

# BITScan

Semester Notes

Issue 14



*Semester II*

*2008 - 2009*

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**BIRLA INSTITUTE OF TECHNOLOGY  
AND SCIENCE**

Pilani - 333031  
Rajasthan

## EDITORIAL

Keeping in with the quintessentially eventful ambiance of BITS, the last six months too registered significant and variegated events that kept unfolding and thrilling us as the semester progressed adding a few more remarkable feathers to the illustrious cap of the Institute. Since the Institute kept on exploring newer horizons during the II Semester 2008-09, it becomes virtually impossible for us to recount all its triumphs and conquests registered throughout the semester. However, it won't seem singularly out of place to recapitulate some of the most distinguished highlights of the semester.

Indeed the semester kicked off in style with the inspirational revelation that the NAAC Committee the one that had visited all the three campuses of the Institute in the preceding semester - had conferred on BITS the highest grade 'A' while awarding to it a Cumulative Grade Point Average of 3.71 on a 4 Point Scale. The news brought cheers all around and soothingly warmed all the denizens of BITS.

The robust march of the semester continued as the Institute was privileged to host a significant three-day visit by the doyen of the Birla family, Shri B.K. Birla and Smt. Sarala Birla along with a group of 16 CEOs of various industries of B. K. Birla Group. The distinguished guests evinced keen interest in the grand library and the Rain Water Harvesting project of BITS. Since their visit coincided with the technical festival of the Institute, they visited some of the projects displayed by the students of the institute. Some of the outstanding working models included All Terrain Vehicle, Solar Trike, Unmanned Area Reconnaissance System, etc. Deeply impressed with students' efforts, they highly appreciated their innovative spirit and fervour and encouraged them to continue doing it.

That research at BITS has taken a giant leap, was evidently witnessed when the news broke that Prof. R.N. Saha, Dean, EDD and Dr. Murali Raman, Assistant Dean, EDD were granted a patent for an invention entitled 'Stable Controlled Release



Pharmaceutical Composition Comparising Acexlofenac' for the term of 20 years with the provisions of the Patents Act, 1970. It got further evidenced as Dr. N.N. Sharma, Assistant Dean, ARCD secured an immensely valuable NPMASS Software Tools for MEMS Design which cost rupees 75 lakh. It goes without saying that achievements such as these will further augment the research drives of the institute. Moreover not unlike the preceding years, the students of the Institute kept on winning us more laurels as our two AcYut teams consisting of seven students under the guidance of Prof. R.K. Mittal, Deputy Director (Administration) not just participated but went on to bag one silver and two bronze medals in the prestigious International Robo Games Competition held at San Francisco from June 8 to June 18, 2009. This was the world's biggest open RoboGames competition, which witnessed over 250 teams participating from 28 different countries. Supriya Vadlamani another student of our Institute also received Second Google India Women Award in Engineering. Continuing their



spirit of innovation and creativity, students of the Institute also showcased various projects during APOGEE and Interface and also went to participate in various types of competitions held by various reputed institutes and universities and won awards as well.

Not only this, the faculty members of the Institute also visited several universities and institutes in India and abroad to broaden their horizon of knowledge and share their experiences beyond boundaries. Moreover, this semester a good number of distinguished speakers and experts visited our Institute and delivered talks and lectures to share their domain expertise. Faculty members from various disciplines were also awarded grants by several agencies to carry out research projects in their respective areas.

The semester was rounded off in greater enthusiastic fervour as the Institute's growing popularity and prestige became more pronounced with a staggering number of 1,23,820 applications

received for BITSAT'09 for 2000 seats. The fact that this year as many as 27 All India Board Toppers have sought admission in BITS campuses, besides a significant increase in the number of girls students as compared to 18.4% in the preceding year, goes on to further underline the growing eminence of the Institute which provides the institute an unmistakably cosmopolitan temper and exuberance free from all the barricades and brackets of caste, colour, region, religion- so typical of the cult and culture at BITS.

Notwithstanding all the newer heights attained by BITS in the preceding semester, the Institute does not intend to sit on its laurels and is committed to achieve in the coming years the horizons hitherto unexplored. To translate such dreams into reality the first draft of Vision 2020: Mission 2012, prepared under the dynamic stewardship of Prof G. Raghurama, Deputy Director (Academic), was released for internal discussion. As a workshop was conducted under the seasoned guidance of Prof. L.K. Maheshwari, our honorable Vice Chancellor during 12 - 14 April 2009, the vision of monumental significance seems to have taken roots as Vision 2020: Mission 2012. All this is to help the institute set itself on a more enterprising voyage in pursuit of further excellence and innovations in the years to come....

## ACADEMIA

### A Confluence of Ideas

#### Seminars/Conferences/Workshops/Training programs

##### Workshop on High Performance Digital System Design (16-18, January, 2009)

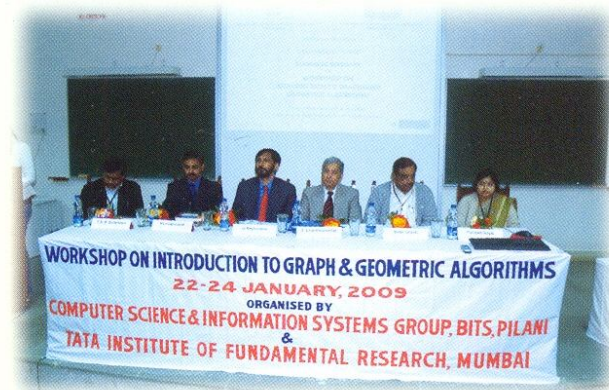
A three-day workshop on High Performance Digital System Design was organized at the Institute by EEE Group. The workshop was inaugurated by Prof. L.K. Maheshwari, Vice Chancellor. Dr. Anu Gupta, Coordinator of the workshop welcomed the guests



and the participants and introduced the theme of the workshop to the audience. Dr. Shubhendu Kr. Sahoo, Joint Coordinator of the Workshop proposed the Vote of Thanks. Nearly sixty participants which included 13 faculty members from various institutions across the country attended the workshop. Senior faculty members of EEE group of the Institute and scientists of CEERI, Pilani acted as resource persons.

##### Workshop on Introduction to Graph and Geometric Algorithms (22-25 January 2009)

A three-day introductory workshop on Introduction to Graph and Geometric Algorithms was jointly organized by BITS, Pilani and Tata Institute of Fundamental Research, Mumbai. It was inaugurated by Dr. Chandra Shekhar, Director, CEERI, Pilani. Dr. Chandra Shekhar in his address



spoke of the significance of the workshop in terms of wide exposure that it will give to the students and faculty of BITS and to all other participants. Dr. Navneet Goyal, Co-coordinator of the workshop delivered the welcome address. Dr. Poonam Goyal, Coordinator of the workshop introduced the theme and elaborated on the objective of the workshop. Prof. Subir Kumar Ghosh, TIFR, Mumbai, Co-coordinator informed the gathering of the two fold importance of the workshop. Firstly it was being organized on the occasion of the birth centenary of Dr. Homi J. Bhabha and secondly, it was a part of a series of workshops that TIFR has planned to organize across the country this year which will benefit the participants in designing, analyzing and implementing complex software, especially arising in the field of robotics, geographical information systems, route planning, wireless and mobile networks. Prof. G. Raghurama, Deputy Director (Academic) also addressed the gathering and stated that the workshop would lead to active collaboration between participants and resource persons in the graph and algorithm areas. The workshop was highly successful as it was attended by over 60 delegates and 200 student participants.

## Research workshop on UK-India Education Research Initiatives (UKIERI) (16-18 February 2009)



The Civil Engineering Group organized the UKIERI (UK-India Education Research Initiatives) Research Workshop and Network Concrete Meeting to present the progress report of ongoing research projects entitled Sustainable Concrete Construction and Infrastructures in UK and Indian Partner Institutions, led by University of Dundee, UK and BITS Pilani. Seven partner institutions from India and two from UK participated in the events. Prof. L.K. Maheshwari, Vice-Chancellor, BITS, inaugurated the workshop and welcomed the delegates. Prof. S.B. Singh introduced the participants. Prof. R.K. Dhir from university of Dundee, UK and Prof. Bishwajeet` Bhattacharjee from IIT Delhi addressed the delegates and highlighted the importance of the UKIERI research workshop and network concrete meeting. This meet was a grand success and was profusely lauded by the participating delegates.

## Conference on Emerging Trends in Life Sciences Research (27-28 February, 2009)

The national conference was organized by Biological Sciences and Pharmacy Group at BITS, Pilani. Prof. Ravi Prakash, Dean, R & C Division, delivered the welcome address on this occasion.



Prof. L.K. Maheshwari, Vice-Chancellor, BITS Pilani, inaugurated the conference and he encouraged the participants to indulge in research that is helpful for common man. Dr. Sunita Saxena, Director, Institute of Pathology, ICMR, New Delhi delivered the keynote address. The conference was attended by around 95 researchers from leading research institutes and industries such as Sankara Nethralaya, LV Prasad Eye Institute, Institute of Pathology, Ranbaxy, Torrent, etc. Both, oral and poster presentations were conducted during these two days. The conference facilitated the networking of research activities and exchange of research ideas.

## Workshop on NGO Motivation and Networking with CAPART (13-14 April 2009)

A two-day workshop on NGO Motivation and Networking with CAPART (Council for Advancement of People's Action and Rural Technology) was held at the Institute. The workshop aimed at creating awareness about CAPART projects as well as formulating its new guidelines and establishing a



network with educational institutions, government departments and other organizations in the Shekhawati region. The convener of the workshop Dr. Motilal Dash welcomed the participants from around 50 NGO's all over India and elaborated on the objective of the workshop. Shri K.C. Katariya (Regional Representative & Member Convener of CAPART), the Chief Guest of the workshop assured the participants of CAPART's help in this direction. Dr. Chandrasekhar, Director, CEERI, being the Guest of Honour, told the gathering that innovative thinking and active involvement with the problems as well as the solutions are very important for the betterment of the society and organizations like CAPART play a very important role in this regard. Prof. A.K. Sarkar, Dean, Instruction Division, in his concluding address appreciated the efforts put forth by the existing NGO's and suggested that local NGO's should be encouraged, as only they can better understand the local problems of the people.

### Management Development Programme for Senior and Chief Managers of Bank of Rajasthan (1-3 May 2009)



A three-day Management Development Programme for the Senior and Chief Managers of Bank of Rajasthan was organized by the Management Group of BITS, Pilani. Prof. Anil Bhat, Group Leader, Management welcomed the guests and the participants and gave a brief overview of the programme. Prof. G. Raghurama, Deputy Director (Academic), BITS, Pilani, in his inaugural address congratulated the management of the Bank for showing confidence in BITS, Pilani in organizing such programmes. Prof. R.N. Saha Dean, EDD in



his brief address said that this programme was the first step towards a long journey of excellence. Prof. Arya Kumar, Group Leader, Economics and Finance, delivered the vote of thanks. A total of 28 senior managers of Bank of Rajasthan from across the country participated in this programme. The faculty members of the Management Group of the Institute acted as resource persons in this programme. This was the third programme organized by the Institute for the managers of Bank of Rajasthan. The earlier two programmes were held in 2004 and 2005 respectively.

### Work Integrated Skills Development Program (16 April 2009)

On 16 April 2009, nine trainees of the Work Integrated Skills Development Program in Library Operations and Workshop Operations presented

their project reports in the presence of Vice Chancellor, Deputy Directors and the Course Instructors. While the program on Library Operations covered all library services, the program on Workshop Operations covered areas such as Refrigeration and Air conditioning, Storekeeping, Electricals and Fitting and Welding.

### Intensive Teaching Workshop for BRCM College faculty (18-23 July, 2009)

A six-day Intensive Teaching Workshop (ITW) was organized during 18-23 July, 2009 by BITS, Pilani for the faculty of BRCM College of Engineering and Technology, Bahal, Haryana. Fifteen faculty members from 4 disciplines participated in the workshop. The workshop aimed at training faculty members in effective teaching methods, interaction



between teacher and students, use of supporting material, body language and presentation skills. Group discussions, laboratory visits and self-evaluation with the help of video recordings were some of the other key features of the ITW. Prof. L.K. Maheshwari, Vice Chancellor, inaugurated the ITW. Prof. S. Ray Chaudhuri, Principal, BRCM, Bahal and Prof. R.K. Mittal, Deputy Director (Administration) addressed the gathering. Prof. Mittal also presided over the valedictory function. The workshop was guided by Prof. A.K. Sarkar, Dean, Instruction Division and was coordinated by Dr. Subhash Karbelkar.

### Academic Development Programme for HZL

An Academic Development Programme in Basic Process Engineering was conducted for



the employees of Hindustan Zinc Limited in four consecutive batches during the last semester. 58 employees in the first batch (7 January to 3 February), 61 employees in the second batch (4 February to 3 March), 61 employees in the third batch (14 March to 10 April) and 57 employees in the fourth batch (29 June to 24 July) were trained. In all 237 employees were trained in Computer Applications, Chemical Engineering, Communication Skills, Engineering Measurements, Process Safety and Health, Electrical Machines, Management and Financial Accounting, Process Synthesis Principles, Chemistry, Engineering Materials, Maintenance Management and Workshop Practice.

### Summer Science Workshop on Science, Imagination and Discovery (11-18 May, 2009)

BITS and CEERI jointly organized an 8-day Summer Science Workshop on Science, Imagination and Discovery for middle and senior school students. The workshop was inspired by the tremendous success of SID-2007 and SID-2008. The workshop was held from 11 to 18 May at BITS, Pilani with an aim to inspire young minds towards science with the theme of the year being "Creativity". The workshop



was supported by CSIR. The workshop attracted enthusiastic participation of 75 school children from classes VII to XI. The workshop included sessions on a variety of subjects like basic sciences, management, pharmacy, biology, mathematics, physics and other upcoming applied technologies.

SID 2009 started with a welcome address by Dr. Suman Kapur, Unit Chief, CWIRU, BITS. This was followed by the experience sharing by our

eminent guests Dr. Chandrashekhar, Director, CEERI and Dr. G. Raghurama, Deputy Director (Academic), BITS. Both of them elaborated the need of science in our life and also highlighted the importance of keen observation, imagination and experimental learning in identifying the underlying mysteries of nature.

The workshop had a series of multidisciplinary lectures delivered by both the scientists from CEERI and the faculty from BITS, Pilani. SID-2009 participants had sessions with 5 BITS students, who shared their experience of landmark achievements in life, such as topping BITSAT, Meeting the President of India, winning global laurels such as Google prodigy, etc.

While concluding the 8 day workshop Dr. V.K Dube, Deputy Director, HRD and Public Relations, CEERI and co-coordinator SID-2009, suggested to the heads of both the Institutes that such workshops should be organized at the national level and more events should be patronized. Prof. L.K. Maheshwari, Vice Chancellor, BITS, Pilani, emphasized the need for such workshops as they make students more confident, independent and sensitive to diversities in science and culture. Prizes were given away to the winners of various competitions held during the workshop. Overall the event was a grand success with students demanding for a longer workshop.

### National Science Day (28 February 2009)

Like previous years the National Science Day commemorating the remarkable achievement of the noted scientist Sir C.V. Raman was organized. Coordinated by a team comprising the faculty members of the Science and Technology group and the students of various science associations. The main events of the Science Day celebrations included: A science quiz competition for the students of local schools, lectures on topics of popular science; and two competitions for B.I.T.S. students namely, Science Quiz and Treasure Hunt.

The quiz session, was followed by two lectures on popular science by faculty members of the institute. The topics were: *Raman Effect*; *Serendipity*



(*Accidental Discoveries*) delivered by Dr. V. Manjula Devi and Dr. Bharti Khungar, respectively. Prof. L.K. Maheshwari, Vice Chancellor, BITS, Pilani, addressed the gathering and Prof. G. Raghurama, Deputy Director (Academic), gave away the prizes for the different events. Prof. R. N. Saha, Dean, E.D.D. and FD-III proposed the vote of thanks.

#### **Founder's Day (31 January 2009)**

The Institute celebrated the 45th Founder's Day on 31 January 2009 by organizing various activities. The programme started with a floral tribute to the Founder Chairman late Shri G.D. Birla. Students and the staff gathered near Shri G.D. Birla's statue to pay their reverence to the founder of this institute. Thyagaraja Aradhana was performed by Ragamalika in the morning and a cultural programme was organized by various regional associations in the evening. During the cultural



programme, Prof. L.K. Maheshwari felicitated six supporting staff members of the institute with the Best Performance Awards of the year 2007-08. The awardees were Mr. Bahadur Singh Jangir (E.S.D.), Mr. Ram Briksha (Library), Mr. Banwari Lal (CWIRU), Ms. Kiran Kirodiwal (SWD), Mr. Sajjan Kumar (VFAST) and Mr. Bhagwana Ram (CAHU). This year one special award was given to Mr. Rohitash Singh (PRU) for vigilance on duty.

#### **World Health Day (7 April 2009)**

Community Welfare and International Relations Unit (CWIRU) organized a 'Walk for Health' on 7 April 2009 on the occasion of 'World Health day'. BITS Community including faculty, students and family members enthusiastically participated in the walk. Prof. L.K. Maheshwari, Vice Chancellor, BITS, Pilani inspired around 75 participants by leading the walk himself.

#### **Basant Book Festival, (25 February - 8 March, 2009)**

Prof. R.K. Mittal, Deputy Director (Administration), inaugurated the Basant Book Festival at Akshay Supermarket on 25 February 2009 which continued till 8 March 2009. Over 4000 new books on the subjects such as Fiction, Management, Biography, Travel, Social Sciences, Management and Children's Books were made available at the festival for exhibition and sale. There was a special discount of 20% on all books during the sale. Books from

various publishers including Penguin, Harper Collins, Macmillan, Permanent Black, Academic Foundation, Rupa & Co, Random House, Picador, etc. were displayed at the Book Festival.

#### **Prof. B.M. Mithal Memorial Lecture (9 January, 2009)**

Professor B.M. Mithal Memorial lecture and Gold Medal award ceremony for the Best B. Pharmacy Graduate and M. Pharmacy Graduate for the academic years 2007 and 2008 were jointly



organized by the Pharmaceutical Society of BITS, Pilani and Prof. B.M. Mithal Endowment Trust at BITS, Pilani on 9 January 2009. Prof. R. Mahesh, Group Leader of the Pharmacy Group gave the welcome address and explained the criteria for selection for the award of the Gold Medals.



The Chief Guest, Prof. L.K. Maheshwari, Vice-Chancellor BITS, Pilani highlighted the salient contributions made by Prof. B.M. Mithal during his 50 years of service at the Institute in various capacities and his contributions to the development of pharmacy curriculum, at the national level. Prof. R.N. Saha, Dean, EDD and Faculty Division III and Secretary of the Prof. B.M. Mithal Endowment Trust introduced the guest of honour and speaker for the function, Prof. S.K. Kulkarni, Professor of Pharmacology and Dean, Institute of Pharmaceutical Sciences, Punjab University, Chandigarh. He delivered the lecture on the topic "Discovering Drugs from natural Sources: Issues and Challenges" which was highly appreciated by the audience present on this occasion.

The two gold medals in the memory of Prof. B.M. Mithal for the year 2007 and 2008 were awarded to Ms. Y. Nageeswari and Ms. Sriharita C., by Mrs. Mithal. Two gold medals were also awarded to the best M.Pharm. graduates, Mr. Lajvinder Kumar for

the year 2007 and Mr. Varun Jain for 2008 by Prof. L.K. Maheshwari. Mr. Darshan Saha, Vice- President of the BITS Pharmaceutical Society, delivered the vote of thanks.

## DISTINGUISHED LECTURES AT BITS PILANI

| SPEAKER                            | DESIGNATION  | TOPIC   | DATE  |
|------------------------------------|--|---|---|
| Prof. N.K. Lohiya                  | Head, Physical Chemistry Div., NCL, Pune & Adj. Prof., IISER, Pune                             | Theoretical and Computational Chemistry: An Integrated Tool for Chemical Structure, Reactivity and Modeling   | 12 January 2009   |
| Dr. K. Vijayakumar                 | Former Prof. & Head, Dept. of Industrial Engineering and Management, IIT, Kharagpur            | Modelling and Policy Analysis Using System Dynamics   | 13 January 2009   |
| Swami Sarvottamanandaji            | Dean of Research, RK Mission Vivekananda Univ.   | Spirituality and Education  | 24 January 2009   |
| Mr. Dharam Kumar                   | Head, AID India Bihar Chapter  | Empowerment of Youth at Grassroots Level  | 26 January 2009   |
| Dr. Asit Kumar Chakraborti         | Prof. & Head, Dept. of Medicinal Chemistry, NIPER  | Sustainable Chemistry Development: How to address in Academic Research  | 27 January 2009   |
| Mr. Bhaskar Roy                    | Sr. Assistant Editor, The Times of India, Delhi  | Journalism- New Realities and Challenges  | 1 February 2009   |
| Dr. Nirbhay Kumar                  | Dept. of Molecular Microbiology and Immunology, Johns Hopkins University, Baltimore, USA       | Vaccine Approaches in Malaria   | 23 February 2009  |
| Mr. Suresh Sharma                  | Adjunct Faculty, BITS, Pilani  | New World of Global Innovation-24/7 Knowledge Factory   | 4 March 2009  |
| Mr. Kris Ramachandran              | Ex-CEO, Philips India Ltd.   | Changes in Business World: Implications   | 5 March 2009  |
| Swami Anubhavananda                | Founder, Satbhavana Trust and Visiting Faculty, BITS, Pilani                                   | Hamesha Prasannachit Kaise Raho Self Management with Happiness Workshop for Administrators and Faculty members  | 7 March 2009<br>9 March 2009<br>10 March 2009                                     |
| Dr. K. A. Suri                     | Director Grade Scientist, IIIM, Jammu  | Standardization of Herbal Drugs Based on Analytical Techniques  | 13 March 2009   |
| Dr. Sudha Sivram and Dr. Arjun Roy | Johns Hopkins Bloomberg School of Public Health, USA<br>Ranbaxy Research Laboratories, Gurgaon | Epidemiological Principles in Public Health<br>Research Methods in Public Health<br>Design and Development of a Public health Intervention<br>Statistical Considerations in Clinical Trials<br>Clinical Data Management | 15 March 2009<br>16 March 2009<br>17 March 2009<br>15 March 2009<br>16 March 2009 |
| Prof. A. N. Nagappa                | Pharma Management Dept., MCOPS, Manipal University, Manipal                                    | Emerging Opportunities for Community Pharmacists in India   | 18 March 2009   |
| Dr. Devendra (Davy) S. Kalonia     | Associate Prof. of Pharmaceutics, University of Connecticut                                    | Application of Quartz Crystal Rheology Measurements in Analyzing Protein-Protein interactions in High Protein Concentration Solutions   | 21 March 2009   |
| Dr. A. R. Phani                    | Director, Nano Research for Advanced materials Technologies (Nano-RAM), Bangalore              | Bio-Nanomaterials for Different Industrial Applications   | 28 March 2009   |
| Mr. P. Chandrakanth Sharma         | Chief General Manager (HRD) Rtd., Singareni Collieries Co. Ltd, Kothagudem, AP                 | Human Resource Development  | 6 April 2009  |
| Dr. G. Sekar                       | Dept. of Chemistry, IIT Chennai, Chennai   | Nature Inspired Chiral Catalysis for Asymmetric Synthesis   | 25 April 2009   |



## VISITS BY FACULTY: ENRICHING THE LEARNING EXPERIENCE

### International Visits

**Prof. L.K. Maheshwari**, Vice Chancellor, BITS, Pilani, visited US and Canada during 20 April to 18 May 2009. Apart from meeting many alumni members, he addressed the Alumni network through web conference. He also visited the Carleton School of Business in Ottawa, Canada.

**Prof. G. Raghurama**, Deputy Director (Academic) and Prof. M.B. Srinivas from Hyderabad campus attended the 'Microsoft Faculty Summit 2009' at Microsoft headquarters in Redmond, USA during 13 - 14 July 2009. They were invited by Microsoft to attend the summit which had a representation of more than 300 faculty from all over the world. Prof. Raghurama was in US till 26 July 2009. During his visit he met a large number of BITS alumni at



Seattle, San Francisco, Washington DC and Boston and discussed the salient features of the BITS 'Vision 2020: Mission 2012' project. The visit was coordinated and the meetings were organised by the BITSAA International and other alumni chapters in US. The alumni showed keen interest in the Vision 2020 initiatives of BITS and promised the whole hearted support. He also visited some of the US universities including Stanford, University of Maryland, USUHS, MIT, Boston University and Northeastern University. Prof. Raghurama also went to see some of the advanced Laboratories and facilities at these universities and interacted with senior professors and discussed possible collaborations and exchanges.

**Prof. R.K. Mittal**, Deputy Director (Administration) delivered the keynote address on *Powering Nanorobots* at the 4th International Conference on Autonomous Robots and Agents ICARA 2009 organized by the Massey University, New Zealand which took place at James Cook Hotel Grand Chancellor, Wellington during 10-12 February 2009. He also led the AcYut-II, *Michelangelo*, and Cyborg teams which won medals at the 2009 RoboGames, held in San Francisco, USA from 8 to 18 June 2009.

**Dr. Nirupama Prakash**, Unit Chief, Women Studies and Societal Development was invited to present a paper at the International Conference on *Mediation and Conflict: Translation and Culture in a Global Context* organized by International Association for Translation and Intercultural Studies (IATIS) at Monash University, Melbourne, Australia during 7-10 July, 2009.



**Mr. Ashutosh Shrivastava**, EEE Group visited Tokyo Institute for Technology under DST-JSPS project -DST/INT/JAPIP-50/08 program (Indo-Japan) to conduct Joint Research Project (Dec-Jan.2009) entitled Nano-Scale MOSFET's-Scalability Issues and Potential Dielectrics.

**Dr. Rajesh Mehrotra** was invited to Kyoto University as a visiting scientist during 15 December 2008-15 January 2009. His visit was sponsored by Ministry of Science and Technology, Japan (JST).

**Dr. Geetha B.**, Assistant Professor, Languages Group attended the American Comparative Literature Association Conference 2009 held at Harvard University in Cambridge, Massachusetts during March 26-29, 2009 and presented a paper on *Girish Karnad's Play Hayavadana: A Dialogue between the Local Cultures and Universal Themes*.

**Dr. Navneet Goyal**, Assistant Unit Chief, CAHU attended and presented a paper on *An Efficient Density Based Incremental Clustering Algorithm in Data Warehousing Environment* at the International Conference on Knowledge Discovery 2009 (ICKD 2009) in Manila, Philippines during 6-9 June 2009.

**Dr. N.N. Sharma**, Assistant Dean, ARCD was invited to attend the XXXVII International Summer School on Advanced Problems in Mechanics (APM) 2009 organized by the Institute of Problems in the Mechanical Engineering, Russian Academy of Science (IPME-RAS) at St. Petersburg, Russia during 30 June to 5 July 2009.

**Dr. S.B. Singh**, Group Leader, Civil Engineering Group visited UK (University of Dundee, and Leicester) for series of UK-India Education Research Initiatives (UKIERI) meetings during 5 -11 July, 2009.

**Dr. Shivi Agarwal** participated and presented the research paper entitled *Measuring the Efficiency of Public Transport Sector of India: An Application of DEA* at 7th International Conference on Data Envelopment Analysis, Fox School of Business, Temple University, Philadelphia, USA during 10 - 12 July, 2009.

## INVITED LECTURES BY FACULTY

**Prof. B.V. Babu**, Dean, EHD was invited as a distinguished speaker, Indo-US Workshop on Materials Design: Measurement, Modeling and Informatics, organized jointly by School of Materials Science and Engineering, Bengal Engineering and Science University (BESU)-Shibpur and Combinatorial Sciences and Materials Informatics Collaboratory (CoSMIC-IMI), Iowa State University-USA with the support of Tata Steel-Jamshedpur and Stanley Foundation-USA, Kolkata, from 5 to 7 January, 2009. He also delivered invited lectures on Modeling and Simulation, Traditional Optimization Techniques and their Limitations, Population-based Search Algorithms for Optimization, and Energy Integration Analysis. Prof. Babu also conducted a workshop on Application of Advanced Tools/Techniques in Research at BITS, Pilani Goa Campus, Goa, on March 6 and 7, 2009.

**Dr. M. Ishwara Bhat**, Librarian, delivered an invited lecture on *Increasing the Discovery and Use of e-resources in University Libraries* at the International Conference on E-Content Management Systems: Challenges and Strategies held at Pondicherry, held during 25 - 29 February, 2009.

**Prof. Meenakshi Raman**, Unit Chief, PMRU, delivered a plenary talk-cum-practice session on *Developing Conversation and Brainstorming Skills* at the ELTAI 2nd national and 6th Vidarbha Regional Conference at Dharampeth College, Nagpur, held during 10 to 11 January, 2009. She delivered a talk on *Speaking Intelligible English* at NUVA Institute of Technology, Nagpur on 10 January 2009. Dr. Raman conducted 2 two-day workshops on (i) *Acing the Job Interviews* at BITS Pilani Goa Campus during 12-13 January 2009 and (ii) *Interview and Presentation Strategies* at the Invertis Group of Institutions, Bareilly, UP during 19-20 February 2009. She delivered the inaugural address and a plenary talk on *Soft Skills: Shifting Paradigms and Emerging Trends in Technical Education* at RC Patel Institute of Technology, Shirpur, Maharashtra, during 14 to 15 March, 2009.

**Prof. Nirupama Prakash**, Unit Chief, Women Studies and Societal Development was invited to make a presentation on *Women Political*

*Participation: Issues & Challenges* and to give the concluding remarks at the Valedictory function of the National Seminar on Women and Political Participation In India-Democratic System-Researching The Past and Restructuring The Future, organized by Department of Policy Sciences, National Law University, Jodhpur, during 6 to 7 February, 2009. She was also invited as a resource person to make a presentation on *Information Communication Technologies and Community Based Approach to Address Gender Based Violence and Health Issues* at the International Conference on Gender-based Violence and Sexual and Reproductive Health, organized by National Institute of Research & Reproductive Health (ICMR) held during 15 to 18 February 2009 in Mumbai. She was invited as a resource person to make a presentation on *Religion and Gender- A Critical Analysis* at the Seminar on Women and Religion organized by Centre for Women Studies, Shri Lal Bahadur Shastri Sanskrit Vidyapeeth, New Delhi, during February 26 to 27, 2009. She was invited to participate in the Workshop on the *Role of Women Studies in Promoting Educational Participation of Women* organized by The Department of Inclusive Education at National University of Educational Planning and Administration (NUEPA) during 13 to 14 March, 2009. Prof. Nirupama Prakash was also invited to participate in the UGC Capacity Building, Sensitivity, Awareness, Motivation Workshop for Women Managers in Higher Education held at IIT Roorkee from May 18-23, 2009.

**Dr. Suman Kapoor**, Unit Chief, Community Welfare and International Relations delivered an invited talk on *Ancient to Genomics in summer school on Recent Advances in Molecular biology and Pharmaceutical Biotechnology* held at MAHE, Manipal in June 2009.

**Dr. Rahul Banerjee**, Unit Chief, Software Development and Educational Technology, was invited by ERNET (Govt. of India), IUCAA-Pune and VECC-Kolkata for delivering expert lectures on IPv6 under a European Commission and Govt. of India co-funded project 6Choice.

**Dr. Sangeeta Sharma**, Group Leader, Languages, conducted a half-day workshop on *Effective Presentation* for Seedling Institute of Management-National University, Jaipur on 12 January 2009. She was invited as the resource person to deliver a talk on *Nonverbal cues in Business Communication* for the Faculty training programme for Development of Soft Skills at Shobasariya Engineering College, Sikar on 2 March 2009. She was invited for special lecture on *Effective Communication and Writing Research Report* in Staff Development Programme on Improving Management Teaching Effectiveness

at CIPS, Jaipur on 27-28 March 2009. She also conducted a two-day workshop on *Business Communication and Presentation Skills* at NADP, Nagpur for IOFS Probationers Training Course on 30-31 March 2009 and a three-day workshop on *Interpersonal Communication* at Ordinance Factory Institute of Learning at Ishapur during 22 - 24 July 2009.

**Dr. Balram Dubey**, Group Leader, Mathematics, delivered an invited talk on *Mathematical Models to Study the Dynamics of Interacting Biological Species* at a National Conference on Mathematical Modelling and Simulation jointly organized by Jiwaji University, Gwalior and ABV - IITM, Gwalior during January 9 - 11, 2009.

**Dr. Pushp Lata** was invited to conduct a workshop on *Group Discussion* in the Kedarnath Agrawal Institute of Management, Charkhi Dadri on 25 March 2009 and another workshop on *Placement Skills* in the Department of English, Choudhary Devi Lal University, Sirsa, Haryana on 30 March 2009.

**Dr. Sanjiv Kumar Choudhary** delivered the valedictory address on *Screen Adaptations of Indian Fiction: Issues and Challenges* at the National Level Seminar on Screen Adaptations of Indian Fiction organized by the English Department of Katruwar Arts, Ratanlal Kabra Science College and B.R. Mantra Commerce College, Manwath, Parbhani (Maharashtra) on 7 March 2009. He also delivered two guest lectures on Instructional Methods and Media at the AICTE sponsored 2 week Faculty Development Program entitled 'Role of Modern Teaching Tools and Aids in Technical Education' organized at JCDM Engineering College, Sirsa, Haryana on 8 July 2009.

**Dr. G. Venkiteswaran** delivered a talk on *Challenges in Operations Research* at Valluvar College of Arts and Science, Karur on 8 January 2009. He delivered another talk on *Open Source Software - Installation and Administration* on 11 February 2009 at the same college. He delivered a series of talks on *Applications of Linear Algebra and Simulation of Probability Models* at BITS, Pilani - Hyderabad Campus during 20-24 April 2009.

**Mr. Ram Shukla** conducted a workshop on *Improving Soft Skills of Faculty* on 2 March 2009 at Shobhasaria Engineering College, Sikar, Rajasthan. The workshop was conducted under "Faculty Training Programme in Development of Soft Skills" sponsored by AICTE, New Delhi.

**Dr. Inamur R. Laskar** was invited to deliver a talk at CEERI on the topic *Organic Semiconductors for Light Emitting Diodes* on 16 March 2009. He also delivered another talk entitled *Triplet Emitters towards Organic Light Emitting Diodes* at SAMTEL centre at IIT, Kanpur on 14 July 2009.

**Dr. P. Srinivasan** delivered a special lecture on

*Indian Power Scenario and Opportunities for Engineers* to III and IV year B.E. (Mechanical and EEE) students of M. Kumarasamy College of Engineering, Thalavapalayam, Karur on July 9, 2009. He also delivered an invited lecture on *Productivity Improvement of Manufacturing Processes by Heat Transfer Analysis* at AICTE sponsored programme on *Recent Development in Manufacturing Technology* conducted by MAM College of Engineering and Technology, Siruganur, Trichy on June 3, 2009.

**Dr. A.K. Digalwar** delivered an expert lecture on *Changing Basis of Performance Measurement in AICTE-ISTE* on 2 June 2009 in a short term training programme on Flexible Manufacturing System, organized by Mechanical Engineering Department of Jawaharlal Darda Institute of Engineering and Technology, Yavatmal, during 1 - 5 June 2009.

**Dr. S.K. Sahoo** delivered a lecture on *Chip Focus* during a Seminar on VLSI Design and Embedded System at Oriental Institute of Science and Technology, Bhopal on 7 May 2009.

**Dr. C.B. Gupta** delivered an expert lecture on *Applications of Mathematics* at LCRT College of Education, Panipat on 3 January 2009. He also delivered a talk on *Applications of Operations Research in Engineering and Technology* in Shobhasaria College of Engineering, Sikar on 13 February 2009 and another on *Applications of Operations Research in Management, Engineering and Technology in S.B.B. Institute of Technology, Meerut* on 13 February 2009. Prof. Gupta also delivered a talk on *Operations Research: An Overview* at M.M. College, Fatehabad on 21 March 2009.

## ACHIEVEMENTS

**Prof. R.N. Saha**, Dean, EDD and Dr. Murali Raman have been granted a patent for an invention entitled *Stable Controlled Release Pharmaceutical Composition Comparising Acexlofenac* for the term of 20 years with the provisions of the Patents Act, 1970.

**Prof. S.B. Singh**, Group Leader, Civil Engineering, was Honored as Chief Guest at 3<sup>rd</sup> National



Conference on Recent Trends in Concrete Composites for Structural Systems (RTCCSS-09), held at Kongu Engineering College, Erode, Tamilnadu, India, April 03, 2009.

**Mayank Kamath** (2007H103045) and **Ankit Jindal** (2008H103032) earned the first prize worth Rs. 3.5 Lakh at the 2009 Google Product Prodigy Competition.

**Ankit Mittal** (2005A4PS304) and **Dhruv Malik** (2006A3PS442) were selected to attend the prestigious iFEST innovation camp in USA during 10 July to 3 August 2009.

**Poonam Daga** (2007A1PS424), **Antonio Fernandez** (2007A3PS182), **Abhishek Dutta** (2007A8PS282), **Aastha Mehta** (2007A7PS044) and **Vishva Parekh** (2007A7PS312) were shortlisted for the prestigious Goldman Sachs Leadership Program. Of these, Aastha Mehta and Abhishek Datta were selected for final round to visit Goldman Sachs Global Leadership Institute, New York, in July 2009.

**Raghav Mimani** (2007A1PS383) won the First Prize in an online Essay Writing Competition organized by the National Knowledge Commission headed by Sam Pitroda. He visited New Delhi to meet Sam Pitroda and collected his prize of Rs. 10,000.

**Shashank Sahu** (2007A8PS257P), **Rahul Raushan** (2007B3A8567), and **Ashay Vedasen** (2007A3PS149) won the RoBo-eX event at Techkriti 2009, the annual all India technical festival organized by IIT Kanpur.

**Anurag Dutta** (2006A7PS010) has been awarded a two month internship at National Geographic, Hong Kong, during May-June 2009. He has been declared first runner-up in the prestigious Habitat Young Visionary Award.

**Uttam Grandhi** (2005B5A4710), **Ravi Shankar Ippili** (2005B3A4637), **Venkat Karthik Pannala** (2005B3A8570), **Ravi Kiran Atchuta** (2005B1A4820) and **Srikanth Ramanolla** (2005B4A4723) won the first position for their indigenously developed robot called Wall-E, at the IIT Mumbai Technical Festival.

**Sanjot Malhi** (Alumnus) was selected for Yale School of Management MBA Programme.

The paper entitled *A New Microcontroller-Based MPPT Algorithm for Photovoltaic Applications* co-authored by **Ahmad Zbeeb**, **Vijay Devabhaktuni**, **Abdel Sebak**, and **L.K. Maheshwari** was adjudged as the Student Best Paper (Energy) by the International Conference on Energy & Environment

(EnviroEnergy) 2009, held at the Taj, Chandigarh, during 19-21 March 2009.

**M. Harsha Vardhan** (2006A7PS156) presently a third year Computer Science student was selected to attend the International Student Festival in Trondheim (ISFiT), 2009 in Norway. He also secured a grant of US\$10,000 as a part of the Social Entrepreneurship Contest 2009 of Goldman Sachs Global Leaders Program for his proposal to start a community development project in a group of 9 villages in Andhra Pradesh.

**Ms. Supriya Vadlamani**, who recently graduated in Computer Science from BITS, Pilani received the Second Google India Women in Engineering Award announced at the Google India's Hyderabad office.

Two AcYut teams consisting of seven students: **Samay Kohli**, **Sushma Vallabhaneni**, **Mohammad Ariz**, **Akash Gupta**, **Uttam Gandhi**,



**Ravi Shankar and Venkat Karthik** created AcYut-II, Michelangelo, and Cyborg and won one silver and two bronze medals at the 2009 RoboGames, held in San Francisco, USA from 8 to



18 June 2009. The three medal winners are India's first at the world's biggest open robot competition, which witnessed over 250 teams participating from 28 different countries.

## SIGNIFICANT PROJECTS

| Principal Coordinator & Name of the Group | Title of Project  | Funding Agency, Amount & Duration  |
|---|---|--|
| Dr. N.N Sharma, Mechanical                | Software Tools for MEMS Design (CONSOL, Intellisuite and Conventorware)   | National Program on Micro and Smart Systems (NPMASS) coordinated by Aeronautical Development Agency (ADA),<br>The cost of the software was Rupees 75 Lakh. |
| Prof. B.V. Babu, Chemical                 | Study on Adsorption Process for the Removal of Metal Ions from Waste Water and Volatile Organic Compounds from Air by using Suitable Absorbents | UGC Major Research Grant<br>7.3 Lakh; 2007-10  |
| Prof Arya Kumar, Economics                | Study on Strategies to Meet Manpower Requirements for Power Sector up to 2020   | NSTMIS, DST, Government of India<br>9.6 Lakh; 2 years  |
| Dr. Manjuladevi. V., Physics              | Studies on Electro-optic switching of liquid crystals doped with carbon nanotubes   | DST under SERC Fast Track scheme;<br>13 Lakh; 3 years  |
| Dr. S. K. Choudhary, Languages            | Rickshaw Project  | IFRTD, London<br>1100 Pounds; 2 years  |
| Jha P.N, Biology                          | Molecular Characterization of Diazotrophic Plant growth-promoting Endophytic Bacteria Isolated from Arid Desert of Rajasthan                    | Dept. of Science and Technology, New, Delhi,<br>2 Lakh; 3 Years  |

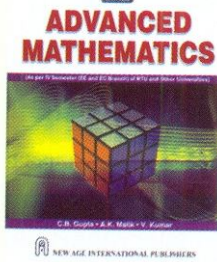
**Faculty members from various disciplines have been appointed as members of national and international advisory committees/ acted as reviewers for books/papers published in journals of national and international repute.**

| S.No. | Name         | GROUP    | JOURNAL / MEMBER DETAILS  |
|-------|--------------|----------|---|
| 1.    | Dr. B.V.Babu | Chemical | <p><i>Reviewed chapters for the book 'Evolutionary Computation in Expensive Optimization Problem', Springer, March, 2009.</i></p> <p><i>Editorial board member of Energy Education Science and Technology, Research Journal of Chemistry and Environment, International Journal of Computer, Mathematical Sciences and Applications, Journal on Future Engineering and Technology, International Journal of Applied Evolutionary Computation.</i></p> <p><i>Reviewed 30 articles which were published in 21 International Journals such as Environmental Engineering Science (Mary Ann Liebert Inc.), IEEE Transactions on Systems Man and Cybernetics-B (IEEE), European Journal of Operational Research (Elsevier), Materials and Manufacturing Processes (Taylor &amp; Francis), Chemical Engineering Science (Elsevier), Journal of Taiwan Institute of Chemical Engineers (Elsevier), Transactions on Evolutionary Computation (IEEE), AIChE Journal (American Institute of Chemical Engineers), Journal of Future Engineering &amp; Technology, Energy and Fuels (ACS), International Journal of Physical Sciences (Academic), BioResources (NCSU), Industrial &amp; Engineering Chemistry Research (ACS), Environmental Science &amp; Technology (ACS), Computers &amp; Chemical Engineering (Elsevier), African Journal of Environmental Science and Technology (Academic), Biofuels, Bioproducts &amp; Biorefining (Wiley), Chemical Industry &amp; Chemical Engineering Quarterly (AChE), Fuel Processing Technology (Elsevier), International Journal of Hydrogen Energy (Elsevier), and Journal of Environmental Management (Elsevier).</i></p> |

|    |                       |                        |  |
|----|-----------------------|------------------------|--|
|    |                       |                        | <p>Contributed a chapter for the book <i>Hybrid Multi-objective Differential Evolution (H-MODE) for Multi-objective Optimization</i>. In Computational Intelligence in Expensive Optimization Problems, Edited by Chi-Keong Yoel and Chi-Keong GOH, Springer-Verlag, Germany (2009).</p> <p>Appointed as an International program committee member for the 4th Indian International Conference on Artificial Intelligence (IICAL-2009), Tumkur, India, December 16-18, 2009. He was also appointed Member, Advisory Committee, National Workshop on Water Conservation and Sustainable Development of Society (WCSDS-2009), jointly organized by MBM Engineering College, Jai Narain Vyas University, Jodhpur &amp; Department of Environment, Government of Rajasthan, at MBM Engineering College, Jodhpur, March 15, 2009. He acted as an expert Member, Peer Team, National Assessment and Accreditation Council (NAAC), Bangalore for Maharaj Vijayaram Gajapathi Raj (MVGR) College of Engineering, Vizianagaram, April 20-22, 2009 and Bannari Amman Institute of Technology (BIT), Sathyamangalam, Coimbatore, June 5-7, 2009. He was also a member, Peer Review Committee, The Natural Sciences and Engineering Research Council of Canada (NSERC), Canada. He also acted as an expert member, Research group evaluation and selection, King Fahd University of Petroleum &amp; Minerals (KFUPM), Dhahran, Saudi Arabia.</p> |
| 2. | Dr. Suman Kapur       | Biology                | <p>Reviewed several papers for International journals such as Eye (Nature Publications), Molecular Biology Reports, USA, Addiction Biology, USA and for National journals such as IJBB, IJCB, Cell and Tissue Research, etc.</p> <p>Reviewed projects and Annual Reports for ICMR, DBT and DST, GOI, New Delhi, India</p> <p>Appointed a Member Jury, Young Scientist Ranbaxy Science Scholars-2009, Ranbaxy Science Foundation, New Delhi (India).</p> <p>Appointed a Member of Selection Committee, 2009 Commonwealth Scholarships, MHRD, GOI, New Delhi (India).</p> <p>Appointed a Member of Steering Committee for formulations of National guidelines on minimum standard of "Water" for disaster relief under the aegis of NDMA.</p> <p>Appointed a member of Steering Committee for formulations of National guidelines on minimum standard of sanitation for disaster relief under the aegis of NDMA.</p>   |
| 3. | Dr. A. K. Digalwar    | Mechanical Engineering | <p>Appointed an Editorial Board Member for <i>International Journal of Manufacturing Science and Management</i>, Serial Publications, New Delhi and also appointed as an Editorial Board Member for <i>International Journal of Manufacturing Systems</i>, Science Alert Publications, USA.</p> <p>Reviewed a paper for International Journal of <i>Financial Services Management and International Journal of Business in Emerging Market</i>, Inderscience Publishers Ltd.</p>   |
| 4. | Mr. Ashish M Gujrathi | Chemical Engineering   | <p>Reviewed two articles for Chemical Engineering Journal, Elsevier Publications and reviewed two books entitled <i>Introduction to Biochemical Engineering</i> by 'Rao, D. G.' and <i>Stoichiometry</i> 5th edition by Bhatt, B. I. and Thakore S. B. published by The McGraw-Hill Publication.</p> <p>Acted as an International review committee member of '2nd International Multi-Conference on Engineering and Technological Innovation: IMETI' 2009, 10 - 13 July, 2009 Orlando, Florida, USA.</p>   |
| 5. | Dr. Nirupama Prakash  | Humanistic Studies     | <p>Appointed as a Member of International Organizing Committee, <i>Asia Pacific Women's Conference Women, Peace and Security: Visions for a New World</i>, organized by Philippine Normal University (PNU) Manila, Philippines during 8-10 September 2009</p>  |

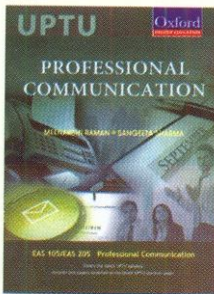
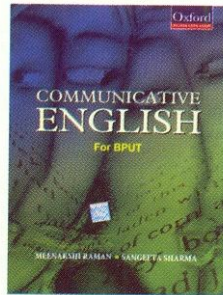
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| 6.  | Dr. Meenakshi Raman | Languages              | Reviewed two papers (i) ' <i>Do Permanent Pairs, Structured Tasks and Background Knowledge Lead to Interactive Pair Work in ESP Classes?</i> ' for IATEFL, UK, ESP-SIG Journal of Professional and Academic English; (ii) ' <i>Innovating Writing Centres and Online Writing Labs Outside North America</i> ' for Asian EFL journal, Australia; and a book ' <i>Insight into International English Language Testing System</i> ' for MacMillan Publishers India Ltd.   |
| 7.  | Dr. Balram Dubey    | Mathematics            | Reviewed four research papers for International Journals: (i) Ecological Modelling, (ii) Journal of Biological Systems, (iii) Nonlinear Analysis: Modelling and Control, and (iv) Mathematical and Computer Modelling.   |
| 8.  | Dr. Hari Om Bansal  | EEE                    | Reviewed a book on "Control Systems", for TMH Education India (Pvt) Ltd.   |
| 9.  | Dr. S.B. Singh      | Chemical               | Appointed the Vice-Chairman of CAFET Innova Technical Society CITS India Council, 2009.  |
| 10. | Dr. H.V. Manjunath  | EEE                    | Reviewed a paper for IET Renewable Energy (Journal), U.K.  |
| 11. | Dr. N. N. Sharma    | Mechanical Engineering | Appointed as an Associate Editor, International Journal of Smart Sensing & Intelligent Systems   |
| 12. | Dr. P. Srinivasan   | Mechanical Engineering | Reviewed a paper on <i>Experimental Investigations on the Microstructure and Mechanical Properties of Sinter-Forged Cu &amp; Mo-Alloyed Low Alloy Steels for Material Science and Engineering</i> , A Journal published by Elsevier science.   |
| 13. | Dr. Arya Kumar      | Management             | Reviewed more than 10 research papers for the journal entitled "Business Perspectives" brought out by BIMTECH, New Delhi.<br>Acted as an expert for the Economics Examination conducted by the Union Public Service Commission, New Delhi.   |
| 14. | Dr. Dilip K. Maiti  | Mathematics            | Reviewed a paper entitled <i>Interaction of Oscillatory flows with a pair of side-by-side cylinders</i> , Journal of Fluids and Structures, Elsevier.  |
| 15. | Dr. Sangeeta Sharma | Languages              | Reviewed a book entitled <i>Business Communication</i> , Tata McGraw Hill, January 2009.<br>Reviewed papers for <i>AIMS International Journal of Management</i> , Volume 3, Number 2, May 2009.  |
| 16. | Dr. Pushp Lata      | Languages              | Appointed as Content Developer for Distance Teaching Modules for M.Phil (English) students and contributed two units for the module on Romantics to Victorians, for Vardhman Mahaveer Open University, Kota.   |
| 17. | Mr. Sushil Kumar    | Chemical Engineering   | Reviewed a book entitled <i>Introduction to Chemical Engineering Thermodynamics</i> , Seventh Ed., McGraw Hill Higher Education (2005) by J.M. Smith, H.C. VanNess, M.M. Abbott.<br>Reviewed an original scientific paper of <i>Chemical and Biochemical Engineering Quarterly</i> , Editorial Office, Berislavićeva 6/I, HR-10000 Zagreb Croatia.   |
| 18. | Dr. Rahul Banerjee  | Computer Science       | Acted as a reviewer for the IEEE Transactions on Computers (IEEE, USA) and Journal of Programming and was appointed Editor and Reviewer for the <i>International Journal of Computer Networking and Distributed Systems (Germany)</i> . He was also appointed as a Referee for several international and national conferences and a Judge for Google PhD Forum at PerComp 2009, International Competitive Event for Researchers. He was also invited to work on PCs, TCs of five international conferences which included ICDCIT, ICIT, PerComp, IMSA round the world. |

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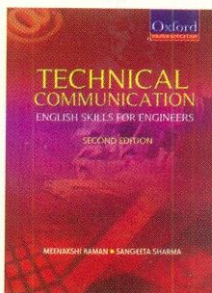
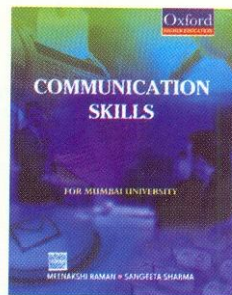
Advanced Mathematics, New Age International Publishers, 2009, C B Gupta, A K Malik, V Kumar

Communicative English, For BPUT, Oxford Higher Education, 2009, Meenakshi Raman and Sangeeta Sharma.



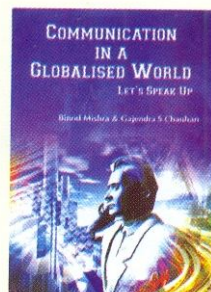
Professional Communication, For UPTU, Oxford Higher Education, 2009, Meenakshi Raman and Sangeeta Sharma.

Communication Skills, For Mumbai University, Oxford Higher Education, 2009, Meenakshi Raman and Sangeeta Sharma.



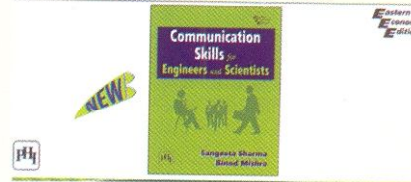
Technical Communication, 2nd Edition, English Skills for Engineers, Oxford Higher Education, 2009, Meenakshi Raman and Sangeeta Sharma.

Communication in a Globalised World, Authors Press, New Dehi, 2009, Binod Mishra and Gajendra S Chauhan.



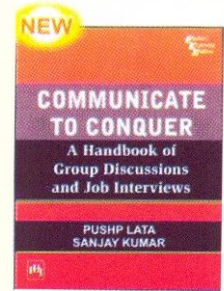
## Communication Skills for Engineers and Scientists

SANGEETA SHARMA • BINOD MISHRA



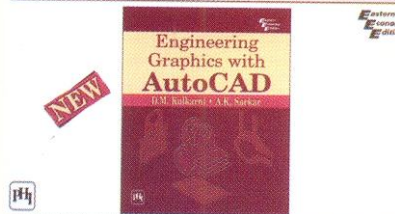
Communication Skills for Engineers and Scientists, PHI, 2009, Sangeeta Sharma and Binod Mishra.

Communicate to Conquer, PHI, 2009, Pushp Lata and Sanjay Kumar.



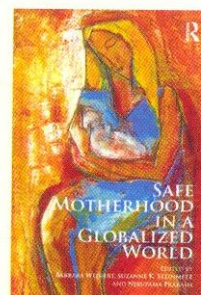
## Engineering Graphics with AutoCAD

D.M. KULKARNI • A.K. SARKAR



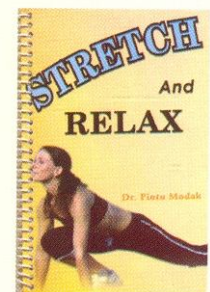
Engineering Graphics with AutoCAD, PHI, 2009, D.M. Kulkarni and A.K. Sarkar.

Pester Power Effect of advertising on children, An Initiative of Centurion Institute of Professional Studies, Jaipur, 2009, Sangeeta Sharma, J.P. Sharma, Raghuvir Singh.



Safe Motherhood in Globalized World, Routledge, London, 2009, Barbara Wejnert, Suzanne K Steinmetz and Nirupama Prakash.

Stretch and Relax, Khel Sahitya Kendra, New Delhi, 2009, Pintu Modak.





## JOINING HANDS

### MoU's

Sustaining the collaborative efforts, BITS signed the following MoUs with institutions in India and abroad:

- With State Health Society (SHS), Jaipur on 1 January 2009 to Promote Exchange of Human Resources, Staff and Students, Academic and Research Interactions.
- With Madras Medical Mission, Chennai on 27 January 2009 to Promote Academic and Research Interactions.
- With Frontier Lifeline Pvt. Ltd, Chennai, on 28 January 2009 to Promote Academic and Research Interactions.

## PROJECT EMBRYO

Last semester Embryo conducted 8 lectures in disciplines like Computer Science and Engineering, Computational Biology and Mathematics, Marketing, and issues regarding higher studies. Some of the technical glitches experienced in previous semester were very well taken care of as was evident by the remarkable feedback that was received about the technical quality. Prof. Padmanabhan Seshaiyer's lecture on "*Mathematical and Computational Modelling of Bio-inspired system*" was a big hit among students, giving them a feel for the research in the interdisciplinary area, a facet stressed in the BITS education system. Mr. Prem Talreja's lecture "From an Idea to Start-up" was again an immense success. Mr. Sudip Datta's lecture on "*Career Choices in Sales*" beautifully illustrated the nitty-gritty of sales dynamics and about how "*sales*" touches so many important aspects of our life. Mr Arun Maharajan, gave an overview about pursuing higher studies in Germany. Mr. Jai Natrajan's talk on "Computer Graphics" touched upon the nuances of animation and gaming as well as career opportunities in computer graphics. There were two lectures in the area of networking, one by Mr. Aman Shaikh and the other on "*Data Storage Techniques and Networks*" by Mr. Vasan. Both were very well received by the students and faculty of the institute.

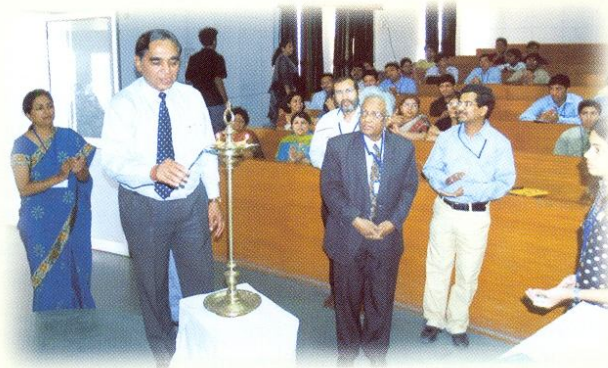
### BITSAA

BITSAA organized the farewell get-together for graduating students on April 17, 2009, which was attended by all graduating students and faculty members. Prof. L K Maheshwari, Patron BITSAA and the Vice-Chancellor, BITS and Prof. R K Mittal, Deputy Director (Administration) and President, BITSAA addressed the gathering of graduating students. Several senior officers of the Institute also addressed the gathering with their inspiring words



and nostalgic quotes. The graduating students also shared their memories with the gathering. BITSAA also organized a talk on "*New World of Global Innovation-24/7 Knowledge Factory*" by Mr. Suresh Kumar Sharma, B.E. (Hons.) (Mechanical) 1970-'75, on February 4, 2009.

### Center for Entrepreneurial Leadership



The Centre for Entrepreneurial Leadership under the Entrepreneurship Development and Intellectual Property Rights Unit of the Institute in collaboration with National Entrepreneurship Network and the Department of Science and Technology, Govt. of



India organized a TechBazaar on 23 March 2009 which was inaugurated by Prof. S. Venkateswaran, Professor Emeritus & Advisor and former Vice Chancellor, BITS, Pilani. The TechBazaar attracted a large number of young entrepreneurs. TechBazaar received 50 entries from BITS and outside Institutions across India. During the event the participating students demonstrated their business plans in various areas of science and technology

and these plans were evaluated by the experts. The plans selected in the final round were given awards. Business plans like ISPAT, Intellitech, Vidyut Shakti, LED Lighting Device, Electro Vault were the major attractions of this event. Mr. Rahul Chandra, Director-Investment Advisor, Helion Venture Partners, Gurgaon, Mr Phanindra, CEO, Redbus, Bangalore, Mr Manoj Vasudevan, CEO, Pilani BPO Pvt. Ltd, Pilani and Mr Kavikrut, CEO, Mobile Medics, Pilani were the distinguished speakers in the last session. Mr Sasi, CEO, Habits, Hyderabad had an on-line participation which was highly appreciated by students.

### Entrepreneurship Week (7- 15 February, 2009)

An Entrepreneurship Week was organized by the Centre for Entrepreneurial Leadership (CEL), BITS-Pilani during 7 - 15 February 2009. It was inaugurated by Prof. B.R. Natarajan, Dean, DLPD. The E-Week is celebrated every year across the country in 400 colleges and more than 2,00,000 students take part in this event. This year's theme for the week was "Go Green: The World is our Business". Advising the students on the attitude required by entrepreneurs to survive in the current scenario, Prof. Arya Kumar, Faculty Advisor of CEL, asked the students to "Think Big, Dream Big and Break New Frontiers." Professor Sunil Handa, alumnus of BITS, Pilani and presently a professor at IIM Ahmedabad, who has immense experience in the field of Social Entrepreneurship, also addressed the gathering. Mr. V.K. Desai, the founder of Tiny Tech Plans presently spearheading the social entrepreneurship movement in the country and Mr. Kavikrut, an alumnus of BITS-Pilani, also the founder of Mobile Medics also had a fruitful interaction with the students. The Entrepreneurship week hosted a variety of events, including a marathon to show commitment for a cleaner and greener environment.

## INTERFACE 2009

The 32nd edition of the annual event of the management association Interface 2009 themed "Parivartan-Angelic Change" was organized during March 6 - 8, 2009. Honorable Vice Chancellor, Prof. L.K. Maheshwari inaugurated the festival. The inauguration was graced by the presence of esteemed members of the Institute as well as few of the leading executives from the corporate world. Prof. R.K. Mittal, Deputy Director (Administration) and Dean, ARCD along with special guest Mr. Sudipta Gautam, Vice - President and Chief Operating Officer of SAIC India Pvt Ltd, Noida, guest of honour Mr. Mukhesh Sharma, CEO of QA Infotech, key note speaker Mr. Krish Ramachandran, Ex-CEO, Philips India Ltd & Panelist for the panel discussion and Mrs. Shasmitha Choudary, Consultant Perot Systems, Noida were the dignitaries to share the dais. The President of the management association delivered the welcome speech. The Vice Chancellor in his speech congratulated the students for conducting the



event and also spoke about the transformation that the world is going through. Mr. Krish Ramachandran, the keynote speaker, gave an insight into the present day challenges and extensively talked about "How to cope with change".

This edition saw participation from several colleges like ITM Navi Mumbai, IIT Bombay, NMIMS Mumbai, NITIE Mumbai, RIMS Rourkela, ITS Ghaziabad. The total number of outstation participants was 41. This edition of INTERFACE witnessed 8 events which included Paper Presentations, Case Studies, Debates, Clutters & Clatters (CNC), Forex, Young Manager of the meet (YMOM), BIZ QUIZ, Bidding which broadly covered the functional areas of Human Resource, Marketing and Finance. All the events were well received by all the students especially the events FOREX which was conducted by the Finance Club, YMOM conducted by HR Club and CNC conducted by Marketing Club. Mr. Pavan Vaswani, Director Sapient technologies, conducted a workshop on Process and Players which was attended by a good number of students.

The alumni batch of 1965 and 1995 funded the expenses for this year's edition by donating rupees 1.75 Lakhs.

## Earn While You Learn Program

On 24 April 2009, Prof G Raghurama, Deputy Director (Academic), distributed certificates to Mr Anil Kumar (2006D2TS880), Mr Rakesh Kumar Singh



(2004D2PS873) and Mr Vipin Jain (2005B4A1435) who did excellent work in the library under the Earn While You Learn Program. The student volunteers assisted the library in carrying out various jobs including Cataloguing, Barcoding books and Development of Library website.

## APOGEE 2009

The technical festival of the institute, APOGEE 2009 was held during 23 - 27 March, 2009. The festival was inaugurated by the Chief Guest Shri B.K. Chaturvedi, Member, Planning Commission, Govt. of India. The Nobel laureate and senior astrophysicist at NASA, John C. Mather's lecture was the major attraction of the techfest. His online lecture on the *Origin and Evolution of the Universe and the future of Space Research* attracted an amazing crowd consisting of



both faculty and students. Another awaited lecture was that of Jimmy Wales, the founder of Wikipedia. It was held in the BITS auditorium which has the audience capacity of 2500, was jam packed and lasted for a little over an hour. The event was also aired live on the Internet.

The APOGEE participants displayed various models of effective traffic control system namely 'Automated Traffic Control Signal' and 'Automatic Toll Booth'. A team from SNS College, Coimbatore also displayed its project Automatic Toll Collection. The first-phase rounds of Srishti, an AutoCad designing event, conducted by the Civil Engineering Association tested the participants in various skills like imagination, familiarity with Autocad, and knowledge about real structures. 'Science Quiz' and 'India Quiz' were conducted by a quizzing group called Quiz Monks.

A few workshops encompassing the technical areas were also conducted during APOGEE, catering to the varied interests of the participants. A fourteen hour 2-Stroke Bike Modification Workshop was conducted by the technicians. Renew Botix was conducted by Technophilia, where participants were required to build Robots. The *LabVIEW Workshop* was conducted by Mr. Vishal Barfiwala, and was attended by over seventy students. He talked about the LabVIEW software which is used in simulating various electronic instruments and mechanical devices, data



acquisition, and graphical programming. Other workshops which were conducted included the second edition of the popular Forensics Workshop by Dr. K.P.C. Gandhi, a *Parallel Processing* workshop by Nvidia and another by Sun Microsystems on NetBeans.

The Computer Science events included Smash the Bug, which tested the participants on their Java skills to get the pre-specified output, Garovista, an event based on MatLab programming. The computer game called Panmachia attracted more than 300 participants from all over India.

Among the design and build categories, *Water Rocket* was a top draw with students which required teams to renovate water bottles into rockets. Mine Maestro, in which the students had to fabricate an autonomous vehicle to retrieve material from a mine, was also organized. *The Full Throttle Grand Prix*, BITS Pilani's very own remote controlled (RC) racing challenge was attended by all the F1 racing enthusiasts. Blue Print, a contest to design a 5 star hotel near the Delhi airport using the design software AutoCad



was conducted. In Bioloid Soccer League (BSL) the participants were required to win head on football matches using robots. The event, although a new entry, garnered huge attention and adrenalin pumping to watch the football matches. The Vertigo project from the Mechanical Engineering Association attracted a lot of viewers. It was a vehicle which used magnetic belts to make transition between horizontal and vertical surfaces with ease. Other categories in which projects were put up on display, were Infrastructure, Resource Optimization, Signal Processing, Automation, and Software Design. Some of the other prominent projects up on display were A High Efficiency Bio Gas Plant, Herbal Cigarette, Visualizer for the blind, Fuzzy Logic Controlled Water



Tanks, Global Health Monitor, etc.

The Journalism Quiz attracted over eighty students, but the main attraction was Brain of BITS. Sidharth Ravichandran was awarded with the coveted title and a grand prize of 10,000 INR. The IBM quiz, also known as the Blue Battle, was also organized. Sponsored by IBM, the event aimed to identify the best talent among the students with respect to the online phenomenon Web 2.0. It was a three round event in which over a hundred students from all over the country participated.

The Matrix movie festival showed a few popular movies like The Bicycle Thief etc. In other arts events, the Photography Club organized Unmask which required participants to analyze a given picture, sort it, and click new pictures keeping in mind the identified techniques.

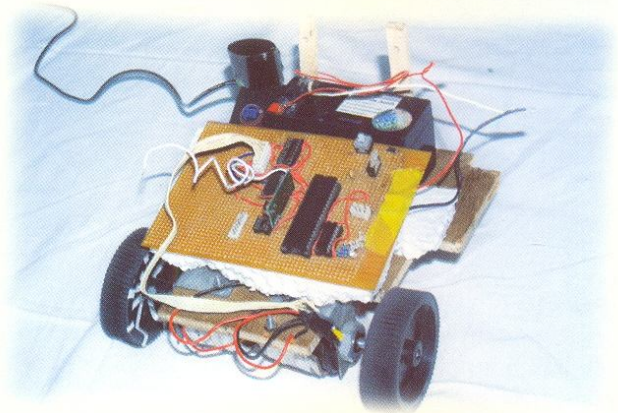
The newly formed BITS Model United Nation or BITSMUN also picked up momentum with some brainstorming sessions on an emergency oil crisis in the Economic and Social Council. The MUN was attended by over 105 participants including a team from BITS, Dubai.

The Junkyard Wars was held with teams competing for a cash prize of 10,000 INR. The teams after having qualified in two elimination rounds, were given the



task of fabricating a three wheeler which should also be able to lift sawdust. The last of the series of lectures included Contact Singapore which aimed at creating awareness about the career prospects in Singapore.

The Army Workshop conducted by Indian Army, the Exhibition partner of the fest showcased the various tanks and other ammunition such as T90S tanks, Thermal Imaging Stand Alone System (TISAS), Battle



Field Surveillance Radar, Gandiv INF BR and BIKRANT. It attracted not only the participants of the techfest but also witnessed many children from the local schools who got overwhelmed by the magnitude of the Tanks and also climbed.

The valedictory function of APOGEE 2009 was held on 27 March, 2009 and Shri Devrajan, Additional Director General of Police (Intelligence), Rajasthan was the Chief Guest for this occasion.

## ONWARD

### Vision 2020: Mission 2012

In 2006, Prof. L.K. Maheshwari our Vice Chancellor had formed a Task force to prepare a Vision 2020 document for BITS, under the convenership of Prof. G. Raghurama, Deputy Director (Academic). In February 2009, the first draft of the vision document was released for internal discussions. A 'Vision 2020: Mission 2012' workshop was conducted during 12 -14 April 09, to discuss the draft and to arrive at goals for

the foreseeable future and prepare the action plans. 24 faculty members drawn from all the campuses of BITS, including the VC, directors, and deputy directors, participated in this workshop. The workshop was facilitated by Mr. Kris Ramachandran and Mr. Paras Kaushik of the Aditya Birla Group. This is being followed up by town hall meetings of faculty, staff and students, creation of task forces and project steering team, and finalisation of a Strategic Plan for the University.

## CARING BEYOND OUR WALLS

### NSS

NSS BITS Pilani organized a Computer Literacy Program (CLP) at villages Raila and Jherli. During this, evening classes were conducted at the NSS school of BITS Pilani to help the needy children throughout the semester. An association of BITS, named **UMANG** was started which aimed at educating the needy people in and around BITS campus. Membership fee of a minimum one rupee per person per month would be collected from the donors for the activities of the association. Shri Dharmendra Kumar, who is leading the Bihar Chapter of AID, delivered a talk on *Empowerment of Youth for Transformation at Grass Root Level* on 26 January 2009. On the same day Prof. G. Raghurama, Deputy Director (Academic) flagged off a cycle rally to village Bans Gaon on the theme of *'Politics Means Learn to Govern Oneself'*. Shri V.K. Desai (BE (Mech.), LLB) on 8 February, 2009 delivered a talk and shared his experience on developing devices based on solar energy, wind energy, steam engine for production for masses, not the mass scale production for benefiting few. Prof. Vimal Bhanot, NSS Coordinator attended the two days workshop for establishing a community radio station organized by RGNIYD, Sriperumbudur during 5 - 6 May 2009. He also visited the Tinytech Plants and Aadhunik Global Energy Units run by Shri V.K. Desai at Rajkot during 21 - 23 May 2009. The



NSS volunteers also participated in various other activities like taking care of the planted trees in campus, collection and distribution of old clothes, creating awareness about the RTI Act. A Blood donation camp was also organized on 21-22 February, 2009 in collaboration with Indian Red Cross Society, New Delhi. A total number of 520 units of blood were voluntarily donated. A prize distribution function was organized on 19 April, 2009. Prof. N.V.M. Rao, Dean (SWD), the chief guest gave away the prizes for outstanding participation.

### NIRMAAN

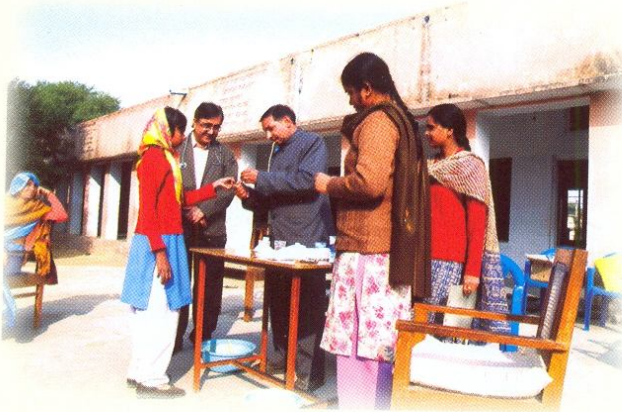
With the success of NIRMAAN Training Center (for stitching and handicrafts) at Khedla (a village near Pilani), a step was taken towards increasing the number of women enrolled into the centre. NIRMAAN screened "SWADES" movie on January 17, 2009 for the people of Khedla. Two of the village representatives gave inspirational speeches and shared with the villagers their experiences in NIRMAAN. The event also gave a chance to explain to the people the benefits of Self Help Groups and BioGas Plant projects undertaken by NIRMAAN. The villagers, who were the beneficiaries of the projects



also shared their views with the crowd and urged them to join hands and walk towards development. Its Production Unit SHG was also inaugurated by Prof. R.K. Mittal, Deputy Director (Administration), BITS, Pilani on 8th May at Harinagar Colony. The centre has trained 10 women in 3 months in basics of stitching and handicrafts for manufacturing products such as kurtas, bags, file folders, etc. These products will be marketed in Pilani and other towns. Eleven women were trained in one month in preparing laptop covers, bags, kurtas etc.

### Center for Women Studies

As part of the Twelve by Twelve Initiative of GOI, WHO, UNICEF, FOGSI for anemia reduction during adolescence, UGC Center for Women Studies undertook various activities to enhance awareness



about anemia at Rajkanya Middle Girl's School in Jherli village and other nearby schools in villages near Pilani. Under the supervision of Dr. R.P. Pareek, Medical Superintendent at BITS, Pilani, Hemoglobin test was conducted on 45 girls through prick method. The CWS team recorded the Hemoglobin level of each child. Supplementation of Vitamin C and Iron tablets were advised every week in Senior Secondary School and Rajkanya Middle Girl's School, Jherli. A One day workshop on 'Aspiring and Budding Women Entrepreneurs' on 22 February, 2009 at BITS, Pilani was also conducted. The Centre for Women Studies along with READ (Rural Education & Development) India, conducted another one day Workshop on June 13, 2009 at BITS, Pilani to discuss "The Self-Sustainability of Social Businesses for Societal Development". Besides, a three and a half months training program in computer literacy and cataloguing of books and journals for rural based girls and women is also being imparted every semester. The UGC Centre for Women Studies at BITS, Pilani has initiated the activity on recycling of paper by setting up the Mini Paper Recycling Unit purchased from "Technology and Action for Rural Advancement" (TARA) New Delhi during 2007. Women have been trained by CWS team on recycling of waste paper. The trained women are using the recycled paper sheets for making letter pads and visiting cards.

The CWS also undertook a project on 'Safe Motherhood and Access to Resources among Nomadic Populations in Desert Regions



in Rajasthan, India and the Negev, Israel-A Comparative Perspective' during the seminar. CWS, BITS, Pilani has clustered with Women Studies Centre, Banasthali Vidyapith to conduct this study in Rajasthan with the former covering the Shekhawati region consisting of Jhunjhunu, Sikar and Churu districts and the latter covering Sawai Madhopur, Tonk and Kota districts. The study is still going on.

The CWS also monitored various other activities such as Training Centre for Stitching and Tailoring, Child Care Centre in Raila village near Pilani. Program for distressed (BPL) rural women in order to make them self reliant by giving them required basic training in income generating activities such as weaving, tailoring in Jherli village near Pilani, and Telemedicine Centre for Accessibility to Primary Healthcare for Villages around Pilani throughout the semester.

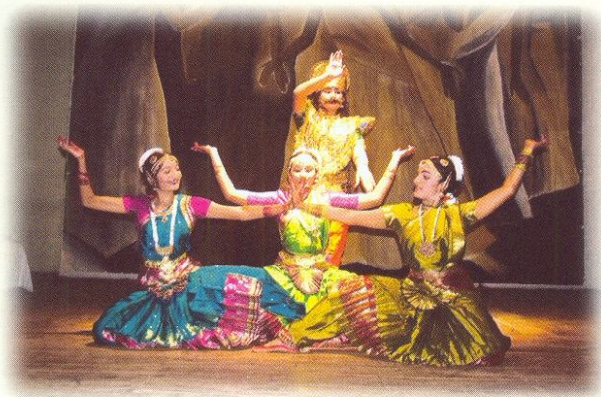
## CREATIVE ZONE

SPICMACAY, BITS Pilani chapter, had a host of activities spread over the last semester. Renowned vocalist Smt. Meeta Pandit, who is also acknowledged as the scion of the Gwalior musical gharana, gave a scintillating performance in Hindustani classical music on 17 January 2009. The Dutch Cello performer Saskia Rao De Haas gave an amazing cello performance of North Indian classical music by using a specially constructed cello for this purpose, with five playing strings and ten sympathetic strings.

There was a captivating performance by renowned Carnatic vocalist, Padma Shri Madurai P N Seshagopalan and another enthralling performance was given by Yamini Reddy, the famous Kuchipudi dancer on 20 January 2009. Sufi singers, Dharohar also gave an enchanting performance. Another major feature this year was the four-day calligraphy workshop from 18 - 22 March 2009 conducted by Dr. Anees Siddiqui and was greeted with a tremendous response by the students. Every single concert was appreciated by one and all.

### Ragmalika

The second semester 2008-09 began under the auspicious graces of saint Tyagaraja with the Tyagaraja Aradhana festival being held at BITS, Pilani on Founder's Day. This traditional event saw many non ragamalikans who not only got an opportunity to learn the Pancharatna Kritis of saint Tyagaraja and but also accompanied club members to sing them on stage. Bearing the title "PARADVIJAJHA", this year's Sangamam promised a rich mix of originality and tradition with the story, music and dance being original creations of the club members. The later half of

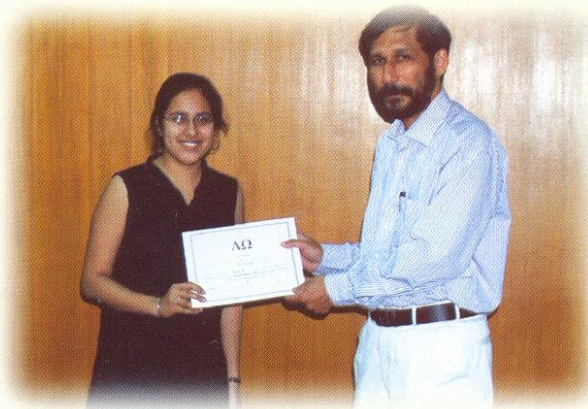


the semester brought with it a renewed buzz of activity with two more concerts being organized. A Ghazal concert aptly titled “Shaam-E-Ghazal” was much appreciated by students and faculty members alike with song requests pouring in, even after the end of the concert. A Carnatic vocal concert showcasing mellifluous renderings of some classical compositions brought an eventful semester to a close.

### MATRIX

MATRIX - a forum for radical information exchange-started off with an internal book review of *Artemis Fowl* by Eoin Colfer. The review, was done by two MATRIX members, Pavan Kumar and Sairam S. The second book reviewed was the Booker Prize winning novel *The White Tiger* by Aravind Adiga. Dr. Usha Manjunath, Dr. Sangeeta Sharma and a student panelist Bhavesh C Sangem discussed various elements in the book. During APOGEE, MATRIX held three events. These

were- i) *Excalibur Alternative* - a quiz about Music, History, Literature and Art in which the teams from BITS, Pilani - Dubai Campus out of total six teams emerged as a winner; ii) *MATRIX Film Festival*, in which two Academy Award Nominees films - *Children of Heaven* (Iranian) and *Bicycle Thieves* (Italian), were shown in FD II QT; iii) *The Book Lounge*, which was an exhibition of books from various categories including Technical, Philosophy, Award Winners, Indian Authors, Science Fiction, History and Mythology, Biographies, some Quick Reads and many more. The exhibition was



accompanied by a lounge where enthusiasts could make themselves comfortable and read. The exhibition was a huge success. The activities for the semester ended with a valedictory function held at VFAST on 24 April 2009 in which all the events were discussed, awards were given and future plans were discussed.

## INTRODUCING NEW FACULTY

| Name                  | Designation        | Discipline  | Research areas  |
|-----------------------|--------------------|-------------|---|
| Dr. Vinod Kumar Madan | Visiting Professor | EEE         | Digital Signal Processing and Applications, Speech Processing, Image Processing, Non destructive testing, Nuclear Spectroscopy, Artificial Neural Networks, Instrumentation, and Merging of Engineering Techniques with Soft Sciences |
| Dr. Deepmala Sharma   | Lecturer           | Mathematics | Cryptography  |
| Madhushree Sarkar     | Lecturer           | Chemistry   | Supramolecular Chemistry  |
| Nidhi Mishra          | Lecturer           | Chemistry   | Medicinal Chemistry, Synthesis of Naturally occurring Molecules especially Flavonoids   |
| Madhukar Mishra       | Lecturer           | Physics     | Hi-energy Particle Physics  |
| Pramod Kumar Yadav    | Lecturer           | Mathematics | Fluid Mechanics   |

# BITS training HZL staff

HT Correspondent  
Jaipur, January 7

IN AURATING THE Academic Development Programme in Basic Process Engineering for newly appointed employees of HZL Zinc Limited (HZL), Udaipur, Maheshwari, Vice Chancellor of Institute of Technology and Manufacturing Development...

first of its kind in the world, he said and appreciated the quality of training and faculty at BITS, Pilani.

In fact, starting in 2004, so far... programmes have been... This is... principal... the fe... try...

## BITS student first non-American in Yale MBA programme

HT Correspondent  
Jaipur, January 10

... leaders in business... management... Strategy... Business Administration... BITS, Pilani...



## Enterprising for better environment

... Week, which promotes the spirit of entrepreneurship in our country's colleges and has participation of 2,00,000 students...

## पिलानी का छात्र बनेगा सत्यम का सीईओ!

विवेक पॉल के नाम की चर्चा  
बंगलूर, 14 जनवरी (एन...)



## BITS robot bags first place in Tech'

HT Correspondent  
Jaipur, January 30

A ROBOT created by students of Birla Institute of Technology and Science (BITS) Pilani got the first prize at Indian Institute of...

The robot, Wall E, has been designed by Uttam Garg, Ravi Shankar Ippol, Naveen Karthik Pinnala, Ravi Kiran Arthana and Srikanth Mamasani students at BITS. The term 'robot' means a robot that...

## Need for more trained personnel in s...

HT Correspondent

An important human resources development challenge will be in generating more trained personnel to meet the increasing requirements in science...



## India's second human robot unveiled

Prakash Kamat

... take... Phys... Add... ter... with... ary... heshwar... online... year... Innovat...

... the 25... thinking has to be global... Even as the population in Western societies was ageing, India and China, with a substantial segment of...

## मुंबई टेक फेस्ट में बिट्स अव्वल

HT Correspondent  
Jaipur, March 13

... the best among the large number of essays received on this topic...

## BITS student tops essay contest

HT Correspondent  
Jaipur, March 13

... education and training courses should be introduced in all schools in online format...

## 'Education' at BIT Congress

HT Correspondent  
Jaipur, March 24

... WITH THE display of humanoid robot 'HELLO'...

## Goldman Sachs grant for BITS Pilani student

Social Correspondent

M. Harsha Vardhan student of science at Birla Institute of Technology (BITS), Pilani, has received a grant of US \$10,000 from the Social Entrepreneurship Contest Global program. The proposal to develop...

## BITS, Pilani gets an A from accreditation body

HT Correspondent  
Jaipur, February 2

A PEER team of the National Assessment and Accreditation Council (NAAC) visited the campus at...

## BITS workshop attracts 260 participants

HT Correspondent  
Jaipur, January 23

... have jointly organised it. Inaugurating the workshop, Chandra Shekhar, Director, Central Electronic Research Institute, said that...

## कृषि में नैनो टेक्नोलॉजी

बिस्मिल्लाह

... को बताते हुए कहा कि नैनो सिस्टम डिजाइनिंग पर दिन...

## मितीकियों पर बिरला दंपती फिट

बिस्मिल्लाह

... को बताते हुए कहा कि नैनो सिस्टम डिजाइनिंग पर दिन...

## HELLO

HELLO

HELLO

## कृषि में नैनो टेक्नोलॉजी

बिस्मिल्लाह

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## HELLO

HELLO

HELLO

Editor: Dr. Pushp Lata

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