  
 1715. TEST AUTOMATION FRAMEWORK FOR VMWARE HYPERVISOR  
 1716. TEST AUTOMATION SCRIPT DESIGNER INTERFACE: A TOOL TO INCREASE THE AGILITY OF TEST SCRIPTING  
 1717. TEST AUTOMATION USING SELENIUM  
 1718. TEST CASE IDENTIFICATION TOOL  
 1719. TEST COVERAGE ANALYZER FOR C/C++  
 1720. TEST MANAGEMENT PORTAL FOR AGILE METHODOLOGY  
 1721. TEXT MINING IN STUDENT FEEDBACK SYSTEM  
 1722. TEXT TO SPEECH CONVERSION SOFTWARE  
 1723. THE FUTURE OF THE INTERACTIVE WEB WITH HTML5, CSS3 & DART  
 1724. THE INFORMATION BUS FOR CASH MANAGEMENT SYSTEM  
 1725. THE PERFECT PRODUCT APP - ANDROID APPLICATION WITH AUGMENTED REALITY TO HELP YOU CHOOSE THE PERFECT PRODUCT.  
 1726. THE SAVIOR  
 1727. THE SCSI PROTOCOL GRAPHICAL TOOL  
 1728. THERMOSTAT BASED ON AN ANDROID PHONE  
 1729. THIRD PARTY FUND TRANSFER AND CARD TO CARD TRANSFER THROUGH ATM  
 1730. THIRD PARTY INTEGRATOR WITH SQL SCANNER  
 1731. THROTTLING MECHANISM FOR MANAGEMENT ETHERNET PORT  
 1732. TIME-SERIES METADATA DISTRIBUTION FRAMEWORK  
 1733. TMS PACKET ANALYZER PLUGIN  
 1734. TO DESIGN AND IMPLEMENTATION OF A NOVEL ROUTING ALGORITHM FOR INDIAN NAVAL DATA LINK OVER V/UHF RADIOS.  
 1735. TO USE THE RELATIVELY NEW TECHNOLOGY OF CLOUD COMPUTING FOR TRAFFIC CONTROL  
 1736. TOOL DEVELOPMENT FOR NEW FEATURES OF POWERVM VIRTUALIZATION  
 1737. TOOL FOR ACL L4OP OPTIMIZATION.  
 1738. TOOL FOR MEDICAL IMAGING 2D AND 3D VISUALIZATION.  
 1739. TRACK AND COMMUNICATE JOB ABORTS  
 1740. TRACK MY FAMILY AND FRIENDS  
 1741. TRACKING ANTENNA CONTROL SYSTEM (TRACS)



- 1742. TRADE MONITORING TOOL
- 1743. TRAFFIC ENGINEERING IN METRO ETHERNET NETWORK USING SNMP
- 1744. TRAFFIC TREND ANALYSIS USING TRAVERSAL DATA FROM MOBILE DEVICES
- 1745. TRANSACTION BANKING APPLICATION
- 1746. TRANSACTION DATA PORTING FOR HEALTHCARE INFORMATION SYSTEMS
- 1747. TRANSCODING OF MEDIA CONTENT AND DELIVERING FORMATS VIA CONTENT DELIVERY NETWORK
- 1748. TRANSFORMATION OF INTERNATIONAL BUSINESS DATA INTO ACTIONABLE BUSINESS INTELLIGENCE
- 1749. TRAVEL AGENT PORTAL FOR FLIGHT RESERVATION
- 1750. TRENDING AND ANOMALY DETECTION IN MOBILE DATA
- 1751. TWITTER SCANNER
- 1752. UBIQUITOUS ONLINE STORE
- 1753. UI AUTOMATION FRAME WORK
- 1754. UMTS NODEB SIMULATOR
- 1755. UNIFIED CLIENT PLATFORM FOR HETEROGENEOUS APPLICATIONS
- 1756. UNIFIED DIAGNOSTIC SERVICES PROTOCOL DEVELOPMENT
- 1757. UNIT TESTING USING JUNIT FOR THE WEBSITE HIX(HEALTH INSURANCE EXCHANGE
- 1758. UNIVERSAL BIG DATA ANALYZER FOR COMMERCIAL GAIN IN RETAIL SECTOR
- 1759. UNIVERSAL PATIENTS DATABASE FOR MEDICAL DEVICES
- 1760. UNOBTUSIVE TEST RECORD AND REPLAY FRAMEWORK FOR WEB APPLICATIONS
- 1761. UNSTRUCTURED SUPPLEMENTARY SERVICE DATA (USSD) IMPLEMENTATION WITH SIMULATOR ENGINE
- 1762. UPS BATTERY MONITORING MODULE
- 1763. USABILITY IMPROVEMENTS FOR SHAREPOINT ENTERPRISE SOLUTION
- 1764. USE OF ELASTICSEARCH FOR REAL-TIME BIG DATA SEARCH AND ANALYTICS.
- 1765. USE OF JQUERY/DIRTYFIELDS, DYNAMIC WEB PROJECT WITHOUT WEB.XML AND CUSTOMIZED REPORTING AND PRESENTATION SOLUTIONS
- 1766. USE OF WI-FI DIRECT FOR OFFERING FILE TRANSFER SERVICES
- 1767. USER INTERACTIVE QLIKVIEW DASHBOARDS
- 1768. USER INTERFACE APPLICATION
- 1769. USING DB2 TABLES AND SQLS IN PREVENTING DOUBLE BILLING
- 1770. USING SOFTWARE ALGORITHM TO ELIMINATE THE NOISE IMPACT ON THE EGR (EXHAUST GAS RECIRCULATION) VALVE'S CLOSED LOOP FEEDBACK CONTROLLER SYSTEM DUE TO VALVE'S OSCILLATIONS
- 1771. VARIOUS NETWORK SECURITY ATTACKS & HANDLING MECHANISM
- 1772. VAT AUDIT FEATURE FOR EUROPEAN COUNTRIES
- 1773. VECTOR SCALE MODEL IMPLEMENTATION FOR SEARCHING IN DIGITAL LIBRARY
- 1774. VEHICLE COMMUNICATION NETWORK
- 1775. VEHICLE SPEED MONITOR USING GPS
- 1776. VIRIPRO - A PROACTIVE APPROACH TO ANALYZE LIFE OF FLASH MEMORY
- 1777. VIRTUAL NETWORK CLASS ROOM [VNCR]
- 1778. VIRTUAL SIMULATION OF AUTOMOTIVE POWERTRAIN SYSTEM USING MODEL BASED DEVELOPMENT
- 1779. VIRTUALIZING BROADBAND SERVICES (BNG) ON NETWORK DEVICES.
- 1780. VISION BASED OBJECT DETECTION AND POSITION ESTIMATION
- 1781. VISUAL CRYPTOGRAPHY SHARING A SECRET GRAY IMAGE IN MULTIPLE IMAGES
- 1782. VM SPRAWL : CHALLENGES AND RESOLUTIONS"
- 1783. VOICE OVER LTE – SINGLE RADIO VOICE CALL CONTINUITY
- 1784. VOTE FROM HOME A WEB BASED VOTING SYSTEM FOR INDIAN ELECTIONS
- 1785. VULNERABILITY IN WEB APPLICATION
- 1786. WAP<->HTTP REVERSE CONVERSION GATEWAY
- 1787. WATERMARKING RELATIONAL DATABASE FOR OWNERSHIP PROTECTION
- 1788. WEB APPLICATION – CREATE WEB INTERFACE TO TAKE ONLINE BACKUP OF SITES.
- 1789. WEB APPLICATION FOR SOFTWARE RELEASE CRITERIA MANAGEMENT
- 1790. WEB BASED DEFECT TRACKER AND REPORT SYSTEM FOR DESIGN IP
- 1791. WEB BASED EQUITY ANALYSIS

- 1792. WEB BASED POWER QUALITY MONITORING SYSTEM [A NEXT GENERATION APPROACH OF POWER QUALITY MONITORING]
- 1793. WEB BASED SERVER DEPLOYMENT MANAGEMENT AND MONITORING
- 1794. WEB BUSINESS RULE ENGINE FOR VIRTUALWORKS ENTERPRISE APPLICATION
- 1795. WEB MODERNIZATION - A FRAMEWORK DESIGN FOR CROSS BROWSER TESTING
- 1796. WEB OS – ‘MOVING OS TO THE WEB’
- 1797. WEB PORTAL FOR INDIA CMS - LHC
- 1798. WEB SERVICE BASED SPML SERVER
- 1799. WEB-APP TO DEVELOP, VIEW AND MANAGE CENTRALIZED TEST RESULT COLLECTION FOR ENTERPRISE ANALYSIS
- 1800. WEBCAM SURVEILLANCE SYSTEM FOR MNS SITE OFFICES
- 1801. WEBMACHINE IMPLEMENTATION IN NODEJS FOR RESTFUL HTTP APPLICATIONS
- 1802. WEBMETHODS ADAPTER TRANSACTIONS RETRIEVAL
- 1803. WI-FI USER CONSOLE
- 1804. WINCC TAG CALCULATOR
- 1805. WINDOWS FILESYSTEM MINI FILTER ENCRYPTION DRIVER TESTING
- 1806. WIRELESS BLACK BOX USING MEMS ACCELEROMETER AND GPS TRACKING FOR ACCIDENTAL MONITORING OF VEHICLES
- 1807. WIRELESS MESSAGING SECURITY
- 1808. WIRELESS SENSOR COMMUNICATION IN OFFHIGHWAY VEHICLES (SENSOR TALK)
- 1809. WIRELESS TOUCH SCREEN BASED DATA ACQUISITION SYSTEM FOR MONITORING AND CONTROLLING
- 1810. WLAN AUTOMATION TEST BENCH
- 1811. WORKERS COMPENSATION INSURANCE SOLUTION
- 1812. XDRGEN SIMULATOR FOR MOBILE BROADBAND
- 1813. XML BASED AUTOMATION TOOL FOR STERLING TESTING
- 1814. XML TRANSPORT INTERFACE (XTI) FOR STREAMING SERVER DATABASE IN DTH SYSTEM
- 1815. XSMART MY BOOK CRM APPAREL APPLICATION. AN INTRANET WEB APP.
- 1816. XV-DATA – USER FRIENDLY TOOL TO SUMMARIZE AND VISUALIZE DATA SET
- 1817. ZERO STANDBY POWER REMOTE CONTROL SYSTEM USING PIC
- 1818. ZIGBEE (XBEE) BASED ROBOTIC VEHICLE CONTROL

**M.Phil. (Hospital and Health System Management)**

- 1819. A QUANTITATIVE STUDY ON BARRIERS ASSOCIATED WITH ACCESS TO EMERGENCY OBSTETRIC CARE IN CUTTACK DISTRICT OF ODISHA
- 1820. A STUDY OF ENVIRONMENT CONSERVATION AT A TERTIARY CARE HOSPITAL, DISTT. DEHRADUN
- 1821. A STUDY ON SERVICE QUALITY AND PERFORMANCE INDICATORS IN HEALTHCARE ORGANIZATIONS
- 1822. A STUDY ON THE IP-PATIENT SATISFACTION AT BETHANY MEDICAL CENTRE, ANAIKATTY,COIMBATORE.
- 1823. AWARENESS OF LAWS AND LEGAL REQUIREMENTS OF HOSPITAL ADMINISTRATION AMONG HOSPITAL MANAGERS
- 1824. CORRECTABLE SERVICE DELIVERY ISSUES AS IDENTIFIED BY PATIENT SATISFACTION SURVEY IN A SMALL SIZED (20 BEDDED) MATERNITY HOSPITAL
- 1825. CURRENT SCENARIO OF HEALTH SYSTEM MANAGEMENT IN INDIA: A SOCIOLOGICAL CRITIQUE
- 1826. EMPLOYEE SATISFACTION SURVEY IN A DENTAL HOSPITAL
- 1827. ENHANCING QUALITY OF CARE IN HOSPITALS
- 1828. EVALUATION STUDY OF A 63 BEDDED K.P. SANGHVI HOSPITAL, SAGRAMPURA, SURAT IN CONTEXT WITH INDIAN PUBLIC HEALTH SERVICES CRITERIA FOR HOSPITALS
- 1829. HAZARD IDENTIFICATION AND RISK ANALYSIS OF PATIENTS UNDERGOING SURGICAL TREATMENT
- 1830. HUMAN RESOURCE PLANNING
- 1831. IDENTIFICATION & CRITICAL ANALYSIS OF PATIENT’S PROBLEMS IN OUTPATIENT & INPATIENT DEPT. AND TO ASSESS THEIR LEVEL OF SATISFACTION” AT SHRI SAIBABA HOSPITAL, SHIRDI (M.S.)

- 1832. IMPACT OF QUALITY MANAGEMENT SYSTEMS IN A SUPER SPECIALITY HOSPITAL ON PATIENT SATISFACTION
- 1833. IS INTERPERSONAL CONFLICTS AFFECTING THE WORKING PERFORMANCE OF HEALTH CARE PROVIDERS A MYTH OR A REALITY
- 1834. ISSUES IN THE PROCUREMENT AND SUPPLY OF MEDICAL STORES FOR ORDNANCE FACTORY HOSPITALS UNDER ORDNANCE FACTORY BOARD, MINISTRY OF DEFENCE
- 1835. MANAGEMENT OF INVENTORY CONTROL AND MEDICAL STORES ITEMS IN A SERVICE HOSPITAL WITH SPECIAL REFERENCE TO LIFE SAVING DRUGS
- 1836. NEED FOR CORPORATE HEALTH CHECK-UP IN INDIAN INDUSTRIES
- 1837. SERVICE QUALITY IN HEALTH CARE: A PERSPECTIVE STUDY OF POSTOPERATIVE PATIENTS OF BOMBAY HOSPITAL, MUMBAI

### STATEMENT OF DEGREES AWARDED

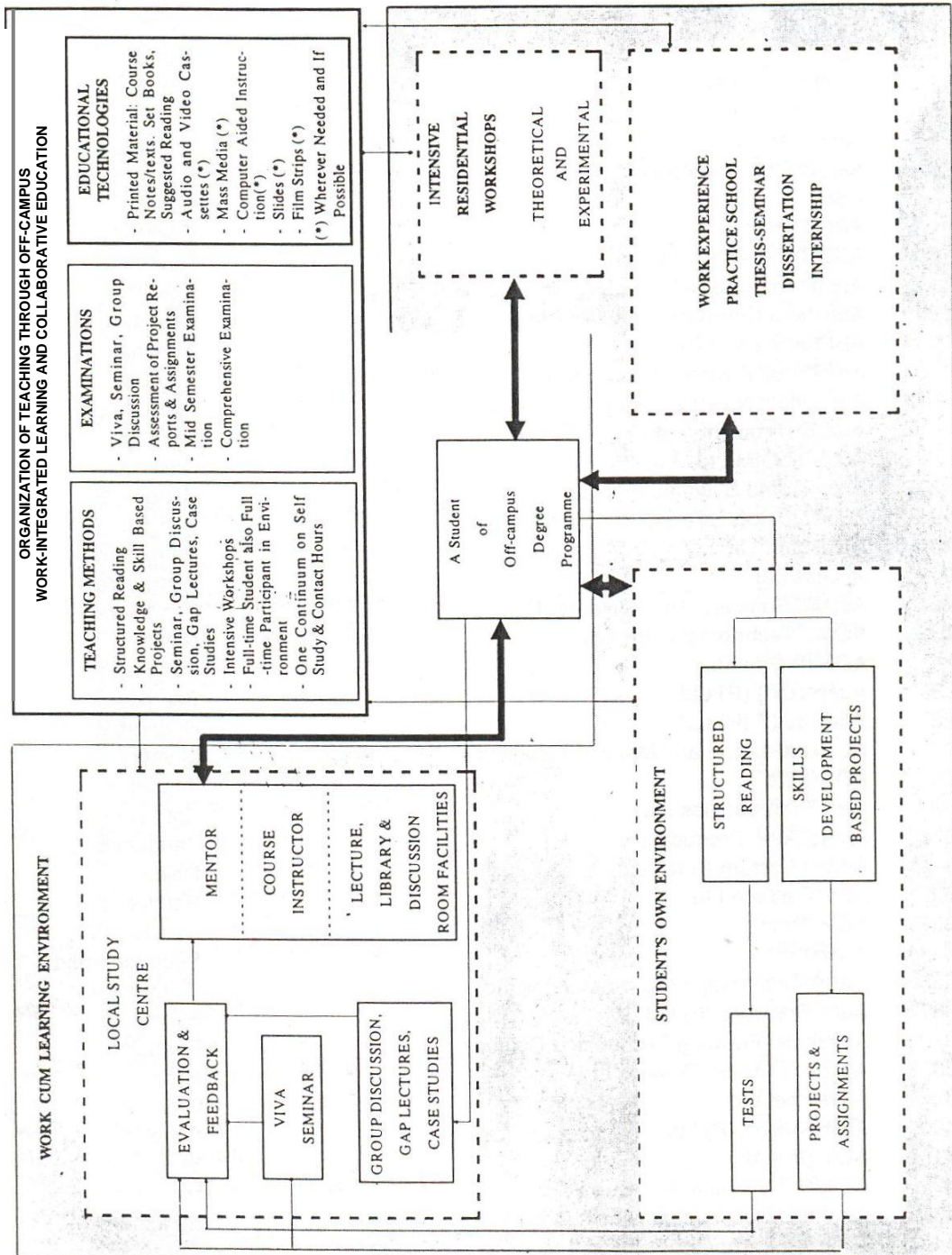
Degrees	No. of degrees	
	72 <sup>nd</sup> Award (20.03.2013)	73 <sup>rd</sup> Award (19.07.2013)
<i>A. Integrated First Degrees</i>		
<i>B.S.</i>		
Engineering Design	2(00)	-
Engineering Technology	215(08)	209(10)
Information Systems	56(14)	12(01)
Manufacturing Engineering	2(00)	37(00)
Marine Engineering	327(03)	26(00)
Nautical Technology	47(00)	30(00)
Optometry	35(26)	30(26)
Physician Assistant	-	13(11)
Process Engineering	97(00)	1(00)
<i>M.Sc.(Tech.)</i>		
Pharmaceutical Chemistry	35(19)	-
<i>Sub Total</i>	816(70)	358(48)
<i>C. Higher Degrees</i>		
<i>M.S.</i>		
Consultancy Management	4(00)	61(16)
Design Engineering	2(00)	31(01)
Engineering Management	57(00)	-
Manufacturing Management	141(05)	199(08)
Medical Laboratory Technology	-	4(03)
Microelectronics	55(06)	-
Pharmaceutical Operations & Management	5(00)	28(02)
Pharmaceutics	36(07)	-
Project Engineering & Management	15(02)	2(00)
Quality Management	12(04)	114(15)
Science Communication	-	10(02)
Software Engineering	1296(657)	188(60)
Software Systems	535(138)	691(180)
Systems Engineering	15(03)	-
Telecommunications & Software Engineering	12(01)	174(67)
<i>M.Phil.</i>		
Hospital and Health Systems Management	6(02)	36(13)
Optometry	-	7(07)
<i>Sub Total</i>	2191(825)	1545(374)
<b>Total</b>	<b>3007(895)</b>	<b>1903(422)</b>

**Note:** The numbers in brackets indicate number of female students.

### SUMMARY

<b>Award</b>	<b>72<sup>nd</sup></b>	<b>73<sup>rd</sup></b>
Integrated First Degrees	816(070)	358(048)
Higher Degrees	2191(825)	1545(374)
Total	<b>3007(895)</b>	<b>1903(422)</b>

**Note:** *The numbers in brackets indicate number of female students.*



A Schematic depicting Person-centred Approach to a Student's Programme of Study in the Off-campus, Education System under Work Integrated Learning Program viewed from the Student's stand-point