

BITScan

Semester Notes

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A BLESSED SEMESTER

BITS Pilani was blessed with and honoured by the visit of Dr. A.P.J. Abdul Kalam, the then President of India on 30 March 2007. The entire BITS community of students, faculty, and the people of Pilani were overwhelmed by the luminary's presence and his address at the BITS auditorium. Dr. Kalam's visit added one more great personality of India to the list of Presidents and Prime Ministers who had visited the Institute earlier.



The second semester 2006-07 witnessed few other significant events. Prof. L.K. Maheshwari, the VC, addressed the first year students of First Degree and Higher Degree in the auditorium on 10 January 2007 initiating an avenue for them to share their experience at BITS. BITSAT proudly presented its third edition during 10 May-07 June 2007 with 68000 test takers. The number of students has been on the rise since BITSAT started its journey in 2005 and this year it has touched 88000. The Professional Development Centre was inaugurated in Bangalore on 26 December 2006. Foundation stone was laid for the Hyderabad Campus by Dr. Rajasekhara Reddy, Chief Minister of Andhra Pradesh in the presence of Dr. K.K. Birla, Chancellor, BITS on 28 April 2007.

Research at BITS has acquired greater momentum during this semester. Faculty members from various disciplines have enabled BITS, Pilani to create a new record by winning significant research projects with financial support from government agencies and private organizations.

APOGEE2K7 with its theme Dhiti – Reflecting Intelligence witnessed international participation for the first time since its inauguration 24 years ago. Interface, the management festival focussed on HR practices of the corporate world and had the privilege of listening to many CEOs and senior managers from reputed companies.

Several national and international conferences were organized by various faculty groups attracting participants from India and abroad thus paving way for deliberating on significant academic issues. A number of workshops and training programmes were conducted for varied audience that included academicians, professionals, school children and also the office staff.

Faculty members brought laurels to the Institute by presenting their research papers at conferences within and outside the country, acting as editorial advisors, editorial members and reviewers for various journals, delivering invited lectures and acting as resource persons for workshops and training programmes organized by other institutions.

Besides academic activities, the semester was replete with multifarious cultural activities organized by students, and social initiatives taken up by the Institute under the aegis of various centers and forums.

HONOURS

President's Visit

"BITS has promoted good educational standard during the last four decades and transformed itself into a world class institution. With its linkages with premier institutions and industries, it has a right ambience for the creation of global human resources" said Dr. A.P.J. Abdul Kalam, the then President of India during his visit to BITS, Pilani on 30 March 2007.



Elaborate arrangements were made at the Institute for India's Missile Man's visit. Arriving in Pilani at about 2.45 p.m., Dr. Kalam visited the Institute's library where he went around the various sections, showed keen interest in BITSAT operations and conversed with some students who were eager to meet him. Then he moved on to the auditorium overflowing with students, faculty members and

dignitaries to address the excited gathering. Seated on the dais with the President were Dr. Digamber Singh, Health Minister, Government of Rajasthan, Prof. S. Venkateswaran, Professor Emeritus-cum-advisor, Prof. L.K. Maheshwari, Vice Chancellor, and Prof. K.E. Raman, Deputy Director (Admn.).

Prof. L.K. Maheshwari welcomed the Hon'ble President and presented a brief note on the history and achievements of BITS, Pilani. After addressing the huge gathering on "Convergence of Technologies" the President invigorated and inspired the audience by answering questions posed by various students of the Institute. Then Prof. S. Venkateswaran presented a memento to the President of India and the hour-long program ended with the vote of thanks by Prof. K.E. Raman.

Hyderabad Campus

Dr. Y.S. Rajasekhara Reddy, Chief Minister of Andhra Pradesh laid the foundation for BITS Pilani-Hyderabad Campus at Jawahar Nagar, Hyderabad on Saturday, the 28th April 2007 in the presence of Dr. K.K. Birla, Chancellor, BITS, Pilani.



The function was attended by several Ministers of Andhra Pradesh Government; Speaker of Andhra Pradesh Assembly, Advisor to BITS, Pilani, Vice Chancellor, BITS, Pilani; Directors of Hyderabad, Goa and Dubai Campuses of BITS, Pilani; practice school faculty, students and alumni of BITS, Pilani. The Chief Minister of Andhra Pradesh thanked Dr. K.K. Birla for establishing a campus of BITS Pilani in Hyderabad and he remarked "It's a dream come true for us." The Chancellor appreciated the cooperation extended by the Government of Andhra Pradesh for this challenging project. He also

announced that after completing the Hyderabad campus, BITS would set up an Institute of Management in the lines of IIMs.

ACADEMIA

A Confluence of Ideas

Seminars / Conferences / Workshops / Training programs

International Conference on Emerging Mechanical Technology: Macro to Nano (EMTM2N-2007)

The three day International Conference EMTM2N-2007 was organized at BITS, Pilani during 16-18 February 2007. It was formally inaugurated by Prof. L.K. Maheshwari, by lighting the ceremonial lamp. In his key-note address, Prof. Chandrashekhar,



Director, CEERI, Pilani outlined the emerging scope for nanotechnology and felt that this will prove to be the motive force for all new developments in science and technology. He emphasized on the need for interdisciplinary research which will ultimately enrich individual disciplines and benefit humanity by solving their complex problems. Dr. Mark G da Silva from Exponent Inc., Massachusetts, USA, who was the guest of honor, focussed on the need for more and faster development in this area to make human-computer interface more useful. More than seventy papers were presented and discussed in this conference by participants from India and abroad. A large participation of international delegates from countries like USA, UK, Russia and Portugal proved the importance and relevance of the topic as well as the conference. The event also included a one day MEMS workshop on 16 February 2007 conducted by resource persons from Coventor Inc. USA, and Future Techno Design (P) Ltd. Singapore.

13th National Conference on Surfactants, Emulsions and Biocolloids with special focus on Biomimetic systems (NATCOSEB-BIMS)

The three-day long 13th National Conference NATCOSEB-BIMS was jointly organized by BITS, Pilani and the Indian Society for Surface Science and Technology (ISSST), Kolkata during 22-24 February 2007. Prof LK Maheshwari, released the conference proceedings at the inaugural function.



Prof. S.P. Moulik, President, ISSST, in his scholarly keynote address on “Surfactants, Emulsions, Biocolloids and Biomimicking Systems: A cursory Glance” presented a panoramic view of surfactants and discussed Amphiphiles, Emulsions, Microemulsions, Features of Biopolymers, Coacervates, Biocatalysis and Lotus effect of biomimicking systems. About 70 participants from various parts of the country, faculty and students of BITS, Pilani attended the conference.

Seminar on Atomic Energy for the Development of the Nation

With the objective of spreading awareness about Nuclear Energy and its various applications, the one-day seminar was jointly organized by Educational Development Division, BITS, Pilani and Indian Nuclear Society, Mumbai on 9 January 2007 at the Institute. Inaugurated by Prof. L.K. Maheshwari, the seminar included technical sessions in which scientists from Indian Nuclear Society (INS) delivered expert lectures.



Shri. K.S.S. Sarma, Shri D. Venkatesh and Shri S.K. Malhotra spoke on “Isotope Applications in medicine and Agriculture”, “Remote Handling and Tele-manipulation” and “Atomic Energy for the development of the Nation” respectively. Shri. G.D. Mittal, Hon. Secretary, INS, gave a lecture on “INS activities”. The talks dealt with topics such as production of electricity using nuclear energy and its advantages over the conventional techniques for producing electricity, Indo-US nuclear deal, etc.

Seminar on University-Industry Linkages

Organized by the PS Division, the three-day seminar on University-Industry Linkages held during 9-11 March 2007, aimed at providing a common platform for young prospective engineers and industry executives to express their views, share their experiences and explore future opportunities in engineering. The Chief Guest on the occasion, Mr. Sushil Kumar Roongta, Chairman, SAIL, inaugurated the seminar and while speaking to the audience said that BITS had contributed greatly in India’s development.

According to Mr. Roongta, “The culture of entrepreneurship and the risk taking ability of Indian entrepreneurship is really going to be the biggest advantage for Indian industries in future”. The seminar served as a forum for PS faculty from various centers



across India to discuss issues pertaining to University – Industry linkage and for a large number of students to present their projects carried out in various industries during their PS programmes.

Round Table Discussion on Sharing Best Practices for Increased Participation of Women in Science & Technology Education & Career.

This discussion was organized by the UGC Centre for Women Studies, BITS Pilani on 10 Feb. 2007.

Academicians, scientists, engineers, technocrats, social scientists, policy makers and representatives from women studies centers and



various NGOs working in related fields participated in the workshop and made meaningful contributions. Dr. Smriti Trikha, Science Officer, Indo-US Science & Technology Forum, Fulbright House, New Delhi spoke on “Correcting the Gender imbalance” and enlightened the august gathering with some interesting facts about women in different fields.

Training Oriented Workshop on Quality Improvement for Police Personnel

The one-day workshop on personal effectiveness for the police department, organized by the Public Relations Unit on 24 February 2007, was inaugurated by Prof. L.K. Maheshwari. In his inaugural speech he emphasized on the importance of soft skills and life skills in day- to-day organizational effectiveness. The workshop was in continuation with the previous one-day programme organized on 15 December 2006.



The objective of the workshop was to enhance the personal effectiveness of personnel in their job roles by creating awareness and exposing them to basic skills in the area of motivation, time management, team building and stress management.

Regional Workshop of NSS Program Officers

A two-day Regional Workshop of NSS Program Officers was organized by BITS Pilani during 24–25

February 2007. While inaugurating the workshop, Prof. L.K. Maheshwari told the gathering about the major role played by NSS in providing rural India with sustainable methods of development in the areas of education, health care and environment conservation. Shri S.P. Bhatnagar, Youth Officer, NSS Jaipur and Dr Motilal Dash, Coordinator, NSS



BITS Pilani were the conveners of the workshop that witnessed the participation of Program Officers from NSS units of Western Rajasthan.

Workshop on Analog and RF Design

EEE and Instrumentation groups conducted a three-day workshop on Analog and RF Design during 16 – 18 March 2007. Dr. Chandra Shekhar, Director, CEERI Pilani, the chief guest at the inaugural function acknowledged the efforts made by government, academic institutes and industrial partners in establishing India as a major player in electronics design. He stressed on the need to encourage R&D efforts to find alternate directions for better performance through leveraging architectural design of IC's. Prof. LK Maheshwari, in his welcome address, focused on the vast influence of electronics across fields ranging from lifestyle to biotechnology and medical instrumentation. Apart from resource persons from IIT Madras, ST Microelectronics, Cosmic Circuits and Texas Instruments, people from Infineon



Technologies, Wipro Technologies, TESPV Electronic Solutions, Analog Devices, Silicon Capital, C-DAC Hyderabad and Academic institutions including BITS, Pilani and CEERI, Pilani attended the workshop.

Academic Training Programme for HZL

The third one-month training programme in Basic Process Engineering for the newly recruited employees of Hindustan Zinc Limited was conducted during 12 January -13 February 2007.



This program is specially designed for the employees of Process Industries in India which have been facing a challenge of developing and updating the knowledge of their human resources in order to cope with the rapid technological and social changes arising due to globalization and liberalization. 67 employees were trained through this programme in various subjects such as

Chemical Engineering, Basic & Applied Physics and Chemistry, Management and Finance, Communication Skills, Maintenance Management, Use of Spreadsheets, Workshop Practice and Computer Practice. The first two programmes were held during November 2006-January 2007.

Workshop on Effective Public Speaking

A one-day Workshop on Effective Public Speaking was conducted on 14 April 2007 for the faculty members by the Languages Group. 25 faculty



members from different disciplines enrolled for the workshop. Inaugurating the workshop, Prof. L.K. Maheshwari, lauded the efforts of the Languages Group and emphasized on the importance of effective public speaking skills for teachers to be more successful in their professional careers.

Summer Science Workshop on Science, Imagination & Discovery

BITS Pilani and CEERI, Pilani jointly organized a workshop on Science, Imagination and Discovery for school children during 14-22 May 2007 that aimed to pique the imagination of young minds and to inculcate in them a sense of keen observation and imagination leading to discoveries. 33 children studying in classes VII to XII at various schools of Pilani were geared up to enjoy the fun-filled intellectual workshop coming to them as a relief from their strenuous final examinations. The



inaugural function was graced by Prof. L.K. Maheshwari, Dr. Rajesh Luthra, Head, HRD Group, CSIR Delhi; and Dr. Chandra Shekhar, Director, CEERI who motivated the young minds towards research and discovery in science. Visits to BITS and CEERI labs, lectures by eminent scholars and film shows on science, environment and discovery were organized during this period. The nine-day summer workshop ended with the distribution of certificates and mementoes by the Chief Guest, Mrs. Gayatri Maheshwari and the sharing of experiences by the participants.

Intensive Teaching Workshop for Faculty of TITS, Bhiwani

For the first time, a week long teaching workshop was conducted at BITS, Pilani for the faculty members of Technological Institute of Textiles and Science, Bhiwani. Prof. L.K. Maheshwari, Prof. K.E. Raman, Deputy Director (Admn.) and Dr. Rishi Jamadagni, Director, TITS graced the inaugural function. In this programme, held during 25-30 June 2007, eight model lectures by senior faculty members of the institute and one lecture by the Director, CEERI, Pilani were

delivered. Every participant from TITS, Bhiwani gave two lectures of 20-minute duration followed by 15-20 minutes of assessment by six members of the resource faculty team. The participants were also encouraged to assess themselves by watching the video recordings of their lectures. A group discussion on “Multidimensional roles of a Teacher” involving all the participants was also conducted. The valedictory function was graced by Mr. Jayant Sogani, Joint President TITS, Bhiwani and Prof. G. Raghurama, Deputy Director (Academic), BITS, Pilani.

Orientation programme on “Adolescent Health” for Nodal Officers of NSS

NSS BITS Pilani and Rajiv Gandhi National Institute of Youth Development [RGNIYD], Sriperumbudur jointly organized a one-day orientation programme on “Adolescent Health” for Nodal Officers of NSS on 27 July 2007 at the VFAST hostel. More than 30 programme officers from the states of Delhi, Haryana and Rajasthan participated in the



orientation programme and received training in how to organize quizzes on the topic mentioned. The occasion was graced by Prof. L.K. Maheshwari, Prof. K.E. Raman, Deputy Director (Admin), and many other senior faculty.

Skills Development Programme for Office Staff

Under the ongoing programme for Development of Personal and Office Skills, the three-month training



for the second batch consisting of twenty office staff was organized during 13 January – 30 March. The objective of the training program was to train them in the office administration, interpersonal communication and computer skills.

NATIONAL SCIENCE DAY

Every year, 28th February is celebrated as National Science Day to honor the great scientific achievements of Sir C.V. Raman. To mark this occasion in 2007, a number of activities such as quiz for the local school children, lectures on topics of popular science and two events for BITS students namely, science debate and science quiz were organized by the members of Science Group during 16-28 February.



Three schools from Pilani took part in the **quiz competition**, which comprised multiple choice round, visuals round, demonstrative round and quick fire round. **Science debate competition** for the students of the institute was held on 17 February on “Scientific research in India does not benefit the grassroot.” **Popular science quiz** for the students was organized in two rounds. The preliminary round was an online science quiz for all students held on 16 February in the IPC. Out of 160 participants, the best twelve students (six teams of two) were selected for the finals, held on 25 February. On the concluding day, 28 February, a series of four **popular science lectures** by faculty members was conducted. The topics were: The Clock ticks, I have seen the light : vision and light induced molecular changes, Thirst quenching mechanism of a desert beetle, and Mathematical modeling of real life problems using cellular Automaton. At the **valedictory function**, Prof. L.K. Maheshwari addressed the gathering and gave away the prizes for the quiz and debate competition.

FOUNDER'S DAY

The Institute celebrated the 43rd founder's day on 23 January 2007 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 to pay reverence to the founder of this institute. Thyagaraja Aradhana was performed by Ragamalika in the morning and a cultural



programme by various regional associations was organized in the auditorium in the evening.

For the first time the Institute initiated awards for the best non-teaching staff members across the Institute. Shri Mahesh Kumar Sharma (EEE), Shri Ram Karan (DLPD), Shri Shyam Sundar Saini (PSD), Shri M.K. Kokcha (ARCD), Shri Mahendra Singh (ESD) and Shri Laxman Saini (PRU) received the award at the function organized on this day.

World Health Day

To mark the celebrations of World Health Day on 7 April 2007 the Community Welfare and



International Relations Unit of BITS, Pilani organized a **Walk for Your Health** event. A large number of faculty members along with their family members, Students and other staff led by Prof. L. K. Maheshwari participated in the walk covering a distance of about 5 km in the Vidya Vihar Campus.

Basant Book Festival

Basant Book Festival was held at the Akshay Supermarket during 13-18 February 2007. Over



2000 titles were available for sale and display and the subjects included Fiction, Biography, History, Sciences, Social Sciences, Children's Books and General Reference, in addition to the latest academic titles. Prof. K.E. Raman, Deputy Director, BITS, Pilani inaugurated the Book Festival on 13 February 2007 in the presence of senior faculty members and students.

DISTINGUISHED LECTURES AT BITS PILANI



| SPEAKER | DESIGNATION | TOPIC | DATE |
|----------------------------------|---|--|---------------------------------|
| Dr. Deepa Joshi | GM (Discovery), Torrent Research Centre, Gandhinagar | Some Aspects of Drug Discovery | 10 January 2007 |
| Prof. Bhaskar Bose | Adjunct Professor, BITS, Pilani | Managerial Traits and Behaviour | 13 January 2007 |
| Dr. Vinod Nowal | Executive Director, JSW Steel Ltd | Challenges before the steel industry and the growth of JSW Steel Ltd. | 25 January 2007 |
| Dr. Suparno Choudhary | Head-Interactive Media & Animation, ITC Infotech Ltd., Bangalore | Business and Technology of Animation and Gaming | 27 & 28 January 2007 |
| Dr. R. Manavalan | Head, Institute of Pharmaceutical Technology, Annamalai University | ICH Guidelines for Stability Studies of Pharmaceuticals for International Registration | 5 February 2007 |
| Mr. Madhukar Gupta, I.A.S | Divisional Commissioner, Jaipur | 1. Public Private Partnership in Health Sector 2. Improving Service Delivery in Health-Gender Perspective | 7 February 2007 |
| Prof. Ram V Chandran | Adjunct Faculty, John Hopkins University, Baltimore, MD; Fulbright Teaching Fellow, Dept. of Studies in Economics, University of Mysore | 1. A series of talks on topics related to Economics and Finance 2. Vedanta and Geeta's Relevance in Present Context | 8 February 2007 |
| Prof. Jane Schukoske | Executive Director, US Educational Foundation in India | Indo-US Educational Collaborations and Opportunities | 9 February 2007 |
| Dr. Linda Pen | Head, Division of Cancer, University of Toronto, Canada | Targeting Protein: Protein interaction at the level of Gene transcription | 16 February 2007 |
| Dr. Eleanor Fish | Senior Scientist, Division of Cellular & Molecular Biology, University of Toronto, Canada | Antivirals: A drug development strategy for using on broad spectrum antivirals | 16 February 2007 |
| Dr. Lakshmi P. Kotra | Asst. Professor & Director (MDIT), University of Toronto, Canada | Protein Kinases in Signal Transduction and their Selective Inhibition: A structure based approach | 16 February 2007 |
| Prof. Muhammad Salim | Dept. of Electronics and Communication Engineering, MNIT, Jaipur | Islam for Peace, Progress and Salvation | 27 February 2007 |
| Mr. K. Vijay Rao | Vice Chairman, Epicentre, Mumbai and Adjunct Faculty, BITS Pilani | Importance of Thinking Strategically in a Borderless World | 1 March 2007 |
| Dr. Sonia Suchday | Director and Coordinator, IPHC, Albert Einstein College of Medicine, Yeshiva University, New York, USA | Life Style Related Diseases: Perspective in India | 7 April 2007 |
| Mr. Ujaval Gandhi | Senior GIS Specialist Google Earth / Maps (BITS-Alumni 1999A2PS066) | Applications of Google Earth for Academic Research | 16 April 2007 |
| Dr. Kishore Kunnapuli | DMI, German Cancer Research Centre, Heidelberg, Germany | Molecular and Cellular Mechanisms of Antigen Presentation | 20 April 2007 |

VISITS BY FACULTY: ENRICHING THE LEARNING EXPERIENCE

International Visits

Prof. K.E. Raman, on invitation, visited the HAS School of Business at the University of California, Berkley, USA to participate in the Technology Entrepreneurship Education: Global Faculty Colloquium during 16 – 27 April 2007. The Colloquium was sponsored by Intel Corp. and Indo-US Science & Technology Forum and was attended by 40 faculty members from all over the globe.



Prof. Raman also visited George Mason University, Virginia and Uniformed Services University of Health Sciences, Bethesda, Maryland USA and also held discussion with various alumni groups in Washington DC and Sanfransisco.

Dr. Subit Kumar Saha presented a paper on "Intramolecular Charge Transfer Fluorescence and Existence of Excited State CIS-Trans Isomerism in a Derivative of Benzothiazole." at 38th Convention of the South African Chemical Institute, Natal, Durban from 3–8 December 2006.

Mr. Yashwardhan Sharma presented an online paper on "New Approach to overcome the complexity issues raised by Simple Bitmap Indexing" at the international conference on Computer, Information, and Systems Sciences and Engineering held at Bridgeport from December 4-14, 2006.

Prof. Nirupama Prakash was invited as a Resource person by One World South Asia, New Delhi to participate in the Annual Regional Meeting on "Mid Way to MDGs-Accelerating the Process through ICTs-Gender Perspective" held at Dhulikhel, Kathmandu, Nepal during 27-28



February 2007. On invitation Prof. Prakash also visited Blaustein Scientific Cooperation, the Jacob Blaustein Institute of Desert Research, Ben Gurion University, Negev, Israel to work with Dr. Pnina Motzafi-Haller, Department of Man in the Desert, BGU on a proposal entitled "Safe Motherhood and Access to Resources Among Nomadic Population in Rajasthan, India and Negev, Israel-A Comparative Perspective" during 20-31 May 2007. She was invited as a resource person for a discussion meeting on social gerontology by Newcastle University, Newcastle Upon Tyne, UK from June 25th to July 2nd, 2007. The meeting led to formulation of a project on "Effect of Ageing on Access to Transport" to be taken up by Humanistic Studies Group, BITS, Pilani with the financial support from Newcastle University.

Prof. Meenakshi Raman presented a paper on "Activity Based Approach for Teaching Scientific and Technical Writing in English" at the 41st International Annual IATEFL Conference and Exhibition held at Aberdeen, Scotland, UK from 18–22 April 2007.



Dr. Anil Kumar visited College of Pharmacy, Department of Biomedical & Pharmaceutical Sciences, University of Rhode Island, Kingston, USA as visiting research scientist in Prof Keykavous Parang's research group for collaborative research work during 28 May - 29 July 2007.

Dr. Shikha Tripathi presented a paper on “Quantization Based Blind Watermarking Algorithm Using DWT” at the 2007 International Conference on Image Processing, Computer Vision, and Pattern Recognition held at Las Vegas, Nevada, USA during 25-28 June 2007 organized by the 2007 World Congress in Computer Science, Computer Engg & Applied computing, USA. “. She also chaired two sessions on “Image filtering, image modeling, image analysis & image enhancement” and “Novel algorithms & applications, related issues”.

Prof. Arya Kumar presented a paper entitled “NPA Management in Indian-Policy Implications” at the 16th International Input-Output Conference held at



Istanbul, Turkey from 2-6 July 2007 organized by Istanbul Technical University.

Dr. M. Ishwara Bhat, on invitation from University Librarians Association of Sri Lanka, delivered a lecture on “Work Closer with change agents: New role for Higher Education Libraries” in the International Conference of University Librarians held at Colombo during 8 - 9 July 2007.

Dr. Arun. C. presented a paper entitled “Knowledge based decision support tool for duration and cost overrun analysis of highway construction projects” at the CME 25: Construction Management and Economics: Past Present and Future held at Reading, London, U.K during 15-17 July 2007 organized by the University of Reading, U.K.

Prof. Rahul Banerjee visited the Centre for Design Research at the Computer Science Department of Stanford University on 18 July 2007. This visit has resulted in two new research collaborations between Stanford University and BITS, Pilani. He also visited Microsoft Research, Redmond (USA) for participating in the 2007 Microsoft Research Summit during 16-17 July 2007.

Dr. Dilip Kumar Maiti presented a paper on “Double-diffusive Mixed-convection in a lid-driven cavity under the counter-acting buoyancy forces”

in the poster presentation session of the sixth International Congress on Industrial and Applied Mathematics (ICIAM-07) held at Zurich, Switzerland during 16-20 July 2007.

Dr. Nilashis Nandi visited Max Planck Institute for Colloid and Interface Science, Golm, Potsdam, Germany during June-July, 2007 and delivered an Invited Lecture on “Chirality in biomimetic systems” in the Interface Division Seminar.

Invited Lectures/Participation by Faculty

Prof. A.K. Sarkar, at the invitation of the CAPART, attended the one-day Workshop of Facilitator cum Evaluators conducted at Jaipur on 31 January 2007. He was a resource person in the workshop on Rural Roads Safety in the PMGSY conducted for the Engineers of the Public Works Department, Government of Orissa at the Institute of Technology, Bhubaneswar during 12-15 February 2007. Prof. Sarkar was also invited by the Engineering Staff College of India, Hyderabad to deliver a lecture in the training programme on Urban Transport Planning and Management during 24-26 May 2007.

Prof. Ashis K. Das delivered an invited lecture on “Systems Biology Approach in severe Malaria” at the 75th Annual Meeting of the Society of Biological Chemists (India), at JNU during 8-11 December 2006. Prof. Das also gave an invited talk on “Molecular Analysis of Plasmodium Vivax involved in severe manifestations”, at the 33rd Indian Immunology Society Conference held at AIIMS, New Delhi during 28 – 31 January 2007.

Prof. B.V. Babu was invited as a Distinguished Speaker for the “National Seminar on Bio Films: Challenges & Applications” held by Bharatiya Vidya Bhavan’s Research Center during 12-13 January 2007. He was also an Invited Speaker in the Indo-US Workshop on “Advances in Computational Optimization and Analysis of Systems”, held at the Indian Institute of Technology (IIT), Kanpur during 7-9 February 2007. Prof. Babu chaired the symposium on “Immunology of Bacterial and Viral Diseases” in the 33rd Indian Immunological Society Conference held at AIIMS, New Delhi during 28-31 January 2007.

Dr. Motilal Dash was invited to attend the training programme on “Right to Information” organized by the Public Affairs Centre, during 21–24 January 2007 in Bangalore and “Facilitator cum Evaluator’s Workshop” on 31 January 2007, organized by CAPART, Jaipur.

Prof. C.B. Gupta delivered two invited lectures: ‘Aanuruppen- Binomial Method to find n^{th} powers

of Integers and Rational Numbers' and 'Simulation Techniques' at JVMGRR Post Graduate College, Charkhi Dadri, on 24 and 25 January 2007. He also delivered a lecture on "CPM-PERT and Applications of Simulation Techniques", at KAIM, Charkhi Dadri, during 22–24 February 2007.

Dr. Venkiteswaran, G. delivered a talk on "Monte Carlo Simulation for Polymeric Liquids" at the Indo-French Collaboration Meeting - ARCUS Project at IISc Bangalore on 21 February 2007.

Dr. Kumar Neeraj Sachdev chaired a session on "Moral Values and Human Nature" in the "National Seminar on Moral Goodness and Human Nature", held at Punjab University, Chandigarh during 14-15 March 2007.

Prof. Navneet Goyal delivered two invited lectures on "Data Mining Techniques" at the Indian Agricultural Statistics Research Institute, New Delhi on 23 March 2007.

Dr. Sangeeta Sharma acted as a resource person in a 2-day Workshop on "Developing Communication Skills for Teachers" on 30 March 2007 at the ICFAI (Tech.), Jaipur and also chaired a session in the same workshop. Dr. Sharma was also invited as a resource person for a 5-day Workshop on "Research Methodology and Data Analysis using SPSS" at the University of Petroleum and Energy Studies, Gurgaon during 10-14 July 2007. She dealt with Research Report Writing and Interviewing skills.

Dr. Pushp Lata delivered UGC extension lectures on "Group Discussion and Interviews" at Chaudhary Devi Lal University, Sirsa during 7-9 April 2007. She acted as a resource person and delivered a lecture in the Workshop on "Effective Communication for Teachers" at ICFAI, Jaipur held during 29 March 2007.

Dr. Ajit Pratap Singh chaired a session on "Issues in waste disposal through landfills-regional approach, transfer station and transportation" at the International Workshop on "Best Practices in Solid Waste Management: Sharing of Experiences". As an invited member Dr. A P Singh attended the board meeting of the International Solid Waste Agencies (ISWA) Copenhagen, Denmark held at Jaipur during 27-28 April 2007.

Prof. Meenakshi Raman, on invitation, conducted a 2-day workshop on 'Strategies and Skills for Success in Interviews' for the students of Anna University, Trichy organized by its Professional Education Development Center during 21-22 June 2007. Prof. Raman held a lecture-cum-discussion session on Emotional Intelligence: A Cornerstone of Organizational Leadership ' at the 2-day workshop

organized by ICFAI(Tech) Jaipur during 29-30 March 2007. She chaired a session on 'Technology in Teaching English' on 14 July 2007 at the National Conference organized by PSG College of Technology, Coimbatore.

Dr. Kamlesh Kumar delivered a lecture on "Reinforced Earth" at EIL, New Delhi on 7 July 2007.

Dr. N. Rajesh presided as the chief guest and delivered the keynote address on the topic "Green Chemistry" at the seminar "Meet the Scientist" held at Tamilnadu Science and Technology Centre, Chennai on 10 July 2007.

Dr. N.N. Sharma was invited to attend the Workshop on "Indian Nanoelectronics User Programme (INUP)" at IISc, Bangalore during 8 – 10 April 2007.

ACHIEVEMENTS

1. **P. Karthika**, a third year student of EEE at BITS, Pilani, was among the 75 finalists from 21 countries across the globe who participated in the week-long global leadership programme held at the Global Leadership Institute in New York City in July 2007.



In the initial phase of the competition, 150 students all pursuing their second year of study from 90 top ranked universities in 19 countries were selected. Out of 29 selected Indian students, six were from BITS, Pilani:



- Rajat Bansal, Abhay Bhaskar, P.Karthika, Vivek Gupta, Tushant Singh and Manav Preet Singh** who were all invited to Mumbai for the award ceremony. A Scholarship amount of USD 3000 was given to the selected students and then, they were further interviewed for the next level to select a group of fifteen to receive an all-expense-paid trip to represent the group at the Global Leadership Institute in New York City in July 2007.
2. **Mr. Krishna Mahesh** (ID No. 2003A3A7678) & **Mr. Ratna Sandeep S** (ID No. 2003A4A7346) have been awarded the GE Foundation Scholarship for the period 2006-2008. This Scholarship covers the tuition and all other expenses of the student for the said period.
 3. **Ritesh Agarwal**, ID No. 2005A3PS056, was among the 5 Indian students selected to participate in the 'Asia Pacific Students' Entrepreneurship Society (ASES), Summit 2007' organised by Stanford University during 8-14 April 2007. The summit is an annual, week long conference focusing on issues of entrepreneurship in Silicon Valley, the Asia Pacific and beyond. In all, 32 delegates were chosen based on the candidate's leadership experience and potential, and their interests and achievements in entrepreneurial activities.
 4. **Mr. M.R.K. Kishore** (2000A5TS708) received the best B.Pharm. Graduate Gold Medal and **Mr. Ravi Shankar** (2003K108443) was awarded the Late Mr. CNVHB Gupta Memorial Best M.Pharm. Graduate Gold Medal for the academic year 2006-2007.
 5. **G. Swetha** (2004A2PS746), **S. Sri Devi** (2004C2PS794) and **P. Sadhana Alekhya** (2004C6PS408) have done an excellent work in the library under the Earn While You Learn Program. They catalogued over 3000 books during their spare time in last semester. On 19th January 2007, Prof K E Raman, Deputy Director distributed certificates to them.
 6. **Prof. R.N. Saha** has been appointed "Honourary Adviser" by Ipca Laboratories Ltd for their Formulations and Development Projects and problems. He has also been appointed Scientific Consultant and Resource Person by Arab School for Science and Technology, Syria for Workshop on "Advances in New Drug Delivery Systems" to be held at Damascus, Syria during 9-12 December 2007 for participants from various Arab countries.
 7. **Prof. A. K. Sarkar** has been appointed as a member of the steering group on Vision Bihar: Meeting Higher and Technical Education Deficit by the Planning and Development Department, Government of Bihar. He has also been nominated in the Executive Committee of the National Rural Roads Development Agency (NRRDA) by the Ministry of Rural Development, Government of India.
 8. **Prof. Anil Bhat** has been awarded the "Shiksha Rattan Puraskar 2007" and a 'Certificate of Excellence' by the India International Friendship Society. The awards were conferred on him by Dr. Bhisham Narain Singh, a former Governor of Tamil Nadu & Assam and Shri. Krishnamurti, a former Chief Election Commissioner of India in a function organized in New Delhi on 12 July 2007 and was attended by a gathering of academicians.
 9. **Prof. Meenakshi Raman** received the British Council Award for the Best Paper Presenter for her paper "Using Appropriate Verbal Cues in Business Conversations in English" at the 2nd International and 38th Annual Conference of ELTAI held at Crescent Engineering College in Chennai during 9-10 February 2007. The award included a certificate and Rs.3000. She also received the Ray Tongue Scholarship award (£300) from IATEFL, UK for presenting her research paper at the IATEFL conference held at Aberdeen, Scotland.
 10. A successful incubation of the Technology Business Incubator, Mobile Medics (a traveling healthcare service for rural India) launched its program on 25th Feb. 2007. At present the Mobile health care service is accessible to a population of 40000 people in 10 villages around Pilani.
 11. Conquest, a unique International Business Plan competition organized by CEL under the auspices of NEN, Mumbai is now listed on the directory of Global Business Plan Competitions. This will allow more people to access this information and participate in the coming years.



12. The technology of “ new oral stable combination formulation of two antihypertensive drugs designed by the Pharmacy Group of the Institute has been transferred to Ipca Laboratories Ltd, Mumbai on 31st July. Product will be launched to the market shortly.

13. Significant contributions by several alumni of BITS, Pilani have been recognized both nationally and internationally. Notable among them are:

* **Dr. Krishna C Saraswat** received the Techno Visionary Award by Indian Semiconductor Association and VLSI Society of India (citation and \$12,500) for his outstanding research work and contributions in nano technology, three

dimensional integrated circuits technology, single water manufacturing for a micro-factory and thin film technology for VLSI inter-connections and contacts.

* **Dr. Pingali Prabhu L** has been inducted into the US Academy of Sciences, a society of distinguished scholars engaged in scientific and engineering research.

* **Shri G.K. Pillai** has assumed the office of Chairman-cum-Managing Director of Heavy Engineering Corporation Ltd.

* **Mr. Yogesh Agarwal** has taken over as IDBI Chairman.

* **Mr. Kesar Kothari** received Ajman Industrial Excellence Award from Elfrit Arabia.

SIGNIFICANT PROJECTS

| S. No. | PROJECT TITLE | PRINCIPAL INVESTIGATOR | AGENCY | SANCTIONED AMOUNT |
|--------|--|--|--------------------------------------|-------------------|
| 1. | (i) Studies on adsorption process for the removal of metal ions from waste water and volatile organic compounds from air by using suitable adsorbents | Dr. B V Babu (Chemical Engineering Group) | UGC | Rs. 7,11,027 |
| | (ii) Studies on Biomass Gasification | | K.K. Birla Academy Research Grant | Rs. 3,00,000 |
| 2. | Response and micromechanics based design of engineered cementitious composite structures | Dr. S B Singh (Civil Engineering Group) | DST | Rs. 15,13,680 |
| 3. | Design and development of static sunshade for thermal corn fort inside the buildings | Dr. Rajiv Gupta (Civil Engineering Group) | UGC | Rs. 9,86,400 |
| 4. | Investigations aimed at producing diamond like carbon films with broad range of dielectric constant and extremely stress values | Dr. Rajnish Sharma (EEE Group) | DST | Rs. 10,92,000 |
| 5. | Departmental Research Support (Innovative Product Design Development) | Group leader (Mechanical Group) | SAP, UGC | Rs. 38,00,000 |
| 6. | Design and synthesis of inhibitors of various enzymes of M. tuberculosis like DNA Gyrase and Topoisomerase-1 (Under fund for a Virtual Center for Excellence in Tuberculosis Research with IISc Bangalore) | Dr. D Sriram (Pharmacy Group) | DBT | Rs. 39,56,000 |
| 7. | Master Programme in public Health (under Innovative Programme) | Group Leader (Pharmacy Group) | SAP, UGC | Rs. 29,00,000 |
| 8. | Design of gastro-retentive controlled release oral formulations for selected drug | Dr. R.N. Saha (Pharmacy Group) | Ipca Laboratories Ltd, Mumbai | Rs. 12,00,000 |

| S. No. | PROJECT TITLE | PRINCIPAL INVESTIGATOR | AGENCY | SANCTIONED AMOUNT |
|--------|---|---|--|----------------------|
| 9. | Design, synthesis and neuropharma-cological evaluation of novel Serotonin type-3 (5ht3) receptor antagonists as anti-depressants, anxiolytics, and in the management of cancer chemotherapy–induced nausea and vomiting | Dr. R. Mahesh (Pharmacy Group) | UGC | Rs.8,47,000 |
| 10. | Design and synthesis of newer Gaba analogues for testing CNS disorders | Dr. P. Yogeshwari (Pharmacy Group) | UGC | Rs. 8,11,800 |
| 11. | Design of novel drug delivery system technology | Dr. R.N. Saha (Pharmacy Group) | Ipca Laboratories Ltd, Mumbai | Rs. 8,00,000 |
| 12. | Tiny 6 (Sensor network, network / IPv6) | Dr. Rahul Banerjee (CSIS Group) and Dr. Laurent Toutain | Ministry of Foreign Affairs, Govt. of France | 82000 Euros |
| 13. | A Systems Biology Approach - towards understanding severe Malaria with special reference to the Transcriptome and Proteome of the parasite and the host | Dr. A.K. Das (Biological Sciences Group) | DBT | Rs.1,88,06,000 |
| 14. | Departmental Research Support (SAP) | Group Leader (Biological Sciences Group) | SAP,UGC | Rs. 31,50,000 |
| 15. | Genetic basis of alcohol induced pancreatic disorders | Dr. Suman Kapur (Biological Sciences Group) | ICMR | Rs.19,89,983 |
| 16. | Induction of Sornaclonal variation in a medicinal plant Chlorophytum Borivillianum and biochemical characterization of Somac Lones | Dr. Suman Kapur (Biological Sciences Group) | UGC | Rs. 6,00,000. |
| 17. | Departmental Research Support (SAP) | Group Leader (Chemistry Group) | SAP, UGC | Rs.35,00,000 |
| 18. | Design, synthesis and biological studies of novel cationic porphyrin hybrids as potential anticancer agents | Dr. Dalip Kumar (Chemistry Group) | DST | Rs. 23,91,000 |
| 19. | Novel safety catch linkers for solid phase synthesis of organic compounds with potential medicinal applications. | Dr Anil Kumar (Chemistry group) | DST | Rs.17,00,000 |
| 20. | Transition-metal catalyzed reactions of Lodonium Ylides | Dr. Dalip Kumar (Chemistry Group) | UGC | Rs.7,23,600 |
| 21. | Study of the extraction behavior and speciation of Chromium using various long chain amines and its applications in the treatment of electroplating waste water | Dr. N. Rajesh (Chemistry Group) | UGC | Rs.3,80,600 |
| 22. | Rural community strategies for managing the economics & social impact of climate change | Dr. M L Dash (Humanistic Studies Group) | Arkleton Trust, London | 5000 Pounds |
| 23. | Effect of ageing on access to transport | Dr. Nirupama Prakash (Humanistic Studies Group) | Newcastle University, UK | 3000 sterling pounds |

BITS Consultancy for Engineers India Limited

BITS, Pilani faculty members are currently providing the Phase-I of consultancy work starting March 2007 in the form of training and problem solving for the employees of Engineers India Limited, New Delhi, at their company premises in various areas of advanced level engineering and the current trends in them as

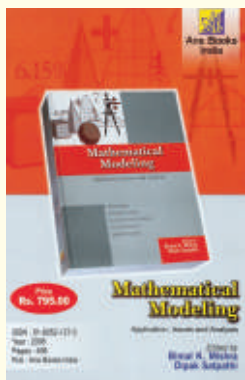
related to design, construction, control and maintenance of petroleum refineries and oil transportation. The coordinators of this programme are Prof. Ravi Prakash and Prof. Srinivasa Prakash Regalla, and the team of resource persons so far consisted of Dr. S. B. Singh, Prof. V. K. Chaubey, Prof. Sanjoy Roy, Prof. Vimal Bhanot, Dr. Ajit Pratap Singh, Dr. Manoj Kumar, Mr. Akhilendra Singh, Dr. Kamlesh Kumar and Dr. Ch. Hanumanth Rao.

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.

| NAME | GROUP | JOURNAL / MEMBER DETAILS |
|-----------------------|----------------------|--|
| Prof. BV Babu | Chemical Engineering | <p>Reviewed a book entitled Fundamentals of Chemical Engineering & Technology', for Oxford University Press.</p> <p>Editorial board member of the journal Energy Education Science and Technology, Research Journal of Chemistry and Environment, and International Journal of Computer, Mathematical Sciences and Applications.</p> <p>International Programme Committee Member of international conferences (KCC-2007, Florida, USA, 8-11 July, 2007; MEI-2007, Orlando, USA, 8-11 July, 2007.</p> <p>Reviewed nineteen articles published in nine International Journals—Chemical Engineering Science (Elsevier), Industrial & Engineering Chemistry Research (ACS), Environmental Engineering Science (Mary Ann Liebert Inc.), Journal of Analytical and Applied Pyrolysis (Elsevier), Current Science (IASc), Waste Management (Elsevier), Progress in Energy and Combustion Science (Elsevier), International Journal of Environment and Waste Management (Inderscience), IEEE Transactions on Systems Man and Cybernetics-A (IEEE).</p> |
| Dr. Ajit Pratap Singh | Civil Engineering | <p>Executive member of the Indian Association for Solid Waste Management (IASWM), New Delhi, which is a national member (Indian Chapter) of the International Solid Waste Agencies (ISWA), Copenhagen, Denmark.</p> <p>Reviewed two papers for International Journal of Environmental Management, Elsevier.</p> <p>Reviewed a research paper for International Journal of Water Resources Management, Springer.</p> |
| Dr. A Vasan | Civil Engineering | <p>Reviewed books titled "Numerical Methods", and "Engineering Hydrology" brought out by Oxford University Press</p> |

| NAME | GROUP | JOURNAL / MEMBER DETAILS |
|-----------------------|-----------------------|--|
| Dr. S B. Singh | Civil Engineering | Reviewed a book entitled RCC Design by Limit State Method for Elsevier Publisher, India. |
| Dr. Rajnish Sharma | EEE | Reviewed the book entitled Linear Integrated Circuits for McGraw-Hill Education (India) Limited |
| Dr. Hari Om Bansal | EEE Group | Reviewed a book entitled MATLAB for Pearson Education, Delhi. |
| Prof. R.K. Mittal | Mechanical | Reviewed 2 papers for International Journal of Solids and Structures, Elsevier. |
| Dr. N.N. Sharma | Mechanical | Reviewed article, "Global Asymptotic Stability of Robot Network" for IEEE Tr. Systems Man & Cybernetics-B |
| Dr. D Sriram | Pharmacy | Reviewed articles for Journal of Medicinal Chemistry, Bioorganic Medicinal Chemistry Letters, European Journal of Medicinal Chemistry |
| Prof. Anil Bhat | Management | Reviewed 6 papers for the Journal 'Academy of Management |
| Prof. Ashis Das | Biological Sciences | Reviewed articles for Acta Tropica, Elsevier |
| Dr. Dalip Kumar | Chemistry | Reviewed the manuscripts for Journal of Sulfur Chemistry (Taylor & Francis), European Journal of Medicinal Chemistry (Elsevier), and Combinatorial Chemistry (American Chemical Society). |
| Dr. N Rajesh | Chemistry | Reviewed an article for the Elsevier journal entitled Journal of Colloid and Interface Science. |
| Dr. Anil Kumar | Chemistry | Reviewed a paper for the journal "Bioorganic and Medicinal Chemistry" (Elsevier Publishers, UK). |
| Dr. S.K. Saha | Chemistry | Reviewed a research and development project proposal submitted to Department of Science and Technology, Government of West Bengal. |
| Prof. Meenakshi Raman | Languages | Member of the Editorial Board of International journal of Communication for the Year 2007-2008. |
| Dr. Sangeeta Sharma | Languages | Coeditor AIMSiNEWS, Association of Indian Management Scholars International, yearly newsletter; Volume3, Number1.2007. Member of Editorial Review Board of AIMS International Journal on Management (AIJM). Reviewed Papers for the 10 th International Conference of the Society of Global Business and Economic Development with the theme of Creativity and Innovation: Imperatives for Global Business and Development. |
| Prof. Arya Kumar | Economics and Finance | Reviewed more than 10 research papers for Business Perspective-Journal brought out by Birla Institute of Management and Technology, Greater Noida. |

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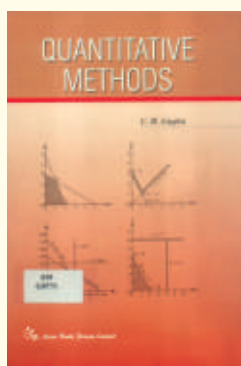


Mathematical Modeling, Ane Books India, New Delhi, 2007, Bimal K. Mishra and Dipak Satpathi

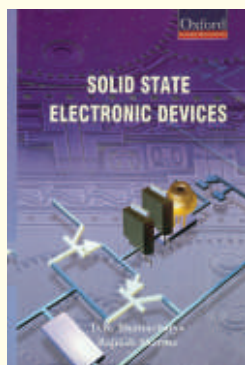


Frozen Ripples (A collection of poetic compositions), Future Publishers, Howrah, 2007, Krishna Mohan and Sangeeta Sharma

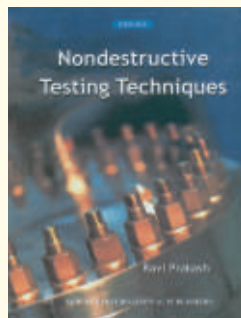
Quantitative Methods, Asian Books Pvt. Ltd., New Delhi, 2007, C B Gupta



Emerging Mechanical Technology-Macro to Nano, RPS Press, Chennai, India, 2007, R.K. Mittal and N.N. Sharma, Editors.



Solid State Electronic Devices, Oxford University Press, New Delhi, 2007, D. K. Bhattacharaya and Rajnish Sharma

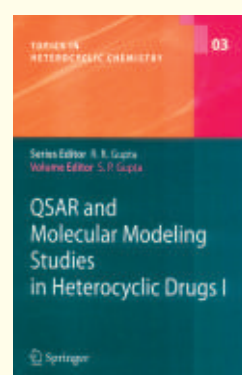


Nondestructive Testing Techniques, New Age International Publishers, 2007, Ravi Prakash

Medicinal Chemistry, Pearson Education, Delhi, 2007, D. Sriram & P. Yogeewari



QSAR and Molecular Modeling Studies in Heterocyclic Drugs II, Springer, 2007, S.P. Gupta, Editor



JOINING HANDS

Memoranda of Understanding

Sustaining its collaborative efforts, BITS signed several MoUs with Institutions in India and Abroad:



- With the Indian Space Research Organization on 11 December, 2006 to develop and use modern space technology for promotion of Education & Training etc.
- With York University, Canada, on 15 January, 2007 for exchange of faculty members and students on a reciprocal basis, publications, research materials, newsletters, etc. and joint projects related to research, teaching, faculty development and service.



- With the University of Ontario, Canada on April 1, 2007 for annual exchange program that will include a maximum of 50 Canadian and Indian students in total.

BITSAA Silver Jubilee Celebrations

The Silver Jubilee reunion for those alumni of 1976-81 batch who had missed the event held during October was organized once again during 26-28 January 2007 at the Institute. Apart from serving as a meeting point to share the reminiscences associated with their Alma Mater, the Silver Jubilee Celebrations

have also been instrumental in the exchange of professional knowledge between the alumni and the Institute and in the overall development of the Institute. During the Silver Jubilee Celebrations, academic discussions, seminars, campus-tour and a visit to Pilani town, cultural programmes, informal games and interaction with students and staff members were arranged.

PROJECT EMBRYO

Project Embryo has come a long way from its humble beginning last year. The project has gathered good momentum and is ready to throttle ahead by expanding to other campuses (BITS Pilani-Goa Campus). Embryo Club, over the year has organized 40 lectures in various disciplines along with lectures from dignitaries like Mr. Vivek Paul (Partner, Texas Pacific Group), Mr. Raju Reddy (Founder and CEO, SierraAtlantic), Chandra Bhople (Director, Business Development, Osellus) and various others. Project Embryo was extended to Goa campus with the inaugural lecture by Mr. Jayan Ramankutty (Serial Entrepreneur) which was also attended by Vice Chancellor Prof. L K Maheshwari and Prof. T C Goel, Director BITS Pilani Goa campus.

Wall Street Club

Wall Street Club@BITS-Pilani is India's first investment club by students, for students and of students at the undergraduate level with a vision to learn and master the mantras of the stock market through exploring the dynamics, opportunities and risks embodied in the domestic stock market. The Club encompassed a myriad of activities such as online talks by eminent BITS alumni in finance like Madhusudan Somani, Venu Pallaparthi, Vivek Paul etc, simultaneously at both Pilani and Goa campuses, interaction with the college communities, and of course investing in the capital markets.

The renowned "Reuters" international news agency has tied up with the Wall Street Club, BITS Pilani to start structured certificate courses in basic finance. The club has decided to start an international network of student run investment clubs in universities across the globe. It will start off with a national network initially and has plans to start off Wall Street Clubs at BITS-Goa, SRCC Delhi and IIM-B in the first year.

Center for Entrepreneurial Leadership

The Centre for Entrepreneurial Leadership celebrated the Entrepreneurship Week India during 24 February - 02 March 2007. The objective was to promote the spirit of Entrepreneurship by organizing a wide range



of activities which would cater to students of varied interests to bring out their creativity and inculcate entrepreneurial traits in them. Dr. B.P. Agarwal, internationally recognized for rapid commercialization of technologies and an invited speaker at United Nations Development Projects on management of innovations gave a talk on Management of Innovations and Entrepreneurship. He focused on the need for coming out with innovative solutions to critical problems and emphasized the need for inculcating entrepreneurial culture since childhood to strengthen the economic fabric of a nation. Some of the other activities conducted were the Intra-BITS Business Challenge, 'Epsilon'; the Crazy Business Idea Contest, CEL's BITS Big Bout edition, the 'Think-tank' quiz and Stimulus.

Conquest 2007

With its slogan of "Innovate... Inspire... Conquer", the Conquest 2007—the international business challenge contest—was organized by the Centre for Entrepreneurial Leadership, BITS, Pilani along with its associate partnership of National Entrepreneurship Network (NEN), at the Institute during 7-8 April 2007. Five innovative business plans, Soltech by VIT, Pune; Hayagriva by BITS, Pilani; Transtrack by NUS, Singapore; Sultans by ITM, Mumbai; and GPS Locatron by IIT, Madras amongst 168 plans competed for the coveted 'winner' and 'runner' positions of this year's Conquest. VIT, Pune was declared the Grand Winners whereas NUS, Singapore became the Runners Up. The other three teams were



declared the Finalists. Mr. Ashmeet Sidana, a Venture Capitalist from Foundation Capital, California, USA and Mr. Sujit Panigrahi, CEO, Convergent Technologies judged the teams through various rounds of their presentations. Commenting on this year's participation, Mr. Sidana said, "I see plans from all over the world everyday and I must say that the quality of participation was very impressive. The teams were very much stronger and well prepared to plunge into the business world than what we normally expect from teams at early stages".

INTERFACE 2007

The All India Management Convention—INTERFACE 2007, was organized by the Management students of BITS Pilani during 9-11 March 2007. The theme for this year's convention was "INGENIUM", with the tagline, talent— power to choose, to excel and to respond. Students from business schools across the country participated in different events like a panel discussion, Biz Quiz hosted by Mr. V. V. Ramanan, Young Manager of the Meet, Paper presentation and a special event, "Clutters and Clatters" to test the creative skill and influencing power of the participants.



Mr. Rakesh Kumar, Director, Braahmam Net Solutions Private Limited, who was the chief guest of the function, said that transparent and impartial HR principles and practices in an organization were a must for retaining talents and information technology had proved to be a boon in this regard. Prof. L. K. Maheshwari, Vice-chancellor, BITS Pilani, talked about the importance of Talent Transformation, Talent Sharpening and Talent Creation to meet the emerging challenges of corporate world. Mr. Baru S. Rao, CEO, Capgemini, India, the keynote speaker of the inaugural function, in his talk on "People: The DNA for Corporate Excellence" said that the prime goal of any corporate sector is to earn money by excelling in its product, process, service and distribution.

APOGEE 2007

The five-day long 25th All India Academic Festival of BITS Pilani, APOGEE 2K7 (A Professions Oriented Gathering Over Educational Experience—2K7) was held during 21 – 24 March 2007. Inaugurating APOGEE 2K7 Mr. Vinod Sahani, CEO, Bharti Retail Pvt Ltd. and an alumnus of BITS Pilani (1975-80 batch), said that to make India the second largest economy in the world we need to identify opportunities and put our resources into



use to make it a reality. Prof. L. K. Maheshwari, Vice-chancellor, BITS Pilani, in his address congratulated Mr. Vinod Sahani for his exemplary achievements and said that he was a role model for BITS students. Prof. Maheshwari discussed the significance of this year's theme of APOGEE—DHITI (Reflecting Intelligence)—by tracing its origin in the ancient Indian literature and advised the students to understand the meaning of this word in true spirit.

APOGEE provides a platform to bring out the intellectual potential and innovative & creative ideas of the students. In this five day long function Associations of different disciplines put up their ideas on display and also organized seminars and lectures by eminent personalities. A large number of students from institutions across the country and six students from abroad participated in different events organized in this function.

Chemical Engineering Association presented 23 projects. Exhibits pertaining to Reactive Distillation, Removal of MEK Using Biofiltration, Radio Wave Absorbing Paint, PVA Membrane Application, and Geothermal Power Generation were showcased. The Association also conducted a quiz contest and events on Process Flow Design.

Civil Engineering Association presented 17 projects on various topics such as Rubberised Pavement Design, Advanced Transportation System, Energy Efficient Underwater



transportation, Pavement Overlay. Civil War and The Crazy Bridge Design Contest were conducted by the Association.

Electrical and Electronics Engineering models included various projects such as Aurora, BITSIMO-The Semi Robot Assistant, Cubot,



Mankey, MC² Smart Pen, Smart Home, Blindman's Keyboard. Telerover, Tracking Bug. EEE Association organized various Contests on Digital Design, Spice Simulation, MATLAB Programming, Energy Conversion etc. The association won several prizes under various categories.

Mechanical Engineering Association's 33 projects included some award winning projects such as Hybrid Car, Natural Air Conditioning, Heap Cultivations Technique, Eustachian Microphone,



Dual Purpose Refrigerator and Spent Pickle Acid Regenerating Process. Events on Urban Technology and Automobiles were organized by the association.

Pharmacy Association primarily dealt with exhibits related to effect of Ultrasound on Enzymes, Non- invasive Method for Blood Glucose



Estimation, G-Watch, Skin Iontophoresis, Epilepsy and its Treatment, Physical Testing Kit.

Computer Science Association came up with several innovative projects dealing in the area of General Purpose Computation on Graphics Processing Units, SMS operating system, PC



remote pro and Automation & Customization of Windows XP installation and OS in your Pocket. Various competitions and quizzes were held in the area of C Programming, Team Programming in Java, Gaming, etc.

Electronics and Instrumentation Association presented various projects on Instrumentation for Structural Cracks, Remote Water Monitoring



System, Instrumentation for finding out oil content in Mustard Seed. A quiz contest in electronics and events on embedded systems, MATLAB and Instrument Design were also organized.

Biological Sciences Association displayed projects in the areas of DNA Electronics, Karyotyping, Possible RNA Interference Strategy in HIV Infection, Use of Immunotoxins to Treat



Cancer, Formulation of Food for Diabetics. Amoeba Wars, and Eureka events were also organized by the association.

Chemistry Association participated actively in APOGEE-07 and displayed 15 project works related to various areas of Chemistry. Some of these projects are: I.C.Can, Metamaterials,



Cryogenic fuel storage, Hydrogen fuel engine, Waste paper sorting system, Toxic dye removal system, Self cleaning surfaces, Food contamination sensors and Water proofing of paper.

Whodunnit? was a crime scene investigation event conducted by the association.

Economics and Finance Association presented the projects related to Stock Screening, Neural Network Application in Finance, IPO Meter, and Pattern Recognition of Currencies. The association conducted events like FOREX, Business Quiz and the Market Simulation.

Mathematics Association focused on emerging areas such as Application of Graph Theory in Social Sciences, Earthquake Prediction using Fuzzy Logic, Speech recognition using Artificial Neural Networks, etc. Xtrememaths and SUDOKU competitions were organized by the association.

Physics Association organized various events such as the Eureka Lab Quiz and Sci-Fi Science Quiz besides exhibiting fourteen projects in some of the core areas of physics. Ranging from Detection of Gravitational waves to Small Scale Security System, the projects had solutions to several intriguing problems.



To mention a few: Alcohol-based sensor, Active noise cancellation, Simulation of ISING model and Site Relocation Theory.

Engineering Technology Association with its theme Techno Dhiti exhibited projects such as renewable energy house, bottling plant simulation using PLC, materials manager, e-waste, sterling engine, etc.

Information Systems came up with new ideas related to Cell Phone Advertising System, Blue Tooth Library to search from the database hosted on the server, Task Schedule for Windows, Automated Contour Tracing, BITS Online Notice



Board, Road Traffic Management etc. It also organized events on Bug Handling and Code Rash.

Languages and Humanistic Studies Association showcased projects carried out in the areas related to stress management, emotional intelligence, etc.

SAE Collegiate Club, BITS, Pilani organized various events during APOGEE including: **UDAAN** - a professional Air Show exhibiting maneuverability events of the radio controlled models in the historical Birla Gliding Club; projects build with the help of a workshop conducted under the guidance of Ex-Pilot, Mr. Kirti Prakash and **AEROGAMI** – a paper plane competition organized to combine fun with learning with the help of small paper models.

First Time Film Makers (FTFM) Group conducted a workshop on Digital film making. The aim of the workshop was to teach budding film makers the fine aspects of video-shooting and digital photography.

ONWARD

Professional Development Centre

The Professional Development Center, inaugurated on 27 December 2006 in Bangalore, is a unique initiative by BITS, Pilani in the area of Microelectronics to conduct educational and



research programs. The center will offer courses in Microelectronics with hands-on training in the state-of-the-art EDA tools so as to upgrade the skills of VLSI Professionals. Each course will be a complete unit with appropriate credits awarded to all participating professionals. The training programs conducted in this center will be modular in nature and will eventually develop into degree programs if the sponsored employees take the required number of modules. Faculty drawn would be from BITS, Pilani and other reputed universities, Industry professionals from India and abroad. Prof. Krishna Saraswat, Department of Electrical Engineering, Stanford University, USA, delivered two lectures (i) Performance Limitations of Cu/low-k Interconnects and Possible Alternatives and (ii) 3-Dimensional ICs: Motivation, Performance Analysis and Technology during the one day workshop conducted at the centre on 2 May 2007.

Mobile Medics Healthcare Services

The Mobile Medics Healthcare Services, an initiative, first of its kind in Rajasthan and a brainchild of TBI BITS Pilani launched its pilot operations on 28 February 2007 to provide healthcare services to rural India. At the inaugural function, Prof. L.K. Maheshwari



released the M.O.A and A.O.A. of the company. A presentation titled "Mobile Medics-The story so far" was delivered to the BITS community including faculty and students. According to Mr. Kavikrut, its CEO, the mobile healthcare service is now accessible to a population of over 40000 in 10 villages around Pilani.

CARING BEYOND OUR WALLS

Centre for Women Studies (CWS)

UGC Centre for Women Studies at BITS, Pilani was involved in several activities related to women empowerment and their social upliftment. Some of the notable activities are:



A series of Workshops on Confidence Building for Nurses; a two day training program at Advocacy Center, Jherli near Pilani for village volunteers working as knowledge workers ; a lecture on Livestock Production Management for Rural Women by Dr. Rajendra Singh, Sr. District Extension Specialist (Associate Professor), Hisar Agriculture University, Hisar in Jherli ; a training program on embroidery, rope-craft and crochet to the rural women in Dhindhua village, near Pilani; a computer literacy training program for 13 rural women during January – July 2007; a training center for stitching and tailoring and a child care center; two street plays, *Aawaz and Hatja Tau naachn de*; and the completion of a study on "Prevalence of Anemia caused by Iron-Deficiency among Adolescent Girls at BITS, Pilani and its Impact on their well being" during October, 2006 - February, 2007

NSS

NSS BITS Pilani organized a Blood Donation Camp at the Students' Activity Centre on 10–11 March 2007. More than 1000 units of blood units were donated by the enthused boys, girls and staff members of BITS. This semester approximately fifty NSS Programme Officers of various colleges of Jhunjhunu and Sikar districts got trained at the regional workshop of NSS Programme Officers organized at BITS Pilani during 24-25 February 2007. NSS also conducted the regular activities related to health care, education and environment in the nearby villages.



Spoken English Classes for housewives

Enthused by the encouraging feedback from the participants, Kalyani Club, Vidya Vihar organized spoken English classes for the second batch of 20 ladies during 30 January - 03 April 2007. Classes were conducted by Languages Group faculty members and ladies from BET and BITS campus were the participants.

MyIndia

This semester 'My India' took up several projects with the aim of providing employment opportunities especially to women in rural areas. The forum received guidance and financial assistance from BITSUNAMI, ANZ and PRATAM for its events in



APOGEE and also for setting up SHGs. The activities of My India during this semester include:

Rural Technology Club to work on feasible projects regarding livelihood to the needy and poor.; Self Help Groups project in the Bhaas village; Technovision, E-Solv and the India Quiz conducted during APOGEE ; Chapters started in Hyderabad, Vijaynagaram, Kakinada and Warangal.

CREATIVE ZONE

Sangamam 2007

The 11th edition of SANGAMAM, the annual festival of classical music and dance was organized during 23-25 February 2007 by Ragamalika, the classical dance and music club of BITS, Pilani.

The festival features eminent artistes from all over the country performing for a cosmopolitan audience of over 2000. Prof. L.K. Maheshwari, the Vice-Chancellor, inaugurated the festival while Prof. K.E. Raman, the Deputy Director (Admn.) released the Ragamalika souvenir DHWANI.

The festival began with breathtaking host performance, which featured a dance ballet



choreographed and orchestrated by the members of Ragamalika. The ballet was a portrayal of the Ashta Nayikas in Classical Indian Literature. This was followed by a vocal concert by Sangeetha Kalanidhi Shri T V Sankaranarayanan who took the audience to the world of music built by the stalwarts in the field. The second day featured a Jugal Bandhi concert by the renowned chitra veena artiste Shri Ravikiran and the celebrated flautist Shri Pravin Godkhindi. The concert was sketched with lively conversations between the two instruments which enthralled the audience. The artiste to take the stage on the last day was Smt Ananda Shankar Jayant, who presented a brilliant kuchipudi concert and followed it up with a Bharatanatyam ballet along with four of her disciples. This was a portrayal of the NAVARASAS with the dancers bringing out the essence of the various rasas with body language and adavu sequences rather than the traditional way of portraying bhava.

MATRIX

MATRIX - a forum for radical information exchange-continued its tradition of organizing intellectually stimulating book reviews, debates, and various competitions. The subject matter of the books reviewed this semester ranged from science fiction to management to literature and included: "2201: A Space Odyssey" by Arthur C Clarke, "The Fortune at the Bottom of the Pyramid" by C. K.



Prahalad, "The Google Story" by David A. Vise and Mark Malseed, "An Equal Music" by Vikram Seth. The book reviews were followed by engaging discussions in which both students and faculty participated. Madhurjya Banerjee, an alumna of BITS, was on the panel for the review of the book "The Google Story". The first issue of the magazine "Moving Thoughts" was brought out at the end of the semester. The theme of the well received debut issue was book reviews. Prof. G. Raghurama, Deputy Director (Academic), presided over the valedictory function of MATRIX on 26 April 2007.

Spic Macay

Spic Macay commenced its activities with a dazzling Odissi performance by Ms. Kavita Dwivedi on 30 January 2007. The dancer enthralled



the audience with her scintillating performance. This was followed by an exhilarating Bharatnatyam performance by Ms. Priyadarsini Govind on 4 Feb 2007, which was the second program in the

Lecture Demonstration Series of the Rajasthan chapter of Spic Macay. She began the concert with a short sketch of Bharatnatyam including the historical background and the various parts of this art form. This was one of those performances which opened the mind and heart to the full artistic potential of classical dance.

Inbloom

The inter-hostel cultural evening 'Inbloom' was celebrated on 17 February 2007 in the auditorium. All the eleven boys' hostels and one girls' hostel enthusiastically participated in the event by showcasing their musical, dance and thespian skills. Organized by the BITS student union, it was



a competition among the various hostels on stage for the title the cultural portrait of BITS. The event attracted a large number of audience who enjoyed every moment of this cultural evening. At the end Ram Bhawan and Vyas Bhawan were jointly declared as winners and Meera Bhawan got the runners up position.

INTRODUCING NEW FACULTY

| Name | Designation | Discipline | Research Areas |
|----------------------|------------------|------------|---|
| Ms. Rajitha K | Visiting Faculty | CE | Geographical Information System |
| Dr. Ravi Kant Mittal | Asst. Prof. | CE | Geotechnical Engineering |
| Mr. Deepak Bhunia | Lecturer | CE | Structural Engg |
| Dr. Selva Kumar M | Lecturer | CE | Travel Demand Modeling, Intercity Mode Choice Analysis Road Safety |
| Dr. A K Mukherjee | Lecturer | EEE | Charge Transport in conjugated Polymers and Organic Electronics Devices, Interface study between Metal and Conducting Polymers. |
| Mr. J V Raghavendran | Lecturer | PHA | Screening of Pharmacological Evaluation of Drug Against Animal Models of Epilepsy and Neuropathic Pain |
| Dr. Ajay Kumar Sah | Lecturer | CHEM | Bioinorganic Chemistry |
| Mrs. Bharti Kungar | Lecturer | CHEM | Inorganic Chemistry |
| Dr M M Krishna Kumar | Lecturer | CHEM | Marine Natural Products |
| Dr. Sandip Banerjee | Asst. Prof. | MATH | Mathematical Biology |
| Dr. Biswanath Layek | Lecturer | PHY | Theoretical Particle Physics and Cosmology |



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We wish to thank the faculty and students who have helped us in procuring data and photographs.

Please send your comments/suggestions/feedback to : <mraman@bits-pilani.ac.in>

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HT RAJASTHAN

Kalam interacts with young minds

KS Tomar
Plan (Rajasthan) April

शुक्रवार • 22 मार्च, 2007
राजस्थान पत्रिका

प्रो.माहेश्वरी का अभिनन्दन किया

पिलानी, 21 जून (निस)। डॉ.ए.ए.ए. कल्याणकर द्वारा आयोजित कार्यक्रम में डॉ. माहेश्वरी के प्रति अभिनन्दन किया गया।



THE HINDU • WEDNESDAY, MAY 16, 2007

Honour for BITS Pilani student

The student has been selected among the world's top ranking students and will receive a prize of Rs 10 lakh.

दैनिक भास्कर
शुक्रवार 13 मार्च, 2007

मैनेजमेंट फेस्टीव इंटरफेस-2007

मोबाइल मेडिक्स पर बनेगी डॉक्यूमेंटरी फिल्म

पिलानी, 13 मार्च (निस)। डॉ. ए.ए.ए. कल्याणकर द्वारा आयोजित 'मैनेजमेंट फेस्टीव इंटरफेस-2007' कार्यक्रम में डॉ. माहेश्वरी का विशेष कार्यक्रम आयोजित किया गया।

भारत का प्रतिनिधित्व करेगी कार्तिका

पिलानी, 13 मार्च (निस)। डॉ. ए.ए.ए. कल्याणकर द्वारा आयोजित कार्यक्रम में डॉ. माहेश्वरी का विशेष कार्यक्रम आयोजित किया गया।



राष्ट्रीय सम्मेलन शुरू

पिलानी, 13 मार्च (निस)। डॉ. ए.ए.ए. कल्याणकर द्वारा आयोजित कार्यक्रम में डॉ. माहेश्वरी का विशेष कार्यक्रम आयोजित किया गया।

पिलानी बिटसेट में 85 हजार से अधिक का रजिस्ट्रेशन

पिलानी, 13 मार्च (निस)। डॉ. ए.ए.ए. कल्याणकर द्वारा आयोजित कार्यक्रम में डॉ. माहेश्वरी का विशेष कार्यक्रम आयोजित किया गया।

'अपोजी' में हुई प्रतियोगिता

पिलानी, 13 मार्च (निस)। डॉ. ए.ए.ए. कल्याणकर द्वारा आयोजित कार्यक्रम में डॉ. माहेश्वरी का विशेष कार्यक्रम आयोजित किया गया।

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Hindustan Times, New Delhi
WEDNESDAY, JUNE 13, 2007

NEWS BUZZ

BITS-Pilani opts out of India Today survey

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Now, BITS plans for best B-school

The Birla Institute of Technology and Sciences, Pilani, is planning to launch a new business school to cater to the needs of the country's growing economy.

Country's toppers flock to Pilani

In a remarkable departure from the normal run of "quotas" everywhere, BITS Pilani has its quota of toppers.



A NEW RECORD: From an average of 52 toppers in...

Among the top institutes, asserts BITS

The Birla Institute of Technology and Sciences, Pilani, asserts that it is among the top institutes in the country.



रोबो-सोकर में मिडे रोबोट्स

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