

Semester-I notes 2011-12

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BITS Pilani



editorial

The First Semester 2011-12 was like a six-month long celebration that will be cherished forever by the BITS fraternity because of the memorable events it witnessed. The campus was honoured by the visit of Dr Kumar Mangalam Birla, Chancellor on 13 November 2011. It was his maiden visit to the campus after taking over as the Chancellor of the institute. On this occasion, Dr Birla announced the BITS Pilani campus modernization plan *Parivartan* which includes the construction of a state of the art new academic building besides restoration and modernization of

→ Dr. Kumar Mangalam Birla announcing project “parivartan”



all the existing buildings and infrastructure incurring expenditure to the tune of about Rs 400 crores. Another major highlight of the semester was the Convocation held at Pilani campus on 28 August 2011. The convocation ceremony, being held in the Institute after a long hiatus of four decades exhibited spontaneous exuberance, warmth and gaiety. Distinguished nuclear scientist, Dr Anil Kakodkar, DAE Homi Bhabha Chair Professor and Former Chairperson, Atomic Energy Commission, was the Chief Guest on the occasion. Over 2,100 students received their graduate or post graduate degree in person or in absentia on this grand occasion.

The semester started with a euphoric and warm welcome to the freshers which included 22 board toppers of class 12 from across the different boards of the country, thus highlighting the institute's long standing commitment to qualitative education. The institute had its moments of further glory when Prof. R N Saha, Senior Professor of Pharmacy and Deputy Director, Pilani campus was felicitated as *Chair Professor* in recognition of his significant contributions to teaching and research work. Prof Arya Kumar was also conferred with *Goldman Sach 10000 Women Awards Certification Honours* for participating in

the mentor development program in the year 2011 organised by London Business School and National Entrepreneurship Network. That research at BITS has gained robust momentum, got evidenced from the fact that in a duration of six months our faculty members went on to bag 12 projects worth 2.04 crore INR. Among the most outstanding achievers, Prof. Rajiv Gupta, Civil Engineering Department secured a prestigious DST project on *Aakash Ganga – A Social Enterprise Model for RWH and Agriculture of Low Water Demanding Plant* worth 61.96 lacs INR and Dr. Prabhat Nath Jha, Biological Sciences Department, on *Molecular Characterization of ACC Deaminase Activity of Associative Bacteria Isolated from Plants of Desert of Rajasthan* from Department of Biotechnology, New Delhi, India for worth 40.90 lacs INR.

As always, this semester also our students kept adding feathers to the illustrious cap of our institute by winning prizes in various competitions. Dishank Upadhyay (2008A8TS270P) was appointed by the DAAD (German Academic Exchange Service) as the *Young Ambassador to Germany* for the academic year 2011-2012. Aditya Shankar Raghuvanshi and Aaksh Mohan Singhal (2007A3TS168P) participated in the finals of Intel India Embedded Challenge and won the First Prize in Smart Solution Category, a sum of 50,000 INR. Rohit Pathak (2011A7PS004P) and Aqsa Inayat (2011A7PS017P) received the prestigious *Aditya Vikram Birla Scholarship 2011*. Besides, 3 students won *OP Jindal Engineering & Management Scholarship, 2011* and 23 students received the prestigious *Sir Ratan Tata Trust Scholarship, 2011*.

Not only this, some of the faculty members and students of the Institute also visited several universities and institutes in India and abroad to

→ Dr. K M Birla visiting Labs.



broaden their horizon of knowledge and share their experiences beyond boundaries. Moreover,

during this semester a good number of distinguished speakers and experts visited our Institute and delivered talks and lectures to share their domain expertise.

chancellor announces project “parivartan”

Dr Kumar Mangalam Birla, the Chancellor during his maiden visit to Pilani on 13 November 2011, announced the BITS Pilani campus modernization plan named ‘Parivartan’ which includes the construction of a state-of-the-art new academic

→ Birla family entering auditorium



building besides restoration and modernization of all existing buildings and infrastructure at a cost of about Rs 400 crores. The modernized campus will also have a new expanded road network, a new amphitheatre, a new students’ hostel building of 150 rooms, and a new faculty residential area with emphasis on making the campus cycle and pedestrian friendly. He made this announcement in a gala function held at BITS Pilani auditorium on 13 November 2011 organized in honor of senior members of Board of Governors and Birla family members. Leading architects, M/s Hafeez

→ Dr. (Smt.) Sarala Birla addressing the audience



Contractor and M/s Somaya and Kalappa of Mumbai who have been assigned the architectural

design work, gave a presentation on the master plans for the proposed buildings at the function.

→ Birla family in the auditorium



On this scintillating occasion, founding Governing Body Member and doyen of the Birla family, Shri B K Birla and Dr. (Smt.) Sarala Birla unveiled the foundation stones for the new buildings. The Chancellor in his address reiterated the “Vision 2020” which the Leadership of BITS is committed to. He added that BITS will be among the top 3 technical universities in India by 2015 and will be among the top 25 technical universities in Asia by 2020.

Pro Chancellor Smt. Shobhana Bhartia in her address said that BITS occupies a pre-eminent position in science and technology education and research.

→ Smt. Shobhana Bhartia addressing the gathering



Addressing the gathering, Dr. (Smt.) Sarala Birla and Governing Body Member, Smt. Manjushree Khaitan spoke about the vision of the Founder Chairman Shri G D Birla and his untiring efforts to create BITS as an institution of excellence. The occasion was further embellished by the august presence of Shri B K Birla and Dr. (Smt.) Sarla Birla who laid the foundation stone of the new Academic Building and a Students’ Hostel.

→ Prof. R N Saha receiving Chair Professorship



Three Professors of our Institute were also felicitated on this occasion in recognition of their significant contributions to teaching and research work and they were designated as Chair Professors: Prof. R N Saha (Senior Professor of Pharmacy and Deputy Director, Piloni Campus), Prof. Suman Kapur (Professor of Biological Science and Dean, Hyderabad Campus) and Prof. D Sriram, (Associate Professor of Pharmacy, Hyderabad Campus).

convocation held with gaiety and fanfare after a gap of four decades

Convocation 2011 was held at Piloni campus on 28 August 2011 with great verve and warmth after a gap of 4 decades. Distinguished nuclear scientist, Dr. Anil Kakodkar, DAE Homi Bhabha Chair Professor and Former Chairperson, Atomic Energy Commission, was the Chief Guest on the occasion.

This was a combined convocation for Piloni and Hyderabad campuses and 605 candidates received their degrees. Also on this occasion, four

→ Prof. Kakodkar addressing the gathering



illustrious alumni of BITS Piloni – Mr. Prithviraj Chavan, Chief Minister of Maharashtra, Mr. Baba Neelkanth Kalyani, CEO of Bharat Forge,

Professor Goverdhan Mehta, National Research Professor in Chemistry and Prof. D Balasubramanian, Director of Research, L V Prasad Eye Institute, Hyderabad were bestowed upon with the Distinguished Alumnus Awards. Out of these, Prof. Balasubramanian and Prof. Goverdhan Mehta received the awards in person.

→ Prof. Jain presenting a memento to Prof. Kakodkar



Dr. (Smt.) Sarala Birla and industrialist Shri B K Birla, founding members of BITS along with other dignitaries and parents graced this great occasion. In the beginning, Dr. (Smt.) Sarala Birla in her brief speech, congratulated the graduating students and conveyed her best wishes.

In his speech, the Chief Guest Dr. Kakodkar emphasized the role of engineering and technology in sustaining and enhancing the relative competitive edge of our country. Stressing upon the quality of research,

→ Students after receiving their degrees



Dr. Kakodkar said that our research should become comparable to the best in the world. Emphasizing university – industry linkage, he said that we should have the presence of research parks in our campuses and national research laboratories wherein our students and faculty may get the opportunity to participate in industry oriented research.

Chancellor of the University, Dr. Kumar Mangalam Birla, in his videographed address, said that in the

next decade BITS will focus on research and innovation. He also recalled that two years ago the Institute launched a major project, "Vision 2020, Mission 2012" with the aim of identifying and implementing measures that would establish BITS Pilani as one of India's top three research led universities by 2015 and to be counted among the leading 25 technical universities in Asia by 2020.

Vice Chancellor Prof. B N Jain in his address notified that during the academic year 2010-11, over 2,100 students have graduated from BITS and about 20% of these students graduated with two degrees under the Dual Degree Program, an option only BITS provides to its students. Besides, 31 students completed their Ph.D. this year. Vice Chancellor, in his brief report, highlighted the key activities of the four campuses of BITS Pilani, while bringing out their achievements, future plans, and the challenges ahead.

→ The closing of Convocation Ceremony



Director of Pilani campus, Prof. G Raghurama and Director of Hyderabad campus, Prof. V S Rao, in their reports, highlighted the achievements of their respective campuses in terms of infrastructure development, academic affairs, faculty research areas, student activities and achievements.

The Chief Guest Dr. Kakodkar presented medals of merit to five students: Mr. Raghavendra Pradyumna and Mr. Tripathy Shakti Prasad Srikanth (Gold Medals), Mr. Anupiyoti Deka and Miss Surbhi Garg (Silver Medals) and Mr. Heemanshu Suri (Bronze medal). Vice Chancellor Prof. B N Jain presented degree certificates to all graduating students of all programs. In the end, Gold medalist, Mr Raghavendra Pradyumna administered the Oath to all graduating students while Prof. R N Saha, Deputy Director, BITS, Pilani proposed the vote of thanks.

vision 2020: mission 2012

As a part of Vision 2020, three years back the institute commenced its Mission 2012 towards which considerable progress has continued even during this semester. The Mission 2012 project is coming to a closure and Mission 2015 is to be announced by July 2012. The Chancellor, Dr. K M Birla along with the Steering Committee and Task Force leaders reviewed the achievements of Mission 2012 in Hyderabad on 26 - 27 December 2011. He noted and appreciated the work done and progress made under Mission 2012. The new curriculum has been implemented for the students admitted from August 2011 and hence significant changes have been brought in the pedagogy and course contents. The course structure for second year onwards is in the process of being finalized. A round table discussion was organized to discuss the directions BITS should take for the development of Humanities and Liberal Arts. The round table discussion is instrumental in designing a new interdisciplinary course on 'Humanities and Design' to be offered in Pilani campus from January 2012. New programs with Post-B.Sc. input for a 4-year Master's program in industry-relevant areas are also under discussion. Before the end of January 2012, Senate approval will be taken for two new programmes to be commenced from August 2012. Academic counseling cells have been formed in each campus and Fine-Grained Grading scheme and a New Student-Feedback system have also been introduced.

The WILP programs are being reviewed in terms of content and pedagogy for further growth and its contribution to the overall growth of BITS. Several steps have been taken to support research at all levels. New initiatives such as research initiation grant to faculty, enhanced stipend for Ph.D. students, seed grants, etc. have been implemented. The efforts to recruit new faculty to all campuses is bearing fruit, as 80 offers have been made. A New website has been launched and new brand guidelines have also been adopted. Considerable progress has been made in ERP implementation and some modules will be introduced in the coming months.

A monumental Project Parivartan, for Pilani campus with an outlay of 400 crore, has been announced and has started taking long strides for its modernization and expansion. BITS connect 2.0, a joint BITSAA international-BITS project has

been initiated to provide multi-campus virtual classrooms, immersive telepresence solutions for cross-campus meetings and collaboration etc.

academia : a confluence of ideas

Seminars / Conferences / Workshops / Training Programmes

International Conference on Sustainable Manufacturing (ICSM 10- 12 November 2011)

A three-day International Conference on *Sustainable Manufacturing* was inaugurated at BITS Pilani on 10 November 2011. Prof. Christoph Hermann from TU, Braunschweig, Germany was the chief guest for the inaugural session. Prof. Kuldip Singh Sangwan, the chairperson and convener of the conference introduced the theme of the conference and also elaborated on the importance of sustainable manufacturing in the

→ International conference by the Dept. of Mechanical Engg.



present scenario of the country. Prof. B N Jain, Vice Chancellor, BITS Pilani emphasized the importance of collaboration in building up a stronger university-industry linkage. The aim of

the conference was to provide an interdisciplinary platform on sustainable manufacturing for academicians, practitioners, engineers and students working in various areas under the umbrella of sustainable development. A total of seventy one papers were presented in thirteen sessions involving seven thrust areas in sustainable manufacturing. Prof. Mani Shankar Dasgupta, Head of Mechanical Engineering Department provided a short introduction to the department. The co-conveners of this conference were Dr Monica Sharma and Dr A K Digalwar from the Mechanical Department, BITS Pilani.

Diamond Jubilee Celebrations of the Department of Pharmacy BITS, Pilani (19 - 20 November 2011)

The BITS Pharmacy Department, one of the oldest in the country celebrated its 60th anniversary centered on the theme, *Global Opportunities & Challenges: Role of BITS Pharmacy Education*. Mr. K Anand, CEO Famy Care Ltd. was the chief guest for the event. Prof. R N Saha, Deputy Director BITS Pilani, Pilani campus and one of the top Pharmacy Professors in the country was felicitated for completing twenty five years of distinguished service for the institute. Prof. G Raghurama, Director, BITS Pilani, Pilani campus talked about the distinct curriculum of the Pharmacy Department that lays emphasis on research and development of drugs in line with the

→ Inauguration of Diamond Jubilee Celebration



→ Diamond Jubilee of Pharmacy



Vision of the Institute. Prof. B N Jain , Vice Chancellor BITS, Pilani in his recorded message also congratulated the Department of Pharmacy for successfully completing sixty years.

FDP Workshop on Tools and Techniques in Statistics and Simulation (29 September - 1 October 2011)

A three -day Faculty Development Program (FDP) *Workshop on Tools and Techniques in Statistics and Simulation* was conducted at VFAST by the Departments of Management and Mathematics, BITS-Pilani. Prof. S Kannan, Department of Management, BITS-Pilani delivered the welcome address. There were introductory speeches by Prof. R N Saha, Deputy Director, Administration and Conveners Prof. Anil Bhat and Prof. C B Gupta. The conference aimed to incorporate a combination of knowledge and computer tools for research and observation and enable the participants to apply the same in their respective professions. During the three-day workshop, Prof. Anil K Bhat, Prof. C B Gupta, Prof. N V Muralidhar Rao, Prof. S Kannan and Dr. Leela Rani, from different departments, addressed the participants.

Round table (17 October 2011)

A round table conference was organized by BITS Pilani on 17 October 2011 in Hotel Hyatt Regency, New Delhi. The objective of the conference was to

discuss *Role of Humanities and Liberal Arts on Science and Technology Education*. Eminent panelists such as Dr. J Ramachandran, Bain Fellow and BOC Professor IIM, Bangalore; Dr. Sudhir Chella Rajan, Professor, IIT Chennai; Padma Shri Dr. Ananda Shankar Jayant, Renowned Bharatanatyam and Kucchipudi dance maestro and a Sr. General Manager in the Indian Railways; Dr. Ranjani Mazumdar, Associate Professor, JNU Delhi; Dr. Ambuj Sagar, Professor, IIT Delhi and Dr. Pritha Chandra, Assistant Professor, IIT Delhi, participated in the conference.

The Round Table commenced with the Vice-Chancellor Prof. B N Jain introducing the panelists to the course structure and different programs of BITS Pilani. The conference was also attended by Prof. G Raghurama (Director, Pilani Campus), Prof. K E Raman (Director, KK Birla Goa Campus), Prof. V S Rao (Director, Hyderabad Campus), Prof. G Sundar (Deputy Director, Off-Campus Programs), faculty members and a few students from each of the three campuses. There was a great exchange of ideas and suggestions on how humanities and social sciences can be incorporated into the engineering and science curriculum in general and at BITS Pilani in specific. The panelists provided a visionary insight to the changes that can be made in the academic curriculum in order to make BITS Pilani one of the best universities in the world. The workshop was convened by Dr. Geetha B, Prof. Meenakshi Raman and Dr. Prasuna and was moderated by Mr. Kris Ramachandran and Prof. Shan Balasubramaniam.

Umberto©5 Workshop (1 – 4 November 2011)

A workshop was organized on “Umberto©5”, a state of the art software for process optimization and life cycle assessment (LCA), by Ms Patricia Egede of TU, Braunschweig, Germany and Prof. K S Sangwan of BITS Pilani at Pilani campus during 1 – 4 November 2011. 58 participants attended the workshop. Umberto©5 is used to calculate, visualize and evaluate material and energy flows, the consumption of resources or the carbon footprint of process/product through its life cycle.

distinguished lectures at BITS Pilani

SPEAKER	DESIGNATION/ ORGANIZATION	TOPIC	DATE
Mrs Sunita Avani Amin	Musician	Dhrupad Demonstration cum Lecture	12 July 2011
Mr. Kartikeya Mishra	IAS	How to make your academic and professional choices successfully	19 August 2011
Dr. Akanksha Chaturvedi	Research Fellow, Laboratory of Immunogenetics, National Institute of Health (NIH), Bethesda, Maryland, USA	Location is everything: Spatio-temporal regulation of B cell antigen receptor signaling from intracellular compartments	3 November 2011
Prof. Tarun Kant	Professor, Department of Civil Engineering	Development of Composite Mechanics in the Last Five Decades	5 November 2011
Dr. Ram Achar	Professor, Department of Electronics, Carleton University, Ottawa, Ontario	Advances in high-speed VLSI design modeling and analysis	28 November 2011
Prof. Raghuveer Singh	Director JK Padampat Singhania Institute of Management and Technology, Gurgaon, Haryana	Contemporary Approach to Writing Research Papers	26 - 27 November 2011

significant projects

Principal Investigator and Name of the Department	Title of the Project	Funding Agency	Amount and Duration
Dr. Sushil Kumar, Chemical Engineering Department	Reactive extraction of nicotinic- and isonicotinic acids from aqueous solution	DST	20.5 lacs 3 years
Dr. Navneet Gupta, EEE Department	Study of Electrical Behaviour of Nanocrystalline Silicon Thin-Film Transistor (nc-TFT)	UGC	1 Lac 2 years
Prof. Shamsher Bahadur Singh, Civil Engg. Department	Development and Usage of Innovative Ductile Composite Materials for Repair and Retrofitting of Masonry Structures	Aditya Birla Group	10 lacs 3 years
Prof. Subit Kumar Saha, Chemistry Department	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	Aditya Birla Group	10 lacs 2 years
Dr. Pratik N Sheth, Chemical Engineering Department	Modeling and Simulation of Viscose flow through Jetpack Assembly	Birla Cellulosic, Kharach, Gujarat, Aditya Birla Group	5.52 lacs 6 months

Principal Investigator and Name of the Department	Title of the Project	Funding Agency	Amount and Duration
Dr. P R Deepa, Biological Sciences Department PS Division, BITS Pilani — Chennai Centre	To investigate the effect of Fatty Acid Synthase (FASN) siRNA in a FASN expressing cell line	Indian Council of Medical Research (ICMR), New Delhi	9.24 lacs 3 years
Prof. Rajiv Gupta, Civil Engineering Department	Aakash Ganga – A Social Enterprise Model for RWH and Agriculture of low water demanding economically important plant	DST	61.96 lacs 2 years
Dr. Anupam Singhal, Civil Engineering Department	A study of Sludge minimization during the treatment of pickling effluent and recovery of metals from the treated sludge	ABG	10 lacs 3 years
Dr. Anupam Singhal, Civil Engineering Department	GIS Based Characterization of ground water in Shekhawati Region of Rajasthan	DST	18 lacs 3 years
Dr. Prabhat Nath Jha, Biological Sciences Department	Molecular Characterization of ACC (1-aminocyclopropane-1-carboxylate) Deaminase Activity of Associative Bacteria Isolated from Plants of Desert of Rajasthan	Department of Biotechnology, New Delhi, India	40 . 90 lacs 3 years
Dr. Rajesh Mehrotra, Biological Sciences Department	Natural and Engineered Lipases for Biodiesel Production	Aditya Birla Group (ABG)	10 lacs 1 year
Dr. Dalip Kumar, Chemistry Department	Design, synthesis and biological evaluation of indole-based heterocycles as anticancer agents	UGC	7.51 lacs 3 years

visits by faculty: enriching the learning experience

Prof. Kuldip Singh Sangwan, on the nomination of Indian National Productivity Council, participated in the study meeting on *Lean Management System in the Public Sector* during

16 – 19 August 2011 held at Bangkok, Thailand. He presented a study of lean management implementation in an Indian service sector organization.

Prof. Navneet Goyal visited the Department of Computer Science, Iowa State University (ISU), IOWA, USA during 28 July – 16 August 2011. The visit is in connection with the collaborative research that is undertaken with Prof. Shashi K Gadia, Department of Computer Science (ISU), in the area of Spatio-temporal data modeling and its application to agriculture. Prof. Goyal also visited La Trobe University, Melbourne, Australia on 02-03 December 2011 to discuss research collaboration with the Dept. of Computer Science and also to explore possibilities of collaboration at the university level between La Trobe and BITS-Pilani.

Dr. Subit Saha delivered an invited talk on *Effect of a Cationic Surfactant on the Binding of a Guest Molecule with the Nanotubes of β -cyclodextrin:*

A Possible Drug-Delivery System in the 4th Asian Conference on Colloid and Interface Science (ACCIS 2011) held at Department of Chemical

Engineering, National Cheng Kung University, Tainan, Taiwan, hosted by The Asian Society for Colloid and Surface Science (ASCASS) during 23 -26 November 2011.

Dr. Trilok Mathur visited University of Malaya, Kuala Lumpur, Malaysia to present a paper titled *How to teach easily? (Mathematics)* at the International Conference on Innovative Thoughts-Education, Management, Art, Science, Linguistic (Teaching and Learning) held during 12-14 August 2011.

Dr. Navneet Gupta presented a research paper on Sensitivity to over-etching of improved V-Shaped microcantilever and chaired a technical session in 7th International Conference on MEMS,

→ Dr. Navneet Gupta



NANO and Smart Systems held during 4 - 6 November 2011 at Kualalumpur, Malaysia.

Dr. D K Maiti presented a paper titled *Influence of Gap Height of Aerodynamic Forces on a Rectangular Cylinder with Various Aspect Ratio* at

→ Dr. D K Maiti



the 7th International Congress on Industrial and Applied Mathematics (ICIAM 2011) in BC, Canada, held during 18-22 July 2011.

Dr. Navin Singh delivered an invited talk on *Probability Analysis of Opening of dsDNA* in 106th Statistical Mechanics Conference at the Center for

Mathematical Sciences Research, Rutgers State University, The State University of New Jersey, USA during 18-20 December 2011.

Dr. Manoj Kumar Dutta visited Kuala Lumpur, Malaysia during 11 - 14 December 2011 to

→ Dr. Manoj Kumar Dutta



present a research paper in the 2nd International Conference on Advanced Science, Engineering and Information Technology organised by University of Kebangsaan Malaysia in collaboration with the Indonesian Society for Knowledge and Human Development (INSIGHT).

Dr. Abhijit Asati presented a paper on *A Purely MUX Based High Speed Barrel Shifter VLSI Implementation Using Three Different Logic Design Styles* at the 3rd International Asia

→ Dr. Abhijit Asati



Conference on Informatics in Control, Automation and Robotics (CAR 2011) held in Shenzhen, China during 24-25 December 2011.

Dipaloy Datta and Sushil Kumar presented a paper on *Statistical Modeling and Differential Evolution Optimization of Reactive Extraction of Glycolic Acid* at the 2nd International Conference on Biology, Environment and Chemistry (ICBEC-2011), Dubai, UAE, 28-30 December 2011.

Dr. Abhijit Digalwar presented a research paper on *Role of Knowledge Management in World*

Class Manufacturing: An Empirical Investigation in IEEE international conference on Industrial Engineering and Engineering Management held in Singapore during 6-9 December 2011.

Rajiv Ranjan Singh, Sailesh Conjeti and Rahul Banerjee presented a paper on *Architecting the BITS-LifeGuard Wearable Computing System: A Bio-signal-based Approach for Stress-level Monitoring of Automotive Drivers* at 14th International IEEE Annual Conference on Intelligence in Durham Hall, Center for Embedded Systems for Critical Applications of Bradley Department of Electrical and Computer Engineering, Virginia Tech., Blacksburg, USA during 5-7 October 2011.

Dr. Ashish Gujrathi visited Chemical and Biomolecular Engineering department of National University of Singapore (NUS) during 7-9 September 2011. He interacted with Prof. G P Rangaih towards collaboration on optimization of real world chemical engineering problems.

Dr. Swati Keskar presented a paper on *A Time-Recurrent HMM Decision Tree to Generate Alerts for Heart-Guard Wearable Computer* at the 38th International conference on Computing in Cardiology (CinC 2011) held in Hangzhou, China during 18-21 September 2011.

Dr. Poonam Goyal presented a research paper on *Concept Based Query Recommendation* in 9th Australasian Data Mining Conference (AusDM'11) hosted in University of Ballarat, Ballarat Victoria during 1-2 December 2011.

Dr. Rakesh Choubisa was an Invitee in the meeting held at CRNS, Paris on 28 November

→ Dr. Choubisa with the meeting delegates

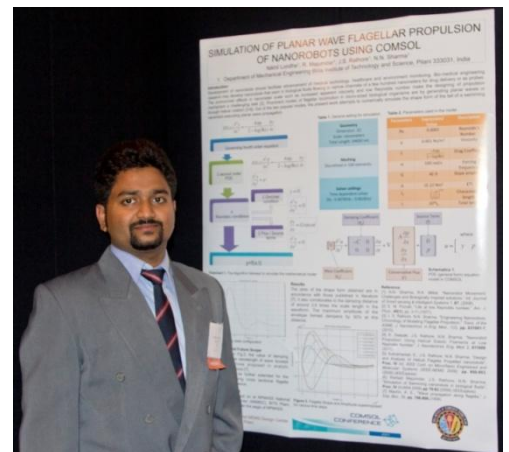
project consists of scientists from France, Germany, Italy, China, Russia, Japan, India and Czech Republic. Dr. Choubisa has been chosen as a Work Package Leader on the work package *Impact Spectroscopes Within Multiple Scattering*.

V Saxena, S Garg, D K Kochar and A Das presented a paper on *Molecular and Phylogenetic analysis of Plasmodium Vivax Apicoplast Genome* in the 22nd Annual Molecular Parasitology Meeting held at Marine Biological Laboratory, Woods Hole, MA, USA from 11 - 15 September 2011.

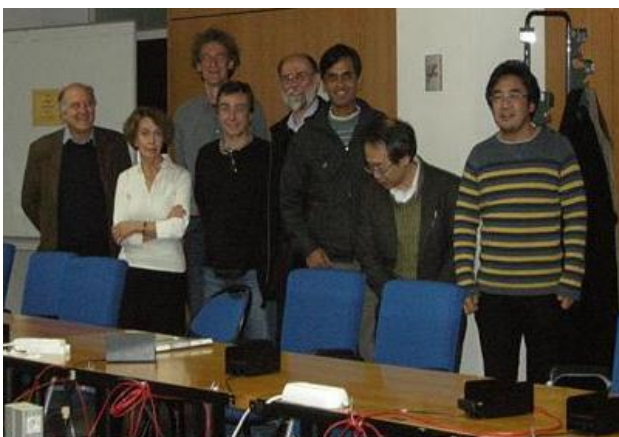
S Garg, V Saxena, D K Kochar, A Das presented a poster on *Novel Point Mutations in the Antifolate Drug Resistance Genes Among Plasmodium Falciparum and Plasmodium Vivax Isolates from India* in 22nd Annual Molecular Parasitology Meeting held at Marine Biological Laboratory, Woods Hole, MA, USA from 11 - 15 September 2011.

Rwitajit Majumdar presented a paper on *Simulation of Planar Wave Flagellar Propulsion of*

→ Mr. Rwitajit Majumdar at COMSOL



Nanorobots Using Comsol at the 7th Annual COMSOL Conference 2011, Boston during 13 – 15 October 2011.



2011 for the International Research Staff Exchange Scheme (IRSES) project. This project is on *A Multiple Scattering Computing Platform for (Nano) Materials* and it will be submitted to The European Commission's 7th Framework Programme. The consortium under this

invited lectures by faculty

Prof. V K Chaubey delivered an invited talk on *High Speed Optical Communication Networks: Modeling and Performance Analysis* at National Conference on Advances in Recent Technology in Communication & Computing at Marudhar Engineering College, Bikaner during 11-12 September 2011. He also delivered an invited talk on *Introduction to nanotechnology in nano electronics* at a National seminar on Recent Application of Nanotechnology in Engineering at BRCM College of Engineering & Technology, Bahal, Haryana, on 19 November 2011.

Prof. Arya Kumar participated in the NEN Faculty Advisory Board Meeting held during 24 - 25 November 2011 at Bangalore. He also delivered a keynote talk at the workshop on *Problems and Prospects of Emerging Women Entrepreneurs* organized by IIT Roorkee on 5 December 2011. He also participated as a jury member in the India Innovation Initiative – i3 Regional Fair 2011 organised by DST, Govt. of India, Agilent Technologies and Confederation of Indian Industry (CII) on 4 November 2011 in New Delhi.

Prof. Arya Kumar presented an invited paper titled *Role of Liberalised Policies in Development of Entrepreneurs* in the International Management conference on New Horizons of Entrepreneurial Development organized by Biyani Girls College during 25 - 26 November 2011 at Jaipur.

Prof. Arya Kumar and Prof. Anil Bhat participated in the seminar on *Decade of Innovation: India @ Year 1* organised by CII and National Innovation Council Govt of India during 16 - 17 November 2011 at New Delhi. They also participated in the Power Sector HR Round Table Conference organized by Indian School of Petroleum & Energy on 23 November 2011 at New Delhi.

Dr. Dalip Kumar delivered invited talks on *Organoiodine(III)-Induced Synthesis of Azaheterocycles* at International meet on Advances in Applied Chemical Sciences and Innovative Materials, India at Department of Chemistry, IIT Delhi, on 10-12 August; on *Design and Synthesis of Novel bis(indole)alkaloids Analogues as Potential Anticancer Agents* - at Department of Chemistry, University of Rajasthan, Jaipur, India on 10 -13 December; on *Design and Synthesis of Novel 1,2,4-Oxadiazoles as Tubulin*

Inhibitors at Conference on Challenges in Drug Discovery and Development (CDDD-2011) at CDRI, Lucknow on 9-10 December.

Prof. Surekha Bhanot delivered an invited talk on *Review of Controllers: Conventional to Recent* at Power Management Institute, NTPC, Noida on 5 December 2011.

Dr. Subit Saha delivered an invited talk on *Micellization Behavior of Gemini Surfactants with Hydroxyl Substituted Spacers in Water and Water-Organic Solvent Mixed Media: The Spacer Effect* in the 6th National Conference on Thermodynamics of Chemical and Biological Systems (NCTCBS-2011) held at Department of Chemistry, M. D. University, Rohtak under the auspices of The Indian Thermodynamics Society during 2 - 4 November 2011.

Dr. Ashish Gujrathi delivered an invited talk on *Process Optimization* during Simulation workshop CHEMxSERE 2011 at Pilani during 15-16 October 2011.

Dr. Jitendra Panwar delivered an invited talk on *Interfacing Agriculture with Nanoparticles* at Mahila P.G. Mahavidyalaya, Jodhpur during 17-18 December 2011.

Dr. M S Soni delivered talks on *Clean Development Mechanism (CDM), Carbon Foot print, Recent trends in Renewable Energy sector, and Energy Efficiency* in Short Term Training Programme on Recycling and Reuse of Engineering's Materials: Conservation of Energy Sources at the HVPM's College of Engineering and Technology, Amravati (Maharashtra) during 28- 29 November 2011.

Dr. Sanjeev Kumar Choudhary delivered an invited Lecture-cum-workshop on *POS-Morph: Urdu-Hindi & Maithili* held during 19-21 September 2011 at Central Institute of Indian Languages, Mysore.

Dr. M Ishwara Bhat delivered an invited talk on *Marketing of library and information services* at DELNET, Delhi on 25 November 2011.

Dr. Manjuladevi. V delivered an invited talk on *Effect of functionalized carbon nanotubes on physical properties of a liquid crystal* at Soft Matter Chemistry Workshop at Raman Research Institute, Bangalore on 10 November 2011.

Dr. Raj Kumar Gupta conducted a workshop on *Surface pressure induced pattern formation in Langmuir-Blodgett films of tricycloquinazoline based mesogen* in Soft Matter Chemistry Workshop at Raman Research Institute, Bangalore on 9 November 2011.

Dr. Sangeeta Sharma delivered an invited talk on *The power of public speaking: A tool to create an indelible impact with panache* in an International Conference on Consultation & Experience Sharing on Role of Humanities at Jaypee University of Information Technology, Wagnaghat (Solan) on 23-24 September 2011.

Prof. C B Gupta conducted a workshop on *Introduction to Statistics* at BITS Pilani and a workshop on *Importance of Mathematics* at IET, Alwar on 29 September and 15 October 2011 respectively. He also delivered an invited talk on *Operations Research* at IET, Alwar on 15 October 2011.

Dr. Anil Kumar delivered invited talks on *Imidazolium Based Ionic Liquids: Application in Organic Synthesis and Catalysis Workshop* at the Department of Chemistry, Deenbandhu Chhotu Ram University of Science & Technology, Murthal, Haryana on 29 September 2011; on *Synthesis of novel heterocyclic compounds employing multicomponent reactions and evaluation of their Src kinase inhibitory activity* in Conference on Challenges in Drug Discovery and Development at Central Drug Research Institute, Lucknow, UP from 9-10 December 2011; on *Synthesis of novel heterocyclic compounds and evaluation of their Src kinase inhibitory and anticancer activities* in 3rd International Conference on Heterocyclic Chemistry -2011 (3rd ICHC-2011) at Department

of Chemistry, University of Rajasthan, Jaipur, Rajasthan during 10 -13 December 2011.

Dr. Pushp Lata delivered an invited talk on *Fostering Value based education among Engineering Graduates through Humanities and Liberal Arts* in an International Conference on Consultation & Experience Sharing on Role of Humanities at Jaypee University of Information Technology, Wagnaghat (Solan) on 23-24 September 2011. She conducted a workshop on *Communication and Presentation Skills* at JK Padampat Institute of Management, Gurgaon, Haryana on 22 December 2011. She was also interviewed by *Shift learning, UK* regarding the improvement in the Cambridge University Press books on Grammar by Raymond and Murphy, and by Geoffrey and Leech. She also delivered an on-line lecture on *Critical Thinking for Professional Success* on 9 September 2011, by using Skype to Bannari Aman Institute, Sathyamagalam, Tamil Nadu on their 13th National Level Technical Symposium held during 8-10 September 2011.

Dr. Geetha B delivered an invited talk on *Integrating Humanities and Liberal Arts in Engineering Education: Need and Future Directions* in an International Conference on Consultation & Experience Sharing on Role of Humanities at Jaypee University of Information Technology, Wagnaghat (Solan) on 23-24 September 2011.

academic attainments of faculty

S.No.	NAME	DEPARTMENT	JOURNAL / MEMBER DETAILS
1.	Dr. Navneet Gupta	EEE	Reviewed the 4th WSEAS International Conference on Sensors and Signals, September 2011. He also reviewed the Journal of Material and Environmental Science, Morocco, September 2011 and reviewed one manuscript on Electromagnetic Field Theory to be published by Tata McGraw-Hill Publishing Company, New Delhi.
2.	Dr. Sushil Kumar	Chemical	Reviewed 3 papers for Journal of Polymers and the Environment and Desalination and Water Treatment, November, 2011.
3.	Dr. Chandra Shekhar	Mathematics	He was appointed as the Member of Editorial Board for the American Journal of Operations Research
4.	Dr. Subit Saha	Chemistry	Appointed as Associate Editor of Global Journal of Physical and Chemistry published by Simplex Academic Publishers, India on August 1, 2011. Reviewed 4 research papers for the Journal of Energy & Fuels, Journal of Colloid and Interface Science, Journal of Soft Matter and Langmuir.
5.	Dr. Prateek N Sheth	Chemistry	Reviewed one paper for the Journal of Fuel Processing Technology
6.	Dr. Deepa	Biological sciences	Reviewed 3 papers for the Journal of Cardiovascular Pharmacology, Journal of Basic & Clinical Pharmacology & Toxicology, 2011 December and the Journal of Ocular Biology, Diseases, and Informatics, 2011.

S.No.	NAME	DEPARTMENT	JOURNAL / MEMBER DETAILS
7.	Prof. Rajiv Gupta	Civil	Reviewed 6 papers for Journal of Construction & Building Materials; International Journal of Low-Carbon Technologies Oxford Journals, Oxford University Press; Computers and Concrete, An International Journal; Recent Trends in Civil Engineering & Technology, STM (Science, Technical & Medical) Journals; International electronic journals; Recent Trends in Civil Engineering & Technology. STM (Science, Technical & Medical) Journals.
8.	Dr. Jitendra Panwar	Biological Sciences	Appointed as Member, BOS (Board of Studies) committee, Mangalayatan University, Aligarh
9.	Dr. Maonj Soni	Mechanical	Reviewed a paper for The International Journal of Energy, Elsevier during October-November 2011
12	Dr. Bhupender Sharma	Mathematics	Reviewed 3 papers for the International Journal of Research and Reviews in Information Sciences, International Journal of Mathematics Trends and Technology, Open Journal of Fluid Dynamics. Appointed Editorial Board Member of the Journal of Mathematics and Sciences and Exceling Tech Publisher, UK.
13	Dr. Sharad Shrivastav	Mechanical	Appointed Reviewer of Journal of Developmental Biology and Tissue Engineering (JDBTE). : Sep 21, 2011
14	Dr. Abhijeet	EEE	Reviewed 8 papers for the following journals - International Journal of Manufacturing Systems, Asian Journal of Industrial Engineering, Research Journal of Business Management, IEEE international conference on Industrial Engineering and Engineering Management (IEEM 2011), Production Planning and control journal, Journal of Manufacturing Engineering, Journal on Logistics Research.
15	Dr. Sangeeta Sharma	Languages	Selected as Member of Editorial Board of Journal of Humanities, Tripura. 2011; Selected as Member of Editorial Board JK Journal of Management & Technology, Vol. 3(2), ISSN 0975-0924, Gurgaon.
16	Prof. C B Gupta	Mathematics	Reviewed a paper for the Yugoslav Journal of Operations Research, Serbia.
17	Dr. Anil kumar	Chemistry	Reviewed research articles for following international journals: Catalysis communication, Green Chemistry Letters & Reviews, Journal of Chemical Sciences, Future Medicinal Chemistry, Journal of Agricultural and Food Chemistry, Bioorganic & Medicinal Chemistry ,Journal of Molecular Catalysis A: Chemical, Bioorganic & Medicinal Chemistry Letters.
18	Dr Ashish Gujrathi	Chemical	Appointed program committee member of International Conference on Soft Computing for Problem Solving (SocPROS-2011), IIT Roorkee, Reviewed articles for Journal of Engineering and Computer Innovations, Reviewed chapters from the book titled 'Handbook of Optimization (Springer).
19	Dr. Pushp Lata	Languages	Reviewed two research papers for an international journal, Arab World English Journal and one for the International Journal of Social Sciences and Humanities by Pertanika Publishers and one for Art and Culture, A Journal of Bioinfo Publications.

accolades and achievements

Prof. Arya Kumar has been awarded *Goldman Sach 10000 Women awards certification Honours* for participating in the mentor development program in the year 2011 organised by London

Business School and National Entrepreneurship Network.

Navneet Gupta received *Bharat Jyoti Award* along with Certificate of Excellence from the Indian International Friendship society, in a ceremony held at Constitution Club, New Delhi on 11 November 2011 (National Education Day). This award was given in recognition of meritorious services, outstanding performance and remarkable contribution in the field of education and research. The award along

with Certificate of Excellence was presented by Dr. Bishma Narain Singh, Former Governor of Tamilnadu & Assam and Dr. JVG Krishnamurthy, Former Election Commissioner of India.

Prof. Shamsheer Bahadur Singh represented BITS Pilani on the *Committee of Ireland-India Concrete Research Initiative (IICRI)* at New Delhi on 16 December 2011. The IICRI explored the possibilities of collaborative research program between partner institutions for development of sustainable concrete infrastructures and design approach.

Dr. Poonam Goyal received the award of *Woman in Data Mining* in 9th Australasian Data Mining Conference (AusDM'11) hosted in University of Ballarat, Ballarat Victoria during 1-2 December 2011.

Prof. C B Gupta received the *Best Citizens of India Award 2011* by International Publishing House, New Delhi.

student round- up

Saurabh Ahuja [Captain (2008B4A2704P)], Abhinav Mahajan (2008C6TS554P), Harshdeep

→ Students after receiving Efficycle 2011 Prize



Singh (2010A4PS300P), Vineet Agarwal (2007B1A8209P), Ayush Agarwal, Hemant Kumar Singh (2010B5A1580P), Pawan Kunchey (2009A4PS306P) and Anjal Khan (2010B2A4364P) of BITS Pilani won the Overall 2nd position in **Efficycle 2011**, organized by Society of Automotive Engineers Northern India Section [SAE NIS], held from 14 October 2011 to

16 October 2011, at UIET Chandigarh. The 8 member team designed a 3 tired multi rider hybrid vehicle that runs both on human effort and batteries.

Dishank Upadhyay (2008A8TS270P) has been appointed by the DAAD (German Academic Exchange Service) as the Young Ambassador to Germany for the academic year 2011-2012. On 4 August, Christiane Schlottmann, Director of the DAAD, New Delhi handed over the letters of appointment to the second batch of fourteen 'Young Ambassadors'.

Saurabh Ahuja (2008B4A2704P), Ankit Khandelwal (2007B3A4655P) and Abhinav participated in a B-Plan competition at IIM Kozhikode. They were overall winners in the Whiteknight- Backwaters event held during 18-20 November 2011. Apart from this, they won **consolation prize at CONQUEST, Annual International B-Plan Competition of BITS Pilani.**

Rohit Pathak (2011A7PS004P) and Aqsa Inayat (2011A7PS017P) received the prestigious **Aditya Vikram Birla Scholarship 2011.**

Ajay Singhvi (2011A3PS029P), Nayan M Goyal (2010A7PS308P) and Lokesh Jindal (2008A3PS073P) received the prestigious **OP Jindal Engineering & Management Scholarship, 2011.**

Pinki (2010K108163P), Patel Hardik Himanshu (2010K108165P), Atul Gupta (2010K146177P), Jigish Jayantilal Parmar (2010K147191P), Anupama.D (2010K147190P), Chiranjeevi Venkatesh K (2010K146185P), Ankur Sharma (2010K108172P), Sudha Singh (2010K108162P), Rachumallu Ramakrishna (2010K146184P), Ashish Dutt Gajja (2010H108467P), Kumar Amit (2011H146187P), Nilanjana Sadhu (2008A5TS862P), Karkhanis Anesh Vidyadhar (2008A5PS432P), Jyothirmai Sirugudi (2008A5PS370P), Ankit Tankala (2008A5PS802P), Deepa Deepta Acharya (2009A5PS776P), Sanjeev Agarwal (2009A5PS882P), Vankadari Koushik Kumar (2009A5AB680P), Mohit Agarwal (2009A5PS499P), Shaurya Chanana (2010A5PS854P), Saloni Kapil (2010A5PS849P), Riddhiman Pal (2010A5PS776P) and Bandi Sai Sharan Reddy (2010A5PS840P) received the prestigious **Sir Ratan Tata Trust Scholarship, 2011**

Bhargav Golla (2009A7PS140P) got the **Runners Up** in the All India Web of Knowledge Quiz held during October – November 2011. Thomson Reuters, the parent company of Web of Knowledge

sent a gift of Canon Power Shot A 3200 IS camera to the Institute which was handed over to him by Prof Arya Kumar, Dean, Student Welfare Division.

Aditya Shankar Raghuvanshi (2007B5A4661) and **Aaksh Mohan Singhal** (2007A3TS168P) participated in finals of **Intel India embedded challenge** and won **First Prize in Smart Solution Category**, a sum of Rs. 50,000 for the Robot Shaurya, an autonomous ground vehicle designed by them. They also participated in DRDO Student Robot Competition 2010 held on 25-31 October 2010 held at Chennai, Shaurya was shortlisted among the 14 finalists out of 240 teams from different parts of the country. Shaurya received prize money of Rs 1 lakh.

renewing the bond

BITSAA

160 Alumni of the BITS 1982 batch made a reunion visit to the Institute along with their families during 7-9 October 2011. For all of them, it was an occasion to refresh the nostalgic memories of their student days, apart from renewing their personal contacts. On 8 October, the alumni had a pre-lunch interaction session

→ Prof. Maheshwari inaugurating BITSAA



with the faculty members wherein Professor Emeritus cum Advisor, Prof. L K Maheshwari, Chairman, Alumni Affairs Division, Prof. K E Raman, Deputy Directors, Prof. G Sundar and Prof. R N Saha and Faculty In Charge, Alumni Affairs Cell, Prof. Arya Kumar addressed the alumni members. In the evening, there was a musical night in which both the alumni and the students of BITS participated. A farewell to

graduating students was given on Saturday 3 December 2011 at the VFAST Lawns.

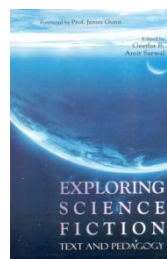
→ BITSAA event gathering



Prof. B N Jain, Vice Chancellor; Prof. G Raghurama, Director; Prof. G Sundar, Deputy Director, Prof. Arya Kumar, Dean Student Welfare Division, Faculty In-Charge Alumni Affairs, Prof. Sanjiv Choudhary, Chief Warden and Prof. Surekha Bhanot, Warden, Meera Bhavan, spoke on the occasion and conveyed best wishes to the graduating students to make their dreams come true. Several students shared their experiences and mentioned how BITS helped them in their career. The program ended with a high tea.

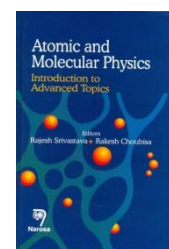
Distinguished Alumni awards were conferred for outstanding achievements in various fields to Hon'ble Prithviraj Chavan Chief Minister Maharashtra, Padma Bhushan Shri B N Kalyani, Chairman, Kalyani Group; Padma Shri Prof. Goverdhan Mehta, President, IUPAC; and Padma Shri Prof. D Balasubramanian, President, Indian Academy of Sciences during Convocation 2011 held on 28 August 2011 at Pilani.

in print



Exploring Science Fiction, Geetha B. Amit Sarwal, SSS Publications, New Delhi.

Atomic and Molecular Physics, Rajesh Srivastava, Rakesh Choubisa, Narosa Publishing House.



project embryo

This semester Embryo widened its spectrum of talks. Besides conducting regular lectures by eminent speakers, it conducted lectures on career guidance that include the BITS2MSPHD, BITS2BSchool, pre-MBA Options and also lectures that complemented new start-up ideas. Embryo had two speakers Rahul Viswanath and Santhosh Kasavajjala who gave series of talks on basic electronics. The table given below consists of a list of speakers and the title of their talks organized by *Embryo*:

Speaker	Designation and Affiliation	Title of the Talk	Date
Nina G. Jablonski	PhD., FSB, Distinguished Professor of Anthropology, Pennsylvania State University, USA	Living Color: Exploring the Evolution and Meanings of Human Skin Color	9 November 2011
Saurav Patyal	Intern at Sunborne Energy Technologies	Pre - MBA options for fresh graduates	16 October 2011
Santhosh Kasavajjala	BE(hons) Mechanical Engg and BE(hons) Electricals and Electronics Engg from BITS Pilani in 2002, Masters in Electrical Engineering from Stanford University	Stability of Circuits	15 October 2011
Srini Swaminathan	BE(Hons.) EEE, BITS, Pilani (1997-2001) Schlumberger, 2001-2009, UNDP Volunteer in Tsumani affected villages	Youth Leadership Through Teaching	15 October 2011
Rahul Viswanath	MSc. Maths and Electronics and Instrumentation Engineering , BITS Pilani	The Common Source Amplifier	13 October 2011
Sharad K. Maheshwari	PhD in Industrial Engineering from the University of South Florida, Tampa (1992), Undergraduate and master degrees at the University of Roorkee (now IIT, Roorkee)	Supply Chain Management (SCM)	10 October 2011
Santhosh Kasavajjala	BE(hons) Mechanical Engg and BE(hons) Electricals and Electronics Engg from BITS Pilani, Masters in Electrical Engineering from Stanford University	Analysis of MOS Amplifiers	8 October 2011
Rahul Viswanath	MSc. Maths and Electronics and Instrumentation Engineering from BITS Pilani(2010)	The Story of the Transistor	6 October 2011
Dhruv Balwada	BE Chemical Engineering, BITS Pilani, Goa Campus. PhD student at University of South Florida	MS/PhD - A Primer on Applying for Graduate Studies	1 October 2011
Raj R. Rao	BE(Hons)]Chemical , BITS, Pilani , MS in Biotechnology from the University of Texas, San Antonio, PhD University of Georgia	Multidisciplinary approaches to simulating microenvironments for stably expanding and controlling the differentiation of stem cells	30 September 2011
Santhosh Kasavajjala	BE(hons) Mechanical Engg and BE(hons) Electricals and Electronics Engg from BITS Pilani, Masters in Electrical Engineering from Stanford University	Analysis of RC Circuits and basics of Circuit Theory	10 September 2011
Vidyashankar M. Vellal	MSc. Economics and BE Computer	Harvard Business School 2+2	4

Speaker	Designation and Affiliation	Title of the Talk	Date
	Science Engineering from BITS Pilani	Program: BITSian Perspective	September 2011
Naveen Goel	MMS from BITS, Pilani, LLB from Delhi University	General law for start ups- Contract, employment, IP, company	18 August 2011

creative zone

Ragamalika

Ragamalika, the classical music and dance club of BITS Pilani, commenced their events with *Surshringar* – a Hindustani recital on 22 August. Their next event *Nritya Ranjani* was held in the auditorium on 11 October. The theme of the concert was Dashavathar – the ten manifestations of Lord Vishnu namely Matsya, Kurma, Varaha, Narasimha, Vamana, Parasuram, Ram, Krishna, Buddha and Kalki Avatars. The choreography and the composition of music for the entire show was done by the students of Ragamalika themselves. The Narasimha Avatar, was brought alive by the outstanding performances of Niranjana, Sushmita and Kuheli. The music composed by Ajay was rendered by a rich variety of instruments with Ajay on violin, Preethi on Veena, Hemant on Hawaiian Guitar, Isha and Digveer on Sitar and Ashwin and Ayush on flute. The Krishna Avatar, was outlined beautifully by Madhulika as the young Krishna. It also had vocal pieces interspersed with instrumental music, rendered by Anubha, Yudhajeet, Kaushik, Krishnamurthy and Rohan. During Oasis, Ragamalika conducted Swaranjali and Tandav – the classical music and dance contests respectively. The *psenti concert* was held on 26 November which was given by Preethi, Aishwarya and Abhineet, veterans of the club.

SPICMACAY

Spicmacay's first concert was a Kathakali performance on 11 September by Padma Shri Kala Mandalam Gopi and his team. The dance basically depicted the Bhima Hanumana episode from Mahabharata. Second concert on 13 September was a Hindustani Vocal performance by Pandit Bolanath Mishra who was accompanied by a leading sarangi player Pandit Bharat Bhushan Goswami and tabla player Pandit Shambhunath Mishra. Another spectacular performance of the year was by Padma Shri Shovana Narayan, a venerated Kathak maestro of India on 20 September. She brought alive the life

of Lord Buddha. The last performance this semester was a tribal dance called Purulia Chhau on 3 October by a troupe of 18 performers. It is a genre of Indian tribal martial dance which is popular in the Indian states of Orissa, Jharkhand and West Bengal. The elaborate masks, the dazzling costumes, the rhythmic drum beats and vocals, characterized the Chhau dance. A distinctive feature of this dance was the acrobatic use of the body and the intricately crafted masks worn by the dancers.

MATRIX

Matrix – the literature club of BITS Pilani commenced its activities with an internal review of the book *To Kill a Mockingbird*. This was followed by the quiz *Paradox*. This semester Matrix was invited by the organizing team of BITS Open Sports Meet (BOSM) to screen two movies *Chariots of Fire* and *Cinderella Man* that have sports as their central theme. Thereafter, Matrix organized a book-introduction session on the 11 October. In this session four panelists introduced four different books. Dr. Rishikesh Vaidya gave a very thought-provoking introduction to Bimal Jalan's *The Future of India*, Aman Gupta introduced Robert M. Pirsig's popular philosophical treatise *Zen and the Art of Motorcycle Maintenance*, Sriram VJ introduced Jonathan Swift's classic *Gulliver's Travels* while Vibha Chandramouli introduced A.J. Cronin's medical thriller *The Citadel*. In October, Matrix organized three successful events in OASIS. The cult Matrix event were *Triathlon*, *Point Blanc- the Movie Quiz* and *Movie Screening*. Post-OASIS, Matrix conducted a review of the book *The Shadow of the Wind* (by Carlos Ruiz Zafon) on 18 November. The panel comprised of Prof. Shan Balasubramaniam, Dr. Geetha B, Sairam Subramaniam and Harsh Y Thakar. The semester ended with the valedictory ceremony graced with the presence of dignitaries including Director Prof. G Raghurama, Prof. Rajiv Gupta, Prof. NVM Rao, and Dr. M Ishwara Bhatt among many others.

caring beyond our walls

Conquest 2011

Centre for Entrepreneurial Leadership, BITS Pilani organized the 8th edition of its Annual Business challenge and Entrepreneurship Conclave, *Conquest 2011* during 20-21 August 2011. The Out of Box conference organized on 20 August brought together innovative minds such as Sanjeev Kakar, a BITS graduate and founder of Intarvo Technologies; Shri KTS Tulsi, Vice-Chairman of the Law Commission of India and former Additional Solicitor General of India;

→ Conquest 2011



Padma Shree Dr. P Namperumalsamy; Padma Shree awardee and Chairman of the Arvind Eye Care Hospital, Madurai; from across the world to share their ideas to innovate, inspire and conquer. Eminent speakers like Shri KTS Tulsi and Dr. P Namperumalsamy, K J Alphons, the former firebrand IAS officer; Mr. Akshat Rathee, MD of the Nodwin Group; and others urged the students for their innovative initiatives to address social-economic problems of the country. Phyzok learning Solutions LPP, headed by Mr. Lohit Sahu was declared the winner of Conquest 2011. The first runner up of Conquest 2011 was GharPay, which was represented by Mr. Arpit Mohan, that provides operational solutions.

CEL also presented two consolation prizes to Teevra Cycles Ltd. and Reap Benefit. The prize includes incubation at Aegis Center for Entrepreneurship and a

prize of Rs. 10,000. Prof. Arya Kumar, Professor in-charge of Centre for Entrepreneurial Leadership, BITS Pilani gave away the prizes. The winners for this year Mantra Awards instituted by Anupendra Sharma, co-founder of CEL, Investment Partner at Siemens Venture Capital in Boston, and CEL Alumni Advisor were Raghav Mimani, Apurva Misra, Rohit Agarwal, Ankit Gupta and Sharath Chandra Holla V.

BOSM (14-18 September 2011)

With participation of over 1200 participants from almost all parts of the country, the annual sports festival of BITS, Pilani was inaugurated. Teams from Sri Lanka i.e from University of Colombo and Moratuwa were again a part of the BOSM this year after receiving eminence last

→ BOSM



year. This year BOSM was graced by the presence of Dr. Rajat Chauhan, the Chief Guest, Founder & Medical Director, Back to Fitness and Elect - Chairperson, 2011 World Congress for Science & Medicine in Cricket and Guest of Honour

→ Swimming competition at BOSM



Mr. Hanuman Singh, a recipient of Arjuna Award in the year 1986. He represented Indian

basketball team in the year 1971 and won gold medal in 1980 and 1986. Freestyle riders and freestyle football by Street kings India organized by Jhankar added glory to the inauguration. Dance Club with its overwhelming performance rocked the floor. This year BITS Pilani won the best team award in athletics. University of Colombo (UOC) bagged the prize in long jump. In carom also UOC stood first. Having crowned champions at *BOSM* last year, BITS Pilani's basketball teams failed to live up to the expectations this time as both boys and girls team crashed out in successive matches during the quarter finals. Hindu College won gold this year in basketball (boys) whereas JMC won gold in basketball (girls) defeating SRCC who was into the finals again this year. In lawn tennis, cricket and volleyball, BITS Pilani became the runner up and won silver medals. In table tennis, boys and girls of Hansraj college and MNIT, Jaipur won the gold medals. UOC, the team from Colombo won gold in hockey and Champions Trophy was won by SRCC.

OASIS (20 to 24 October)

Oasis, the cultural festival of BITS Pilani entered its 41st year in 2011. *Oasis 2011* started with a wonderful inauguration with the introduction of the StuCca body. The performances by the Dance club and Mime club were very impressive. Professional shows have always been one of the most awaited events of the fest. Kailash Kher performed during *Oasis 2011*. Hindi Activities Society organized the Killer Comedy Show in which Nitin Gupta and Kuldeep Dubey gave their performances. Adding to the effect was the Good Shoes, an Indie band from UK.

Continuing the chain of music events was the Rocktaves, the paradise for all the rock lovers.

→ Kailash Khair singing at the auditorium



→ Students performing at Razzmatazz



Sonic Stampede, Andholika, Tarang, Fusion were several other musical competitions.

Razzmatazz and Choreo were the main events of dance. Desert Duel and Tandav too displayed some form of dance. The next category of dance was the Street Dance which was appreciated by everyone. Stage plays in English and Hindi gave the platform to the participants to showcase their talents and the participants utilized it properly by displaying amazing acting abilities. Fash-P was an other awaited moment of the fest organized on the last day in which several college teams sizzled on the ramp with the theme – The Roadtrip.

BLAB, Mamo, Spoofermania, and Oasis Debate were the events organized by the various clubs and departments of BITS Pilani in which students participated in large numbers. Another highlight of the fest was the Treasure Event in which participants wandered all over the campus looking for the clue to the next rung of the ladder.

UGC Centre for Women Studies (January-July 2011)

Centre for Women Studies, BITS, Pilani in collaboration with the Nirman organization of BITS, Pilani organized a training Programme on *Pottery Making*. Around 35 participants from BITS Campus and outside the campus (Haripur) participated in this Workshop. Mrs. Madhu Jain, who takes keen interest in women activities and works with specially abled people graced the event with her presence as the special guest for the event. A Panel discussion on *Legal Literacy: Are We Aware of our Rights?* was also organized on 15 October 2011 with the objective to make women aware of their legal rights. Mrs. Madhu Jain was the Chairperson of the event and Mrs. Alka Bisaria Bhatnagar, Lawyer, High Court Jaipur

→ UGC Centre for Women Studies



and Dr. Bulbul Dhar, Honorary Director, Sarojini Naidu Centre for Women Studies, Coordinator M.A. Human Rights Programme, Jamia Millia Islamia, New Delhi and Dr. R P Pareek, MD, Medical Centre BITS, Pilani, were the resource persons for the workshop. Forty -five women and students from the BITS and BET participated in the discussion. Besides these activities, Prof. Sangeeta Sharma, the Coordinator UGC Centre for Women Studies was also invited to attend a two-day workshop during 28 -29 August 2011 meant for all the directors of Women Studies Centre.

NSS

A tree plantation drive was organised by NSS with the help of the engineering services division and the student welfare division on 15 August 2011. Around 120 ashoka trees were planted in 4 Bhawans. Around 50 volunteers took part in this drive. A mini marathon was organised by NSS during BOSM on 18 September 2011 in the campus. The tagline for the marathon was *Don't Smoke Your Life Away*. Around 100 individuals, including BITSians, non-BITSians and faculty members, turned up for the event making it a great success. Continuing the tradition of our

→ NSS



cultural festival, NSS BITS Pilani this year also organized a stall in OASIS, 2011. The stall was setup in C-lawns from 20 - 24 October and was handled by more than 35 volunteers. It was inaugurated by Prof. R N Saha Deputy Director, BITS-PILANI. The theme of this year's stall was *We make a living by what we get, we make a life by what we give*. In the semester, with the funds collected from the students by the volunteers, a total of Rs. 1,55,000/- was given as scholarship to 25 meritorious but financially weak students belonging to the nearby villages.

NIRMAAN

Students, faculty and other members of the society, all united in thought, marched in silence in support of the anti-corruption movement on 20 August. Miles from the Ramlila Maidan in Delhi, BITSians demonstrated their own desire for a corruption-free society by turning out in large numbers and participating in the Candle Light March organized by Nirmaan. As a part of the 64th Independence Day Celebrations, Nirmaan

→ SAP Teacher's Day



organized a function at the Govt. School in Baas village under the SAP Project. A series of events were conducted during the Joy of Giving Week, 2011. The unique aspect of this year's JOGW is the part that involved the downtrodden children of Banjara community. These children were brought to the campus. After a campus tour, Informalz, HCA and Music club extended their hearty co-operation by treating the students of Gyan Bodh to a memorable performance. The projects of Nirmaan such as Gyan Bodh, Interconnectivity of Schools, School Adoption programme, Shiksha Ki Oor and Career Workshops are the highlights of the semester. As usual Self Help Groups continued their effort of creating a platform

for the rural women to earn a livelihood using their artisan skills.

World Space Week (4 - 10 October 2011)

World Space Week is an annual celebration of astronomy societies around the world organized from 4 - 10 October to commemorate the progress of space science and technology, and its contribution to the betterment of humanity. In collaboration with BITS Physics Society, Astro club had organized a series of events for the benefit of BITSians and school children in and around Pilani. There were night sky watching sessions for BITSians and the faculty members. In addition, the club organized sessions for the school children and the underprivileged (the latter, in collaboration with NSS, BITS Pilani). Among other events was a fun astronomy quiz organized by the BITS Physics Society and an illuminating online lecture (with help from BITS Embryo) on *Wonders of the Night Sky* by Mr. Chander Devgun, Chairman, SPACE India, and the coordinator of the World Space Activities in India.

National Education Day - 2011

National Education Day was celebrated on 11 November 2011 by the Department of Languages and Humanities, BITS Pilani to commemorate the birth anniversary of Dr. Maulana Abul Kalam Azad, the first Education Minister of Independent

→ Celebrating National Education Day



India. The function was presided over by Prof. G Sundar, Deputy Director, BITS, Pilani followed by a welcome address delivered by Dr. Pushp Lata, Head, Languages Department. On this occasion,

a student panel discussion was also organized on the theme *Education in Knowledge driven Society: Challenges in 21st Century*. The panel participants included Aaksha, Niyati, Tejaswi, Swapnil, Siddharth Arya, Chaitanya and Rishabh Gupta. The honourable Chief guest, Prof. Sundar and Prof. Sarkar expressed their views on *Role of Education in the Developing World*.

Reverentia 2011

The idea of REVERENTIA 2011 was conceived when the students and faculty member of the Academic Counseling Cell of BITS Pilani thought of celebrating the Teacher's day on 5 September in a novel way. The main idea was to have a panel discussion on the topic "Student teacher interaction at BITS -- expectations, strategies and challenges". The panel consisted of faculty members (Prof. Sundar Balasubramaniam, Prof. Geetha B., Prof. Rishikesh Vaidya and Prof. Manoj Kannan) and students (Rohit John Varghese, Deepika Mandawa and Govindam Yadav). The discussion did touch upon some of the sensitive yet core issues like attendance and seriousness of make-up cases, but it was all healthily debated. Vice-Chancellor Prof. B.N. Jain, Director Prof. Raghurama and Deputy Director Prof. R N Saha and lot of other faculty members actively participated in the event. In an attempt to boost the student-teacher interaction, REVERENTIA also featured joint musical performances by faculties and student

Engineers Day

44th Engineers day was celebrated on 15 September, 2011, the birthday of Sir Mokshagundam Visvesvaraya. The theme of this year's celebration was *Engineering Preparedness for Disaster Mitigation*. Prof. G Raghurama, Director, BITS Pilani Campus while addressing the gathering highlighted the character of Sir Visvesvaraya. Selected presentations on topics like application of wireless adhoc networks, mobile phones, advanced alarm systems, advanced housing structures, remote controlled vehicles and bio terrorism were presented by the students and staff members of the Institute. Prof. K S Sangwan, convener of the programme, delivered the welcome address and introduced the theme of the programme. Dr. M S Soni proposed the vote of thanks.

introducing new faculty

S. No.	PSRN	Name	Designation	Discipline
1.	3103	Mr. Akula Sashikanth	VFAC	CSIS
2.	3110	Dr. Indrajit Ghosh	VFAC	CE
3.	3112	Dr.(Ms.) Diksha Sharma	VFAC	LANG
4.	3113	Mr. Piyush Gupta	VFAC	LANG
5.	3116	Dr. (Ms.) Lajja	VFAC	MATH
6.	3117	Dr. (Ms.) Shashi	VFAC	MATH
7.	3118	Dr. Ashish Tiwari	ASTP	MATH
8.	3119	Dr. Harikrishnan Gopinadhan Nair	ASTP	HUMS

editorial team



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Members of Editorial Committee: Dr. Virendra Singh Nirban and Dr. Sushila Shekhawat

Special Thanks to Dr. Diksha Sharma, Mr. Rwitajit Majumdar, Arun Kumar Poonia and Sukanya Mondal.



BITS Pilani
Pilani Campus

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Toppers of 22 boards opted for BITS, Pilani
शिक्षा में अनुसंधान जरूरी

युवा उद्यमी बनकर वैरोजपारी दूर करें
पिलानी | देश में अगले कुछ वर्षों में आवश्यकता होगी। युवा उद्यमी बनकर वैरोजपारी दूर कर सकते हैं। यह बात नोडल ऑफिस के अध्यक्ष ने कहा।

बिट्स के दो छात्रों को 58.5 लाख का पैकेज
अब तक का सर्वाधिक पैकेज

सर्द थाम में थिरकते रहे कदम
कदम के छात्रों ने सर्दियों में थिरकते रहे।

नई पीढ़ी को नए ऊर्जा स्रोतों की जरूरत
इंटरनेशनल कॉन्फ्रेंस के 13 सत्रों में 77 पेपर प्रस्तुत होंगे

पर्यावरण के अनुकूल हो उत्पाद
पर्यावरण के अनुकूल हो उत्पाद।

खींच लाई अपनों की याद
अपनों की याद खींच लाई।

New pharma research centre
BITS-Pilani's pharmacy department celebrated its 60th anniversary on November 19-20. RN Saha, senior professor at the institution, announced the establishment of a new research and innovation centre in collaboration with the pharmaceutical industry.

देश की तीन यूनिवर्सिटी में एक होगा बिट्स पिलानी
देश की तीन यूनिवर्सिटी में एक होगा बिट्स पिलानी।

'Indian drug industry among world's best'
The Indian drug industry is among the world's best, according to a report by the Pharmaceutical Research and Manufacturers of America (PhRMA).



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