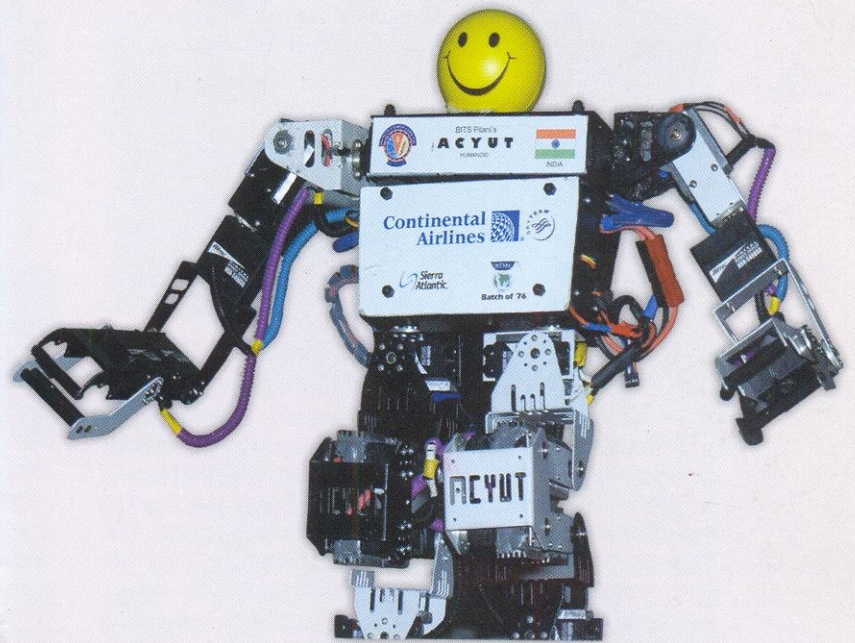


BITScan

Semester Notes

Issue 12



Semester II

2007 - 2008

INSIDE

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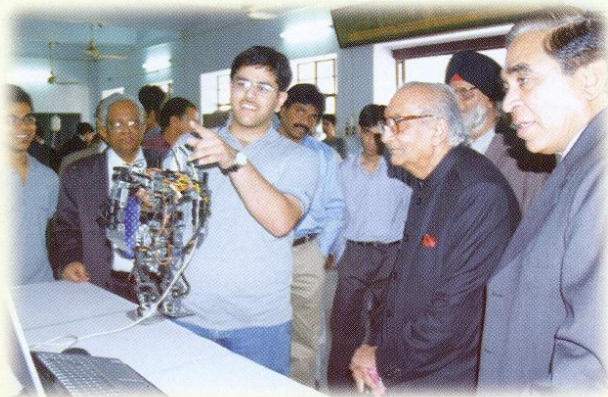


**BIRLA INSTITUTE OF TECHNOLOGY
AND SCIENCE**

Pilani - 333031
Rajasthan

GROWING SPIRIT OF INNOVATION

II Semester 2007-2008 was replete with several innovative projects carried out by the students and faculty members of BITS, Pilani. The campus was honoured by the visit of Dr. K.K. Birla, Chancellor, on 14 March. He evinced keen interest in the projects displayed by the students during Apogee and his words of appreciation acted as a source of inspiration for them. Many distinguished



academicians and industrialists visited the Institute and shared their expertise with the BITS community. A number of MoUs were signed with foreign universities and industries for the mutual benefit of academic and research interactions. The Institute's fourth campus at Hyderabad was geared up to receive its first batch of students in August 2008. BITSAT, the online admission test of BITS, Pilani entered its 4th year in May 2008. It has been witnessing a marked increase in the number of applications. BITSAT 2008 received 1,16,980 applications for 2000 seats (800 in Pilani and 600 each in Goa and Hyderabad Campus). As compared to last year, the number of girl-applicants has increased by 4% and this year it was 32%. BITS students once again showcased their scholastic excellence through a number of innovative projects and exhibitions in APOGEE 2008. The Institute also witnessed an increasing



participation of students in several competitions and conferences held in institutions of repute in India and abroad. With 600 participants including many eminent scientists from India and foreign countries, the three day International Conference on "The Interface of Chemistry-Biology in Biomedical Research" organized by the Chemistry Group stood as a milestone achievement in the history of BITS, Pilani. Faculty members from various disciplines were awarded grants by several agencies to carry out research projects in their respective areas. The

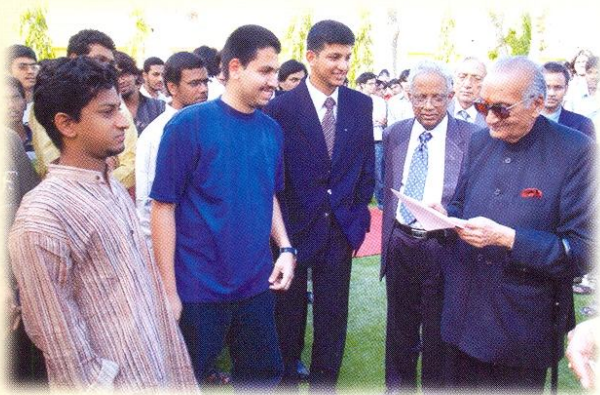


institute also added one more feather to its cap by accomplishing two HRD programmes for academic institutions. Several faculty members visited countries abroad to present their research papers at the international conferences and to participate in teaching and discussions as well. Faculty members also delivered invited talks and conducted workshops in institutions across the nation. In all, the semester continued to march ahead towards excellence in innovation and creativity.

Chancellor's Visit

14 March 2008, the fourth day of APOGEE 2K8 turned out to be a memorable day for the organizers as well as the participants because the Chancellor, Dr. K.K. Birla visited their project exhibitions and spent his valuable time with them. His keen interest in knowing the details of the projects encouraged them. Dr. K.K. Birla who came to Pilani by a chartered plane, was received at the gliding club





by Prof. L.K. Maheshwari, Vice-chancellor; Prof. S. Venkateswaran, former Vice-chancellor and Professor Emeritus-cum-Advisor; Deputy Directors and other officials of BITS, Pilani. In his hectic day-long schedule at the Institute, Dr. Birla made it a point to spend some time with the budding engineers and scientists who had exhibited their month-long effort through their innovative projects. He also met the faculty members and students at a get together organized in VFAST lawns.

ACADEMIA

A Confluence of Ideas

Seminars/ Conferences/ Workshops/ Training programs

Three-day International Conference on the Interface of Chemistry and Biology in Biomedical Research (22-24 Feb 2008)

The three day International Conference of ISCB (Indian Society of Chemists and Biologists) on "The Interface of Chemistry-Biology in Biomedical Research" was attended by 600 participants that included a galaxy of scientists from India, France, USA, UK, Chile, Spain, Korea, Germany, Japan;



representatives from research industries such as Ranbaxy, Nicholas Piramal, Lupin, Dr. Reddy's Lab; research scholars and the students and faculty members of BITS, Pilani. The conference aimed at understanding the need of Chemistry-Biology

interface and its potential for the innumerable possible applications in the fields of biomedicine, healthcare, drug development, marine sciences, etc. Inaugurated by the eminent scientist and distinguished alumnus of BITS, Pilani Prof. Goverdhan Mehta of IISc, Bangalore, the conference was convened by Dr. Dalip Kumar, Group Leader, Chemistry Group and Dr. Anil Kumar, faculty at the Chemistry Group. Prof. Mehta delivered the Key note address on "Synergy between Natural Products and Total Synthesis for Drug Discovery". Prof. L.K. Maheshwari, Vice-Chancellor in his address focused on the theme "United we grow" laying emphasis on the importance of interdisciplinary research and how BITS, Pilani had been adopting this through its novel concept of dual degrees. Dr. P.M.S. Chauhan, General Secretary, Indian Society of Chemists and Biologists (ISCB) emphasized on how for the past three decades, continuous research was being put in on bringing interface between Science and Technology. In his address, Prof. V.S. Rao, Director, BITS-Pilani, Hyderabad Campus and Chairman of the Conference, stated that the aim of this Conference was to serve as a platform for fruitful discussions, interactions and deliberations on the diverse aspects of the interface of Chemistry and Biology.

Two-Day National Seminar on Photonic Polymers: Materials, Devices and Applications (3-4 April 2008)

The Electrical and Electronics Engineering (EEE) Group of Birla Institute of Technology & Science Pilani conducted a two day national seminar on "Photonic Polymers: Materials, Devices and Applications" with the aim of bringing together researchers from various national laboratories, institutes, universities and colleges working in the area of polymer chemistry, organic chemistry and photonics; and to discuss the research and development on the special class of polymers, called photonic polymers from a national perspective. The seminar was inaugurated by the Vice Chancellor, Professor L.K. Maheshwari and convened by Dr. M.N. Satyanarayan.

Distinguished scientists and academicians from reputed national institutes, universities and national laboratories delivered lectures during the seminar.



Prof. G. Raghurama, Deputy Director (Academic) distributed certificates to all the participants and Dr. Sharaf gave away the coveted prizes to the winners: Mr. P. Purnes and K.B. Manjunath in the Valedictory Function organized on April 4, 2008.

International Seminar on Network Concrete at Hotel Metropolitan, New Delhi (27 Feb. 2008)

Birla Institute of Technology and Science (BITS), Pilani (India) and University of Dundee (UK) in association with leading technical education institutions in India hosted an international seminar on Network Concrete at Hotel Metropolitan, New Delhi. Organized by Dr. Shamsheer Bahadur Singh, the seminar was inaugurated by Sir Alan Langlands, Vice-Chancellor, University of Dundee and attracted more than 40 participants from India and UK. This was the first meeting of this kind and would be held every successive year by one of the member institutions in India.

Orientation Workshop on Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) for university and college teachers (12-13 January 2008)

The UGC Center for Women Studies organized a two-day orientation workshop on "Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)" for university and college teachers at BITS, Pilani.

Inaugurated by Prof. L.K. Maheshwari, Vice Chancellor and concluded by Prof. K.E. Raman, Deputy Director (Admn.), the Convention assumed an important role in bringing the female into the focus of human rights concerns. It believed that women can enjoy the rights only if they are aware and have knowledge of their rights under National and International Conventions. Prof. Pam Rajput, Executive Director, Women Resource and Advocacy Center, Chandigarh and Member, UGC Expert Committee on Gender and Ms. Kamal Singh, Gender Expert and Former Head, Governance and Social Justice, British Council, New Delhi acted as resource persons for the workshop and benefited 47 delegates from nearby academic institutions and



BITS, Pilani. The workshop was convened by Dr. Nirupama Prakash.

Workshop on Promotion of Entrepreneurship through Incubation among Students (30 March 2008)

A workshop on "*Promotion of Entrepreneurship through Incubation among Students*" was conducted by the EDIPR Unit of the Institute. It was supported by Technology Business Incubation, BITS-Pilani, Department of Science & Technology and the GOI. The one day workshop comprising of five sessions was inaugurated by Prof. A.K. Sarkar, Dean, Faculty Division – I & Instruction Division,



BITS-Pilani and saw an active participation from 41 students from diverse academic backgrounds. There were sessions like Ice-breakers – A team activity, Creativity & Entrepreneurship, Technology driven Entrepreneurship and Financing the Venture. The interactive one day event concluded with certificate distribution to all the participants by Prof. Gurunarayanan, Dean, FD III and Admission.

Workshop on Right to Information Act by NSS at BITS, Pilani (13 April 2008)

To create awareness about the RTI Act, the NSS BITS, Pilani chapter conducted a workshop. The workshop was inaugurated by Prof. K.E. Raman, Deputy Director, BITS, Pilani. The resource persons Mr. Santosh Jha and Mr. Shushil Kaushik from Parivartana, a Delhi based NGO apprised the audience about the nuances of the Act. Mr. Shushil Kaushik, with his 19 years service as a police inspector in UP shared his experiences and also informed the students of BITS about the power of RTI Act in getting information regarding their pending passport and other applications. He explained to them how an RTI Act application swiftly acts within 30 days in getting any desired information.

Workshop on Leadership (24 March 2008)

Economics and Finance Association organized a workshop on "Creating Future: Be a Leader in an Era of Innovation", conducted by Deloitte for the

benefit of students. Mr. Sundar Shekhar, Principal, Deloitte and Mr Jayendra Shankar, Executive Manager, Deloitte Consulting Off-shore Technology Group were the resource persons. Over 100 students across various disciplines participated in the workshop. The main purpose of this workshop was to create awareness among students about the organizational challenges for future leaders. Lectures and activities were carried out during the day long workshop.

Science, Imagination and Discovery: Workshop for School Children (12-20 May 2008)

Jointly organized by BITS, Pilani and CEERI, Pilani the summer science workshop on the theme 'Science, Imagination and Discovery' for school children entered its second year. The workshop was inaugurated by Prof. L.K. Maheshwari and was attended by 60 students from class VII to XII. As highlighted by Dr. Suman Kapur, convenor, the main aim of this workshop was to pique the imagination of the young minds and develop a keen sensory perception and observation which may lead to future innovations and discoveries. Prof. L.K. Maheshwari, Vice Chancellor, BITS, Pilani, Dr. N. Sarangi, Director, Central Institute of Fresh Water Acquaculture and Dr. Chandrashekhar, Director,



CEERI addressed the enthusiastic school children on this occasion. Dr. V.K. Dube, the Co-Convenor of the workshop delivered the formal vote of thanks. During this workshop participants got an opportunity to visit the various labs in BITS and CEERI, attend lectures by eminent scholars and watch the film shows on science, environment and discoveries. This nine day workshop ended with the distribution of certificates and mementoes by Mrs. Gayatri Maheshwari and Mrs. Chandrashekhar.

Human Resource Development Programs for School Teachers and Administrators (10-13 January 2008)

The third and last Human Resource Development Programme in the series was organized at the institute for the teachers and administrators of various schools managed by Ms. Manjushree Khaitan. Prof. L.K. Maheshwari, Vice Chancellor, BITS, Pilani inaugurated the three day programme



and Prof. Surekha Bhanot, coordinator, welcomed the participants and introduced the theme of the workshop. The focus was on motivating students, making classroom learning interesting and enjoyable, English language teaching methodologies, and holistic development of students.

The 22 participants of the programme were benefited by the invited talks - one by Prof. L.N. Mittal on "Matrix of Teaching-Learning Process" and the other by Mr. Prashant Khanna on "Integral Education." Model lectures were delivered by BITS faculty in various subjects and practical sessions on web page development, use of library, language lab were conducted. All the participants were awarded certificates by the Vice Chancellor at the end of the programme.

Intensive Teaching Workshop for the faculty of the BSA College of Engineering and Technology, Mathura (17-22 July 2008)

An Intensive Teaching Workshop was conducted for nine faculty members representing assorted disciplines of the BSA College of Engineering and Technology, Mathura. The workshop was inaugurated by Prof. L.K. Maheshwari, Vice Chancellor. Coordinated by Dr. Subhash Karbelkar,



the workshop aimed towards enhancing the effectiveness of classroom teaching. The model lectures were delivered by senior professors of the institute in various areas. Each participant delivered two lectures which were peer-reviewed by a group

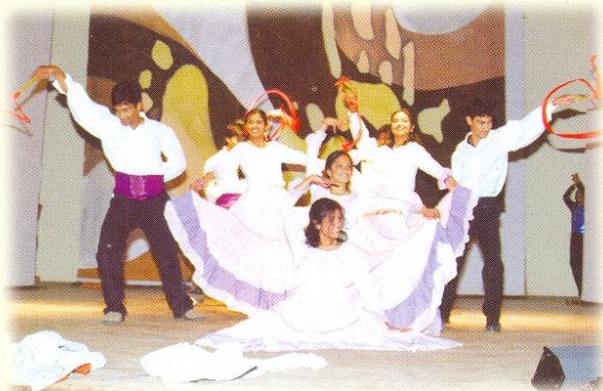
of BITS faculty members. They gave useful suggestions to the participants to improve their teaching skills. The participants were also given opportunity for self assessment by viewing their recorded performance. Two special Group Discussion sessions were also conducted during the workshop. The participants visited EEE, Mechanical and Computer Science laboratories. The workshop concluded with the valedictory function presided over by Prof G Raghurama.

National Science Day

The National Science Day was celebrated on 28 February with this year's theme *Understanding Planet Earth* as suggested by the Ministry of Science and Education. The events of the Science Day celebrations included quiz for the local school children, lectures on topics of popular science by BITS faculty, and two events, namely, science in a minute and science quiz for the students of BITS. The valedictory function was held after the closing of the lectures and prizes for various competitions were distributed. Prof. L.K. Maheshwari, Vice Chancellor, Prof. T.C. Goyal, Director, BITS, Pilani-Goa, Deputy Directors, Prof. K.E. Raman and Prof. G. Raghurama, addressed the gathering and encouraged the participants. Dr. Srijatha Dey and Dr. Champak B. Das of Physics group coordinated the activities of science day celebrations.

Founder's Day

The Institute celebrated the 44th Founder's Day on 11 February 2008 by organizing various activities. The programme started with a floral tribute to the founder chairman The Late Shri G.D. Birla. Students and the staff gathered near Shri G.D. Birla's statue to pay their tributes 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 evening. During the cultural programme, Prof. L.K. Maheshwari felicitated six



supporting staff members of the institute upon the Best Performance Awards of the year 2006-07. The awardees were Shri Ram Kumar, Shri V.N. Jangir,



Shri Nathu Ram, Shri Madan Lal, Shri Mahavir Prasad and Shri Narayan.

World Health Day

Community Welfare and International Relations unit (CWIRU) arranged a 'Walk for Health' in the morning on 7 April 2008 on the occasion of 'World Health day'. This witnessed the participation of BITS students, faculty members and their families. Prof. L.K. Maheshwari inspired over 50 participants by



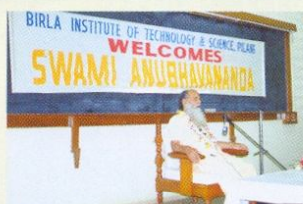
leading the walk himself. Participants covered a distance of about 5 km in Vidya Vihar Campus.

Basant Book Festival (23 February - 5 March 2008)

The 11-day long Basant Book Festival was held at Akshay Supermarket during 23 February - 5 March 2008. Over 3000 books on various subjects including Academic Books, Fiction, Biography, History, Social Sciences, Science and Technology, Children's Books and General Reference were available for display and sale. Prof. K.E. Raman, Deputy Director, inaugurated the Book Festival on 23rd February in the presence of faculty members, students, book lovers and local press.



DISTINGUISHED LECTURES AT BITS PILANI



SPEAKER	DESIGNATION	TOPIC	DATE
Mr. Anil Nakhasi	Senior Broadcasting Executive and Creative Consultant, Doordarshan, New Delhi	(i) Creativity and Media	08 January 2008
		(ii) News and Current Affairs	09 January 2008
Dr. Rajender S. Varma	Environment Protection Agency, Ohio, USA	Green synthetic alternatives to organic compounds and nanomaterials	15 January 2008
Mr. Yatin Trivedi	Director, Industry Partnership, Magma Design Automation	Design for Testing, Testability and Design for Manufacturing	24 January 2008
Prof. Rajendra K. Bordia	Dept. of Materials Science and Engineering, Univ. of Washington, Seattle, USA	Polymer Derived Nanostructured Composite Ceramics	01 February 2008
Mr. Ashwani	Vedic Scholar, Art of Living Foundation	Applications of Vedic Sciences in Everyday Life	16 February 2008
Prof. H. N. Madhavan	Director of Research & Prof. of Microbiology, Shankar Netralaya, Chennai	In vitro cultivation of corneal-limbal stem cells in a thermo-reversible polymer and its transplantation in a rabbit model	18 February 2008
Dr. Rajesh Ghosh	Executive Director & Global Head, IMS Process & Technological Innovation, Novartis, USA	Changing Landscape in Pharmaceuticals Globally	20 February 2008
Mr. Sundhar Sekhar	Principal, Deloitte Consulting LLP, Harrisburg, Pennsylvania, USA	Scope of Consultancy and the Career Opportunities at Deloitte	23 March 2008
Dr. Shrikant Joshi	Associate Director, ARCI, Hyderabad	Surface Engineering for Enhanced Durability and Performance of Components	24 March 2008
Swami Anubhavananda	Founder, Satbhawana Trust & Visiting Faculty, BITS, Pilani	(i) Play your role effectively for overall success (ii) Managerial Excellence Through Humane Approach	27, 29 & 30 March 2008 31 March & 01 April 2008
Gen. J. R. Bhardwaj	National Disaster Management Authority, Govt. of India, New Delhi	(i) Community Health Education in India	03 April 2008
		(ii) Paradigm Shift on Disaster Management	04 April 2008
Dr. Raman Chawla	JRO, National Disaster Management Authority, Govt. of India, New Delhi	Mock Exercise: Changing Concepts & Case Study Karnataka Chemicals	04 April 2008
Dr. Pushpa Attal	ELT Consultant, Houston, Texas, USA	(i) Using right words and phrases in the right cultural context with special focus on USA and India (ii) Overcoming Intercultural barriers during university life in USA	08 April 2008
Prof. Prafulla Padhi	Founder, Global Governance LLC	(i) Marketing Profession in Emerging Areas of Bio Nano (ii) Growth and Exit Strategies Technology Star ups	23 April 2008
Prof. B. Viswanathan	Vice Chancellor, SCSVMV University, Kanchipuram	Nanoscience and Technology – A Journey into the Big World of Small Things	April 24, 2008

VISITS BY FACULTY: ENRICHING THE LEARNING EXPERIENCE

International Visits

Prof. Ravi Prakash visited University of Buffalo, State University of New York (SUNY) for academic pursuits. He also visited Vellanova University, PA, USA on 6 June 2008 and delivered an invited talk on "Materials Selection in Biomedical Engineering".

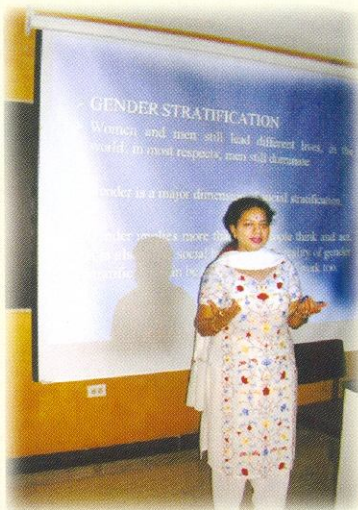
Dr. Suman Kapur visited Saudi Arabia from 13 to 22 January 2008 to serve as a jury for the King Faisal International Prize for science.



Dr. C. Hota visited University of Technology, Helsinki, Finland, from 11 May to 15 June 2008 as Erasmus Mundus Scholar.

Dr. Champak Baran Das visited McGill University, Montreal, Canada during 18 May - 15 July 2008 for a research collaboration with Prof. Subal Dasgupta of Physics Department there. The collaboration resulted in a paper communicated to the international journal, Nuclear Physics A.

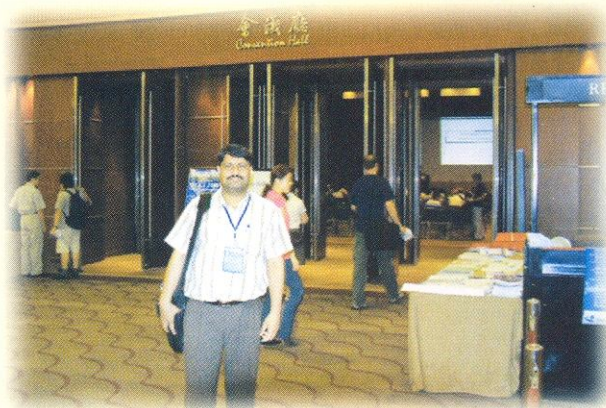
Prof. Nirupama Prakash was invited as Visiting Scholar at Department of Global Gender Studies, University at Buffalo, State University of New York, U.S.A to teach a six-week summer course on "Introduction to Gender & Women Studies-Focus on Women in Contemporary Asia" during 19 May- 27 June, 2008.



Dr. Ram Kinker Roy visited University of Tokyo during 26 May - 25 June 2008 as a part of his ongoing research collaboration with Prof. Kimihiko Hirao of the Department of Applied Chemistry, School of Engineering, University of Tokyo. He delivered a talk on 'N-dependence Problem of Local Hardness Descriptor'.

Dr. Rajesh Mehrotra visited Kyoto University as a foreign visiting scientist to study the chromosome segregation by wet lab approach using time lapse microscopy of the live fission yeast cell during 30 May-26 July 2008. His visit was sponsored by a project from the Ministry of Science and Technology, Japan.

Dr. Rakesh Angira attended the 2008 IEEE World Conference on Computational Intelligence held



during 1-6 June 2008 at Hong Kong and presented a paper on "The Modified Trigonometric Differential Evolution Algorithm for Optimization of Dynamic Systems".

Mr. Amit Kumar Singh presented a paper entitled "Using DOE to Optimize the Process Parameters for Rapid Prototyping Process" at the 32nd Japan Rapid Prototyping Symposium organized by the society of Rapid Prototyping (RP) Japan in collaboration with Japanese Society of Die and Mold Making during June 23-24, 2008 at the Ota City Industrial Plaza in Pio, Tokyo, Japan. This paper has been co-authored by Prof. S.P. Regalla.

Dr. Shamsheer Bahadur Singh visited UK for series of UKIERI (UK-India Educationa Research Initiatives) meetings at University of Dundee, Scotland, UK during 6-16 July 2008. He presented a technical paper entitled " Design Aspects of FRP Reinforced Strain Hardening Cementitious Composite Beam" in the Concrete Technology Laboratory, University of Dundee, UK on 11 July 2008 and attended the Seventh International Congress on Sustainable Concrete Construction held at the university during 8-10 July 2008.

Dr. Singh made industrial visits at Nottingham, Birmingham, UK during 14-15 July 2008.

Prof. Meenakshi Raman presented a paper on "Establishing relationship with wider society: role of media relations unit" at the 2nd International



conference of the Association of Commonwealth Universities (ACU) held in Durban, South Africa during 14-16 July 2008.

Invited Lectures by Faculty

Prof. Suman Kapur delivered an invited talk on Role of Technology in Crime Detection at the XXXVIII All India Police Science Congress held during 29-31 January 2008 and Chaired a session in Mid term conference of tropical neurology held in Bikaner during 16-18 March 2008.

Dr. Ajit Pratap Singh, at the invitation of the Indo French Centre for the Promotion of Advanced Research (IFCPAR), attended three-day Indo-French Seminar on Water conducted at Ahmedabad during January 29-31, 2008 and delivered an invited talk on "An Integrated fuzzy approach for Regional Assessment of Water Resources Potential in a River Basin". He was also invited by the Irrigation Management Training Institute (IMTI), Kota as a resource faculty to deliver a series of lectures on "Water conservation: Agricultural, Industrial and domestic" in the training programme on "Integrated Water Resources Management" conducted for AEs/EEs of different departments of Government of Rajasthan during 21-23 May, 2008 and 19-21 June 2008.

Prof. C.B. Gupta delivered an invited talk on Applications of Simulation Techniques during 18- 19 January 2008 and chaired a technical session at the Jaipur Engg. College Kukas, Jaipur on the occasion of annual conference of Rajasthan Ganita Parishad and Symposium on Numerical Techniques and their Applications in Mathematics. Dr Gupta delivered two more invited talks Applications of Operations Research at Singhania University, Pacheri Bari on

27 January 2008 and on CPM/ PERT at KAIM Charkhi Dadri on 23 April 2008.

Prof. Navneet Goel delivered an invited talk on "Role of Data Warehousing & Data Mining in Higher Education" at the conference on Applications and trends in Data Warehousing, Data Mining, and Data Modeling, organized by Forest Research Institute University, Dehradun and Dehradun Chapter of Computer Society of India during 9-10 February 2008. He also delivered an invited talk on "Online Algorithms & Applications" in a training program at Thapar University on 12 June 2008.

Dr. A.K. Digalwar delivered an Invited Talk on *Emerging Trends in Manufacturing Management* at Jawaharlal Darda Institute of Engineering and Technology (JDIET) Yavatmal, Maharashtra 20 Feb. 2008.

Prof. Nirupama Prakash, on invitation, delivered a lecture on Conflict Management: Assessment & Strategies" at the Institute of Business Studies & Research (IBSAR), Mumbai on 7 March, 2008. She delivered a talk on "Impact of ICT on Gender Issues in a Rural Setting" and chaired a session during the National Seminar on Gender and Information Technology: Challenges and Opportunities organized by the Centre for Women Studies, Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth, New Delhi during 24-25 March, 2008. Dr. Prakash was invited to participate in a discussion meeting on 29 April 2008 organized by Rajasthan State Commission for Women (RSWC) on synergy between utilization of field data from Rajasthan State Commission for Women and academic projects/analysis undertaken by UGC Center for Women Studies based in academic Institutions.

Prof. Meenakshi Raman and **Mr. V.S. Nirban** conducted a 3- Day workshop on Interviews, Group



Discussion and Professional Presentations at Bikaner Engineering College, Bikaner during 8-10 March 2008.

Dr. Sangeeta Sharma conducted a four-day workshop on Effective Communication and Presentation Strategies at NADP, Nagpur during 14-17 April 2008. She acted as a resource person for the workshop on Interpersonal Communication at Bikaner Engineering College, Bikaner on 27 April 2008. Dr. Sharma delivered special lectures on Effective Communication, Effective Presentations and Research Reports at the "Staff Development Program" sponsored by AICTE during 5-6 May 2008 at CIPS, Jaipur.

Prof. Arya Kumar chaired a session on "Growth and Inequalities" in the National Seminar on Globalization and Inclusive Growth organized by

Birla Institute of Management Technology in association with National University of Educational Planning and Administration during 2-4 May 2008 in Delhi and presented an invited paper "Indian Banking in Globalized Era: Issues, Challenges and Emerging Scenario".

Dr. Rakesh Angira delivered an invited talk on "Environmental Considerations in the Simulation and Design of Chemical Processes" in the National Conference on *Clean Technology & Cleaner Production* at Deenbandhu Chotu Ram University of Science & Technology (DCRUST), Murthal (Sonapat), Haryana on 8 May 2008.

SIGNIFICANT PROJECTS

Principal Coordinator	Name of the Group	Title of Project	Funding Agency & Amount
Dr. Suman Kapur	Biological Sciences	(i) Identification of genetic loci associated with risk for Type 2 Diabetes Mellitus in Indians from Rajasthan (ii) Identification of genetic marker for susceptibility for addiction to opiates (iii) Clinical assessment of laudhatri for treating anemia	Indian Council of Medical Research, New Delhi, India 2008 to 2011; Rs 32 lacs Indian Council of Medical Research, New Delhi, India; 2008 to 2011; Rs 8.0 lacs Aayush, Ministry of Family Health and Welfare, New Delhi, India; 2008 to 2009; Rs 4.65 lacs
Dr. Jitendra Panwar	Biological Sciences	Nano technology for enhanced utilization of native-phosphorous by plants and higher moisture retention in arid soils	ICAR, 28.225 lacs
Dr. Subit Kumar Saha	Chemistry	(i) Probing twisted intramolecular charge transfer fluorescence to characterise the micelles of some Gemini surfactants. (ii) Twisted intramolecular charge transfer (TICT) fluorescence probing studies of micropolarity and microviscosity of different types of Gemini micelles.	UGC, Rs. 8.44 lacs. CSIR, 12.13 lacs.
Dr. N. Rajesh	Chemistry	Chemically modified adsorbents for the preconcentration and separation of heavy metal ions from industrial wastes and environmental samples	DST, Rs. 22.5 lacs
Dr. P.K. Thiruvikraman	Physics	Development of Interactive Computer programs for teaching Physics	UGC, Rs.95,000
Dr. Rakesh Choubisa	Physics	Study of spin polarization of electrons in the (e, 3e) process on atoms	DST, Rs. 13 lacs.
Dr. Nirupama Prakash	Humanistic Studies	Safe Motherhood and Access to Resources Among Nomadic Populations in Desert Regions in Rajasthan, India and the Negev, Israel A Comparative Perspective	ICSSR, Rs. 1.62 lacs.

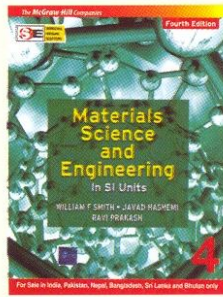
Faculty members from various disciplines have been appointed as members of national and international advisory committees/ acted as reviewers for books/Papers published in Journals of national and international repute.

S.No.	NAME	GROUP	JOURNAL / MEMBER DETAILS
1.	Prof. B V Babu	Chemical	<p>Reviewed 17 articles published in 14 International Journals such as IEEE Transactions on Systems Man and Cybernetics-A (IEEE), IEEE Transactions on Mechatronics (IEEE-ASME), Chemical Engineering Science (Elsevier), Chemical Engineering Journal (Elsevier), Journal of Analytical and Applied Pyrolysis (Elsevier), European Journal of Operational Research (Elsevier), International Journal of Chemical Reactor Engineering (Berkeley Electronic Press), Chemical Product and Process Modeling (Berkeley Electronic Press), Materials and Manufacturing Processes (Taylor and Francis), ASME Journal of Electronic Packaging (ASME), Industrial and Engineering Chemistry Research (ACS), Journal of Future Engineering and Technology (i-Manager), Environmental Engineering Science (Mary Ann Liebert Inc.), and Waste Management (Elsevier).</p> <p>Nominated member of the editorial committee of International Journal of Applied Evolutionary Computation.</p> <p>Nominated International Program Committee Member in 7 International Conferences</p> <p>Expert Member for the curriculum development for B.Tech & M.Tech in Chemical Engineering at Malaviya National Institute of Technology (MNIT), Jaipur.</p>
2.	Mr. Ashish M Gujarathi	Chemical Engineering	Reviewed two articles of Chemical Engineering Journal (Elsevier)
3.	Dr. Ajit Patap Singh	Civil Engineering	Reviewed two research papers for the International Journal of WSEAS Transactions on Environment and Development and two papers for ICFAI Journal of Computational Mathematics
4.	Dr. B.S. Nagendra Parashar	Mechanical Engineering	Editor-in-Chief, CURIE, BITS, Pilani
5.	Dr. Hitesh Datt Mathur	Electrical and Electronics Engineering	Reviewed research articles of following Journals: IET Renewable Power Generation, IEEE Transactions on Energy Conversion, International Journal on Global Energy Issues. Editorial Assistant for International Journal of Renewable Energy Technology.
6.	Prof. Rahul Banerjee	Computer Science and Information Systems	Member of Editorial Committee, CURIE, BITS, Pilani
7.	Dr. Sajeew Chandran	Pharmacy	<p>Expert reviewer for Biomacromolecules, AAPS PharmSciTech, Journal of Pharmaceutical Sciences, International Journal of Pharmaceutics and reviewed several papers:</p> <p>Member of Editorial Committee, CURIE, BITS, Pilani</p>

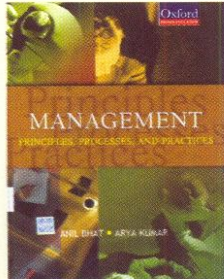
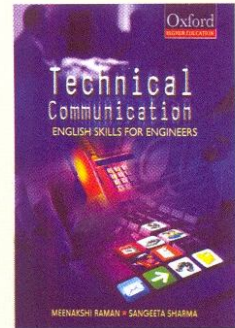
S.No.	NAME	GROUP	JOURNAL / MEMBER DETAILS
8.	Prof. Anil Bhat	Management	Reviewed 5 papers for Academy of Management, New York Reviewed a book on Organizational Behavior by Pearson Publishers
9.	Prof. Suman Kapur	Biological Sciences	Reviewer for journal "EYE" (published by Nature Group) and ICMR projects Member for selection of commonwealth scholarship awardees for the year 2008 Jury for the Ranbaxy Science Foundation scholars award in January 2008
10.	Dr. N. Rajesh	Chemistry	Reviewed three articles for the journal entitled "International journal for Environmental Analytical Chemistry, published by Taylor and Francis
11.	Prof. Arya Kumar	Economics	Reviewed a comprehensive book on "Financial Management for Oxford University Press. Reviewed more than 6 research papers for Business Perspective - Journal brought out by Birla Institute of Management Technology, Greater Noida during the semester. Reviewed the book titled "Fundamentals of Financial Management" by Prasana Chandra brought out by Tata McGraw Hill. Academic Advisory Board member of the 4th International conference - 2008 on "Entrepreneurship in New Economy "organized between 14-16th Feb., 2008 by Rajiv Academy for Technology Management, Mathura.
12.	Prof. C B Gupta	Mathematics	Reviewed a book entitled Basic Linear algebra published by Pearson Education, New Delhi.
13.	Ms. Padma Murali	Mathematics	Reviewed a book on Engineering Mathematics published by Pearson Education.
14.	Dr. Souri Banerjee	Physics	Reviewed the full-length manuscript for Journal of Applied Physics, AIP publication. Member of Selection Committee for Junior Scientists in DRDO, New Delhi.
15.	Prof. Meenakshi Raman	Languages	Associate Editor, CURIE, BITS, Pilani
16.	Dr. Sangeeta Sharma	Language	Edited AIMS International Journal of Management Volume 2 Number 1, January 2008
17.	Dr. Pushp Lata	Languages	Member of Editorial Committee, CURIE, BITS, Pilani
18.	Dr. S.K. Choudhary	Languages	Member of Editorial Committee CURIE, BITS, Pilani

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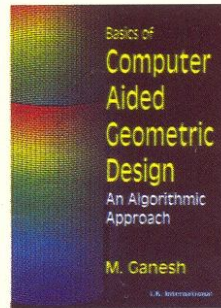
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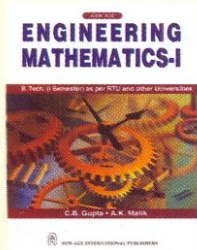
Technical Communication: English Skills for Engineers, Oxford University Press, 2008, New Delhi, M. Raman and S. Sharma



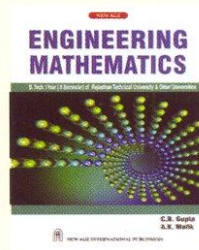
Management: Principles, Processes and Practices, Oxford University Press, March 2008, Anil Bhat and Arya Kumar.



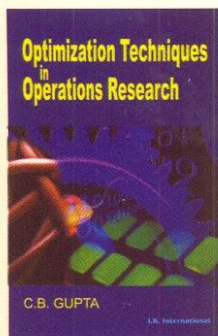
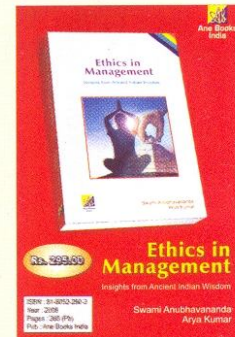
Basics of Computer Aided Geometric Design, I. K. International Publishing House Pvt. Ltd. New Delhi, 2008, M. Ganesh.



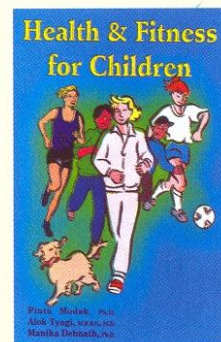
Engineering Mathematics, New Age International Publishers, New Delhi, 2008, C.B. Gupta.



Ethics in Management, Ane Books India, 2008, Swami Anubhavananda and Arya Kumar.

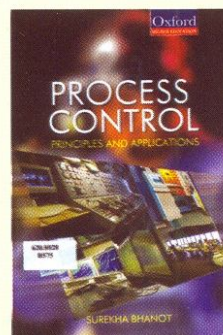


Optimization Techniques in Operations Research, I.K. International Publishing House Pvt. Ltd., New Delhi, 2008, C.B. Gupta.



Health and Fitness for Children, Sports Publication, New Delhi, 2008, P. Modak, Alok Tyagi and M. Debnath

Process Control, Oxford University Press, New Delhi, 2008, Surekha Bhanot



ACHIEVEMENTS

BITS students gave an incredible performance and grabbed five gold (out of 8) and three silver medals in



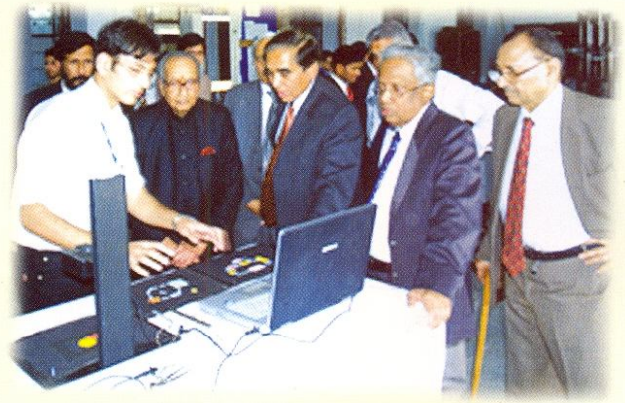
MNIT Sports Meet held at MNIT Jaipur during 22-24 February 2008.

Srikumar (2006A3PS235), Rachit Chandra (2006A7PS012) were 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 during July 2008. In the initial phase of the competition, 150 students pursuing their second year of study from top 90 universities in 19 countries were selected. Out of the 29 selected Indian students, four were from BITS: Srikumar (2006A3PS235) and Rachit Chandra (2006A7PS012), M Harsha Vardhan (2006A7PS156) and Anantha Padmanabhan (2006BIA3338). They were awarded USD3000 each at an award ceremony held in Mumbai.

The team carbon India comprising Tanpreet Singh Sehgal, Gaurav Gupta, Smita Kumar and Abhishek Humbad of BITS, Pilani secured 2nd position in INC, a National Level Business Plan Competition organized by DA-IICT, Gandhinagar on 1 March 2008. The other BITSian team comprising of Reeturaj Mishra, Abhishek Verma, Vaibhav Saxena and Vaibhav Narayan Singh.

Samay Kohli (2005B3A4817), Arpit Mohan (2005A3PS090), Harsh Sinha (2006A3PS142), Prayag Mukherjee (2007A3PS205) and Sushma Vallabhaneni (2007A7PS063) participated in the Robo Games 2008 organized in the USA from during 13 - 15 June 2008. The team showcased the first humanoid, Acyut, at the event.

Abhishek Syal (2006A8PS277) is one among the 30 selected by the Government of India for the 2008 Kishore Vaigyanik Protsahan Yojana for his project on 'A webcam based virtual cursor for exploring tactile diagrams with speech output for visually challenged'. He was selected by IET (Institution of Engineering & Technology) as the only presenter from India at Asia Pacific Young Engineer



Conference 2008 held in Kuala Lumpur during 25-26 July 2008.

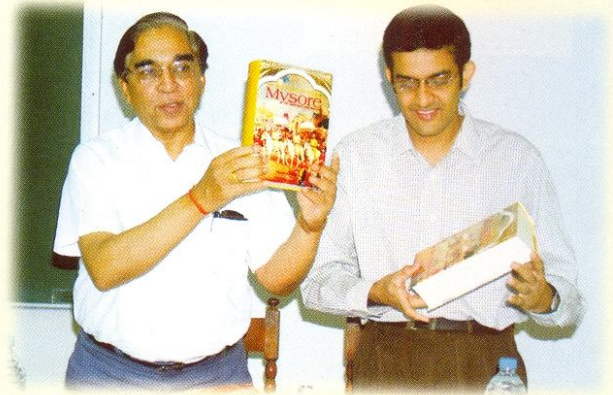
Vaibhav Soni (2005B5A3464) and Manoj Vasudevan represented India and presented a paper titled - "An Empirical Analysis on Sustainable Grass Root Development via Rural Tech Parks" at the International conference on entrepreneurship held in Langkawi, Malaysia during 27-28 May 2008.

Swapna Sundari (2004PHXF420) secured 1st position in the poster competition during the 3-day international conference organized during February 2008 by the Indian Society of Chemists and Biologists at BITS Pilani.

Swapna K (2006A2PS679), Akanksha Dhamija (2005KS49483) and Sankalp Kathuria (2005A4PS359) won 2nd position in the Business Development Category of the Kshitiz-2008 organized at the IITKaragpur.

Amrut B.R. (2004B5PS677) and his team won the First Prize in CONQUEST 2008, the international business plan competition for his project VITA Perata.

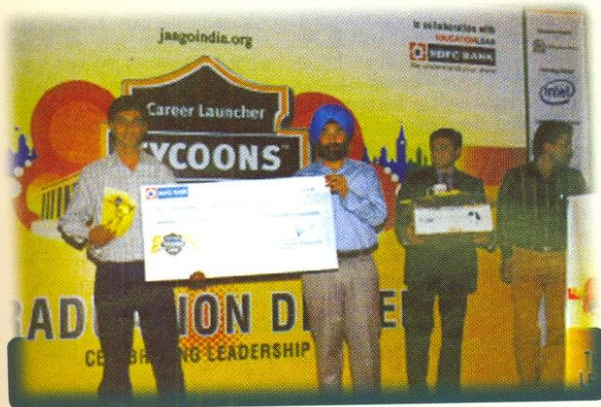
Ankit Mittal (2005A4PS304) and his team won the Second Prize in the CONQUEST 2008, the international business plan competition for their project PHOENIX.



Vikram Sampath, graduate from BITS Pilani, published and launched his first book Splendours of Mysore: The untold Story of the Wodeyars.

Mr. Prakhar Agrawal (2006A4PS300) received the sparkling Karizma bike as the grand prize in the FACT (Fuelling Assertive Campus Talent) competition organized by Wells Fargo India Solutions, the oldest and largest bank in the world, with a primary aim to promoting its brand name amongst the students in India. Students from five selected colleges in India were invited to participate in this contest. The contest included the format of an online quiz followed by an essay round.

Nitish Rastogi of Goa Campus and Abhishek Humbad (2005A3PS088) of Pilani Campus won



First and Second Prize respectively in the Tycoons-08 competition held by Career Launchers in Goa.

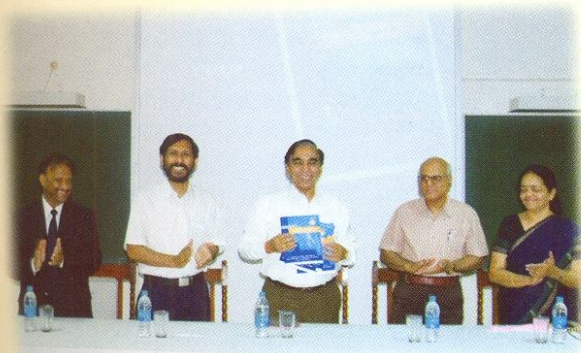
Vipin Jain (2005B5A1435) was selected as one of the international fellows by the prestigious Asia Pacific Next Generation fellowship.

JOINING HANDS

CURIE

Launch of the journal of Cooperation among University, Research and Industrial Enterprises

Sustaining its efforts to promote the linkages with industries and research enterprises, BITS, Pilani



launched **CURIE** – The journal of **Cooperation among University, Research and Industrial Enterprises** on the auspicious day of Ram Navami (13 April 2008) that coincides with the birthday of

The Late Shri G.D. Birla, the founder-chairman of BITS, Pilani. The first issue was released by Prof. L.K. Maheshwari, Vice Chancellor, at a function organized at the institute. The journal publishes articles that are offshoots of collaborative efforts among the universities, research organizations and industrial enterprises. The inaugural issue with its ISSN No. 0974-1305 included ten articles from different disciplines. Prof. K.E. Raman and Prof. G. Raghurama, Deputy Directors of BITS, Pilani extended their best wishes for the journey of CURIE. Prof. Nagendra Parashar, Editor-in-chief presented an overview of the journal while Prof. Meenakshi Raman, Associate Editor, proposed the vote of thanks.

M. S. Educational Systems Management

In collaboration with the Atomic Energy Education Society (AEES), Mumbai, BITS has launched a two year M. S. programme in Educational Systems Management under its work-integrated Distance Learning Programme. The programme aims at equipping school teachers, especially aspiring leaders and managers among them, with the state of the art management techniques. A three-week long contact programme was conducted at BITS Pilani in which instruction in the four first-semester courses was imparted to the AEES teachers registered under the M. S. programme. The contact-programme was inaugurated by Prof. L.K. Maheshwari, Vice Chancellor, BITS, Pilani on 19 May 2008 in the presence of Mr. Madan Rao, Nodal Officer, AEES. The programme was coordinated by Dr Subhash Karbelkar.

MoUs

- With Telecom Bretagne, France on 19 April 2008 to exchange academic resources, promote research and share information in the field of teaching and course design.
- With Yahoo Software Development India Pvt Ltd, on 3 April 2008 to foster collaboration between the two institutions and promote various interactions.



- With Maytas Infra Limited, Hyderabad on 15 February 2008 and run educational programmes to meet the human resources development needs of the company.
- With SAP Labs India Pvt. Limited on 14 February 2008 to promote academic and research interactions.
- With Central Council for Research in Ayurveda and Siddha, New Delhi on 12 February 2008 and run educational programmes so that personnel of CCRAS can obtain their PhD and other degrees from BITS Pilani.
- With TCL Babrala on 2 February 2008 to operate an off campus center at Babrala and run educational programmes to meet the human resources development needs of the company.
- With HP India on 18 December 2007 to operate an off campus center at Bangalore and run educational programmes to meet the human resources development needs of the company.
- With Helsinki University on 17 December 2007 to establish collaborative research, instructional programs, and exchange of scholars and staff.
- With Carnegie Mellon University, Software Engineering Institute, Pittsburg, PA, USA on 17 December 2007 to deliver SEI certificate programs to Indian Industry and develop innovative programs to meet the need of worldwide IT industry.

Center for Entrepreneurial Leadership E-Week '08 at BITS, Pilani (2-9 February 2008)

The Centre for Entrepreneurial Leadership (CEL), BITS PILANI along with National Entrepreneurship Network (NEN) organized the "Entrepreneurship Week India" to celebrate the spirit of entrepreneurship. This programme was inaugurated by Prof. G. Raghurama, Deputy Director (Academic), BITS Pilani. The E-Week witnessed a host of events such as Blogger's Challenge, Nano, BITS Debating Challenge, BITS Big Bout, Quizzing Session and MELS (Meet the Entrepreneur Lecture Series).

The concluding day of the E-Week had a MELS (Meet the Entrepreneur Lecture Series) where Mr. Jayant Ramakutty, a noted entrepreneur delivered a

talk on "Entrepreneurial Opportunities in Mobile Value Added Services".

CONQUEST

Business plan competition to spot prospective entrepreneurs among students (8-9 March 2008)

CONQUEST 2008, the final phase of the international business plan competition, was organized by the Centre for Entrepreneurial Leadership (CEL) at BITS Pilani. It was inaugurated



by Dr. G S K Velu, the Managing Director of India's leading Corporate Diagnostics Chain Metropolis Health Services (I) Ltd. & an alumnus of BITS and Prof. L. K. Maheshwari, the Vice Chancellor. The competition could attract 200 entries of business plans submitted by reputed academic institutions in India and countries abroad. Mentored by 35 industrialists and corporate personnel, 30 plans were short listed in the first phase, 9 in the second phase and 6 in the final phase. The 6 finalist teams IIT Kharagpur, ISB Hyderabad, NIT Rourkela and 3 from BITS, Pilani presented their innovative business plans at the CONQUEST 2008. During the two days of the finals of Conquest 2008, these teams battled it out to take home the prestigious trophy and the prize money of the challenge. Much to the excitement of the BITSian crowd, both the trophies went to teams from BITS, Pilani. The prize winner of the day was the project VITA Perata led by Amrut B.R. with its vision to provide web-based solutions for recruitment and employee management by creating and storing neurobehavioral profiles of people. The runner up's trophy went to the project PHOENIX led by Ankit Mittal. PHOENIX's vision is to revolutionize the face of Iron and Steel Industries by regenerating the spent acid used for pickling in these industries. This plan is to provide services to steel rolling mills. The other finalists were DIAMAS COATS from IIT, Kharagpur, NIRVANA CARE from ISB, Hyderabad, OORZAA from NIT Rourkela and YUVAMRIT from BITS-Pilani. The event was judged by some of the

top-notch corporate personnel like Mr. Prajakt Raut, Co-Founder Medinet Ventures and Director, TiE Asia, Mr. Anurag Jain, Perot Systems, Mr. Girish Gupte, CEO, Rajasthan Venture Capital Fund, Mr. Vivek Kalyan, Managing Director & Co-Founder, Foundercontact India and Dr. Sudhir Thakur, Professor, BITS-Pilani.

INTERFACE 2008

'Anuddishya- Aim High, Act Fast' was the theme of Interface, the three-day 31st All India Management Convention held at BITS, Pilani during 13-15 Feb. 2008. The Convention aimed to analyze the scenario with special attention to the Indian market with the inflow of ideas from both Industry and Academia because it would enable to bridge the gap between management theory and practice. The sponsors for the event were HPCL, Idea, Maytas, Nestle, Logitech, The India Cements Ltd., Strides, Colas Ltd. etc. The events namely, YMOM (Young Manager of the Meet), Forex, Clutters n clatters, Bidding, BizQuiz, Fortitude all oriented towards bringing out the knowledge, innovation, creativity and leadership skills of the participants aided in achieving the goal of the Convention. During a panel discussion on "Leveraging Technology for Global Business" Mr. Jayan Ramankutty from USA, co-founder & CEO of KRK Labs, said "Thrive in areas of chaos, which is now the Silicon Valley. It's a place full of Davids and Goliaths. So for the smaller



players to survive they are constantly trying to innovate". The spirit of innovation gleamed through a gamut of managerial activities at INTERFACE 2K8 not only showcased the abundant talent of the budding managers among student participants but also of the student organizers.

Earn While You Learn Program

On 29 April 2008, Prof. G. Raghurama, Deputy Director, presented certificates to eight student volunteers who did excellent work in the library



under the Earn While You Learn Program during Second Semester 2007-08. Names of the students are: Anusha Bellampalli (2004B3A4482), T. Aparna (2004A4PS296), Sunitha M. (2004A3PS155), Yamini V. (2004A1PS476), G. Swetha (2004A2PS746), K. Omkar (2005B2A2850), Vikram Singh Bhati (2003D2TS876), Vipin Jain (2005B5A1435). Prof Suman Kapur, Unit Chief, Community Welfare and International Relations, Dr. M. Ishwara Bhat, Librarian and Shri Devi Prasad Sharma, Assistant Librarian were also present on the occasion.

APOGEE 2008

The XXVI edition of APOGEE was held during 11-15 March 2008. An all India academic festival, with this year's theme 'Thought Pivot', APOGEE (A Professions Oriented Gathering Over Educational Experience) 2K8 was inaugurated by Prof. S. Venkateswaran, Former Vice Chancellor and Professor Emeritus-cum-advisor, BITS, Pilani along with Prof. L.K. Maheshwari, Vice Chancellor and the members of the Organizing Committee. Mr. Ch. Hari Krishna Reddy, President, BITSSU welcomed the guests and highlighted the theme of APOGEE 2K8. The General Secretary, BITSSU, Mr. Arjun Kamath proposed the vote of thanks. Apart from the students of the Institute, nearly 800 students from 60 other institutions, including IIT, Karagpur, NIT, Durgapur, BIT, Jaipur, etc., from various parts of the country participated in this five-day Long festival. The 25



lakh budgeted festival was sponsored by NETAAP, SAIL, GOOGLE, INFOSYS, Hindustan Times, Coca Cola, etc.

The fourth day of the festival was a memorable day for both the organizers as well as the participants because they found their beloved Chancellor, Dr. K.K. Birla visiting their project exhibitions and taking keen interest in knowing the details of the projects. Some important projects were demonstrated before the Chancellor and other dignitaries near the Institute workshop.

Students came up with some brilliant and innovative projects. While some were company sponsored, some others made the judges feel that they should be patented. More than 350 projects of different disciplines were displayed in various rooms and lawns of the institute which attracted huge audience. For the first time, outstation participants were allowed to demonstrate their projects. Apart from projects display, lectures by reputed scholars from the country and abroad, quizzes and debates were also organized by different discipline associations and clubs.

Projects of different disciplines were displayed under the following categories:

Automation

24 projects were displayed under this category. Some of the important projects of this category included Flame Extinguisher Robot, Self-help Kit for Blind, Autonomous Underwater Vehicle with Navigation Capabilities, Pole Climber, Intelligent Missile System, Automatic Cleaning Bot, Swarm Robotics, Autodrive, Robot Grass Cutter, Micro controller based intelligent speed breaker, Metro Train Prototype, and CCTV Security System with Intruder Alarm and Automatic Lighting System.

Communication and Network Systems

In this category, 25 projects were displayed. Some of the important projects of this category included COMBOT, Bluetooth Chat Module, Computer Smart System, SMS Reminders, Mobile Phone Fax System, Laser Communication System, Effective Drainage System, Voice Click Camera, Intrusion Detection System, Computer Health Management, and MANETS-an acknowledgement based approach for detection of routing.

Design Appliance

A total 22 projects were displayed under this category. Some of the important projects of this category included Smart Home 2.0, Design of multi-function heat pipe adsorption refrigeration system, Solar Water Purifier, RF Device to Track Endangered Species, All Terrain Vehicle, Security

Assault Vehicle, CVT Bike, Model Boat, Signing Robot, Implementation of MEMs to aid physically challenged people, Table Ice Hockey Bot, Desalinator, and Automated Luggage Carrier.

Energy

In this category, 24 projects were displayed. Some of the important projects of this category included Ocean Wave Energy Harnessing Power Plants, Wireless Charging, Fuel Based Compression Controller, Bio-hydrogen Production from Waste Water, Light saver, Wireless Power Transmission, Chemically cooled Can, Energy Preparation Using Osmosis, Mini Biogas Plant, Stirling Fan, Efficient Solar Cooker, and Lightening Harvest Device.

Environment

A total 22 projects were displayed under this category. Some of the important projects of this category included Biodiesel from Used Oils, Anti Smoking Device, Cyclone Resistant Structure, Algae based carbon dioxide absorbers, Eco friendly washing machine cum exerciser, Eco-friendly Home, Paper bridge, Biodiesel from chicken fats, Purification of Bacteria Contaminated Water, and Plastic Recycling System.

Food and Agriculture

In this category, 26 projects were displayed. Some of the important projects of this category included Grain Storage System, Multi-level Farming, Fruit Ripening Inhibitor, Irrigation Control, Agrarian Cart, Non-rusting Frictionless Sprinkler, Food Sensors, Soup Dispenser, Agri-glider, and Non pesticidal management option to control insect pest.

Health

In this category, 25 projects were displayed. Some of the important projects of this category included Medicine Bottle opener, Portable Embedded Medical clinic, Blind Stick with sensors, Advanced Asthma inhalers, DNA Computers, Targeted Drug Delivery for cancer, Removal of Copper from Water samples, and Computerized self Assessment Test for Smoking and Depression.

Industrial processes and Applications

A total 23 projects were displayed under this category. Some of the important projects of this category included Green cement, Wall Climber, Robotic Arm, Automation of tile Industry, Vacuum Adsorption Swing, Machine Failure Detection Systems, Motion manipulator, IR Spectrum Analyzer, and Fluidized bed Heat Exchanger.

Infrastructure

In this category, 25 projects were displayed. Some of the important projects of this category included

Earthquake Resistant Bridge, Electro Vault, Queue elimination in ATM centres using RFID technique, Multi level runway airport, Magnetic Levitation Train, High rise building, Indian Road Traffic Signal Simulation, Bridge safety System, Designing of a Military Airbase, Automation of animal house circuit, and Maintenance of E-store.

Material Sciences

In this category also, 25 projects were displayed. Some of the important projects of this category included Smart Materials, Detergent-less washing, Catalytic Membrane Reactor, Nano-Cem, Algorithm for Graph Isomorphism, Polymer LED's, Vacuum Bearing and Surface Tension Bearing for Brick Design Mix, and Preparation of Surface Oriented Liquid Crystal.

Resource Optimization

A total of 25 projects were displayed under this category also. Some of the important projects of this category included Design of Online Notice Board, Paw Pressure analgesimeter, Efficient Usage of Rain Water, Banana Paper, trail Blazer, Solar Food Dryer, Oilgae, Power Multiplier, Surface Colour Plotter, and Home Automation and Security System.

Signal Processing

In this category, 26 projects were displayed. Some of the important projects of this category included Smart Document Reader, Writing Robo, Colour Path Finder, Speech Controlled Wheelchair, Automated Smart Object Tracing System, Knock Lock, Remote voice Control, Visual Cryptography, Cell Phone Jammers, USB Bases PC Oscilloscope, and Mobile as a Controller.

Simulation and Mathematical Modeling

A total of 25 projects were displayed under this category also. Some of the important projects of this category included Optimization of Solid Diffusion Process, Dome Projector System, Im-Q enhancer, Neuro fuzzy stock prediction system, Simulation of Global warming, Simulation of a risk situation in fast breeder reactor, and computational Fluid Dynamics Simulations.

Software Design

In this category, 25 projects were displayed. Some of the important projects of this category included Vehicle Parking System, intelligent Linux Installer, Efficient Flash File System, 2D Positioning System, Smart XP, Integrated DBMS, BITS OS, Code Formatter, and BITSTOCK.

Transportation

A total of 28 projects were displayed under this category also. Some of the important projects of this

category included Electric Scooter with Vertical Parking, Automobile tracking Device, Remote Controlled F1 Car, Automatic transmission in Bicycles, Human Follower, Smart Car, Disaster Management Robot, Improved Pavements, Density Based Traffic Controlled Signal, and all Terrain Vehicle.

CARING BEYOND OUR WALLS

NSS

NSS BITS, Pilani chapter along with the Centre for Desert Development Technologies (CDDT), BITS and Tata BP Solar company installed solar electrification facility to run computers at the Government School, Raila on Saturday the 26th April 2008. The Computer centre and the Solar Electrification project were inaugurated by the Vice Chancellor of BITS-Pilani, Prof. L.K. Maheshwari in the presence of Deputy Director, Prof. G. Raghurama, Prof. N.V.M. Rao, Prof. Ravi Prakash, Prof. Rajiv Gupta, Prof. B.V. Babu, Prof. M.K. Kashiramka, the village sarpanch, Mr. Satvir Singh and the NSS coordinator and program officers.

To generate funds for this, the NSS team organized a Food Festival in BITS-Pilani on 8th October, 2006. The total cost of the project was approx. Rs. 2.5 lacs. The Tata BP Solar company, which installed this project, provided a concession to the tune of Rs.1 lac. About Rs.75000 was collected through the food fiesta and the Centre for Desert Development Technology [CDDT] unit contributed about Rs. 1,60,000 to install a 320 Wp 24 V DC Solar Power System.

Blood Donation Camp

NSS BITS, Pilani chapter with the help of Indian Red Cross Society organized a two day blood donation camp at the Students' Activity Centre during 4-5 April

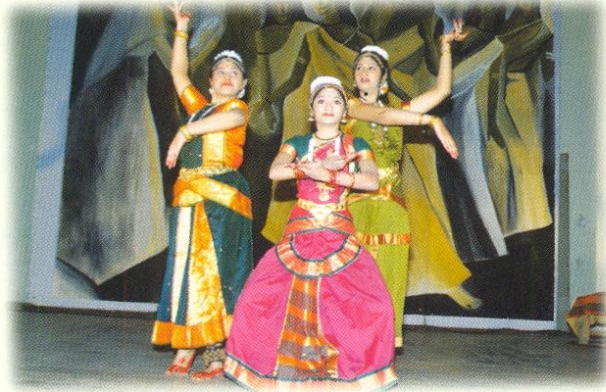


2008. A total 715 units of blood were donated by the students and staff members of the Institute. Prof. L.K. Maheshwari inaugurated the camp. Dr. Vijay of the Red Cross Society appreciated the helping spirit of BITS students and staff and said that this was the maximum blood donated by any educational organization in last two years.

CREATIVE ZONE

Sangamam 2008

Sangamam 2008, the three day classical music and dance festival was celebrated during 22-24 February 2008. Prof. L.K. Maheshwari, Vice Chancellor, BITS, Pilani inaugurated the festival. The members of Ragamalika presented episodes of Vana Parva from Mahabharatha and that was appreciated by one and all. Sangamam 2008 was fortunate to have the exhilarating performances by renowned musicians and dancers across India. The

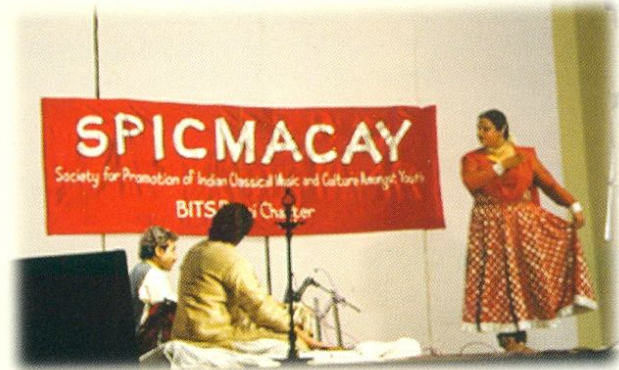


melodious violin recital by Lalgudi Shri G.J.R. Krishnan and Lalgudi Smt. Vijayalakshmi on the first day, the mindblowing Jugalbandhi by Smt. Jayanthi Kumaresh on Veena and Pandit Ronu Majumdar on Flute on the second day and the scintillating Bharat Natyam performance by Smt. Shobhana Balachandra and her troupe on the closing day mesmerized the audience. Prof. K.E. Raman, Deputy Director (Administration) presented mementoes to all the artists in the closing ceremony.

SpicMacay

Continuing with its endeavor to promote classical music and culture among youth, BITS, Pilani chapter of SpicMacay began its expenditure with a dance performance by the celebrated kathak exponent Rani Khanam on 21 April 2008 in the auditorium. Her performances included 'Aarti', description of 'Thar' and 'Uthan', and a performance on a 'gazhal'.

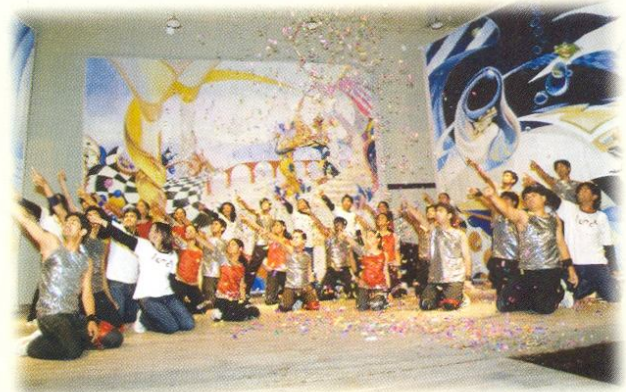
Miss Pallavi Roy, a student member from BITS, Pilani chapter, participated in the Gurukul Scheme



of SPICMACAY. She had an internship with social activist and Magsassay award winner Aruna Roy at Devdungri in Rajasthan. She got hands on experience on the social auditing; involved with the survey and awareness program related to *National Rural Employment Guarantee Act*. A valedictory function was also organized for the SPICMACAY members who graduated during Jan-May 2008.

Inbloom

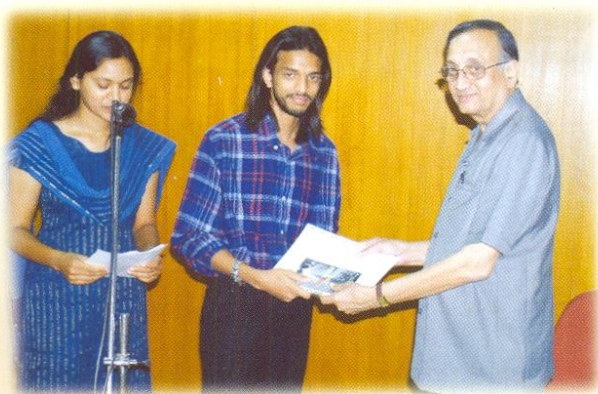
The inter-hostel cultural festival 'Inbloom' was celebrated on 19 April 2008 in the auditorium. All the eleven boys' hostels and one girls' hostel participated in the event. Organized by the BITS students union, it was a competition among the various hostels on stage for the title, the cultural portrait of BITS. The event drew a large number of audience who enjoyed every moment of this cultural evening. Budh and Gandhi Bhawans were declared as winners for the Best Music while Vishwakarma and Vyas Bhawans won the Best Dance award. The Best overall performance award was secured by Gandhi and Shankar Bhawans. Ms. Aarthi



Srinivasan of Music Club and Mr. G. Sumanth and Shyama Mohan of Dance Club judged the event.

MATRIX

MATRIX - a forum for radical information exchange-organized a range of activities including book reviews, a cartooning workshop, a quiz and a debate during the second semester of 2007-2008. The book



reviews included **Contact** by Carl Sagan and **The Last Mughal** by William Dalrymple's. The panelists for the book reviews were Prahar Mitra, Abhinav, P.S. Thrivikraman, Aditya Bawane and Soumyadeep Bhattacharya. During APOGEE 2008, MATRIX conducted a Cartooning Workshop by cartoonist Mr. Goutam. 75 students attended the workshop. To wrap up the activities of MATRIX for the semester, a valedictory function was organized on 26 April 2008 with Prof. B. Vishwanathan, Vice Chancellor, SVSVMV University, Kanchipuram as the Chief Guest. He appreciated the idea behind such a forum and congratulated the efforts of the organizers. Prof. L.K. Maheshwari, Vice Chencellor, BITS, Pilani and Prof. K.E. Raman, Deputy Director (Admn.) and founder member of MATRIX lauded the efforts of MATRIX and encouraged them to carry it forward.

Project Embryo

Project Embryo, since its inception in early 2006, has successfully conducted over 60 talks by leading BITS alumni and friends of BITS, covering most of the disciplines at BITS. In the second semester 2007-2008, two lecture series, one in Entrepreneurship and the other in EEE, and several talks on varied topics including frontier topics like Quantum Cryptography and Neutrino Physics, were organized. The Lecture series (3 lectures) on Entrepreneurship was given by Mr. Naveen Bisht (Ex-BITSian and Co-founder and Managing Partner, Luxmi Ventures, LLC). Mr. Prasenjit Bhowmik (Ex-BITSian, currently at Cosmic Circuits, Bangalore) gave three technical lectures on topics in EEE. Both the lecture series were integrated with the courses at BITS. Pranesh Sunderajan, an Ex-BITSian and a PhD student at MIT gave a very inspiring talk on

Gravitational waves. Prof. Naba Mondal (Chairman, Department of High Energy Physics, TIFR, Mumbai), gave a popular level exposition of the most ambitious science project funded by the Govt. of India -the India-based Neutrino Observatory (INO). Embryo Club also coordinated a talk on Quantum Cryptography by Depratim De of Microsoft Research, Bangalore, during APOGEE-2008.

Thanks for the untiring service

The following teaching and non-teaching staff of BITS, Pilani retired from their services during II semester 2008-09:

Faculty Member

Name	Department
Prof. S. P. Gupta	Chemistry
Mr. B.N. Sharma	Civil
Prof. M. Ganesh	Mathematics

Office Staff

Mr. J. P. Gaur	Management
Mr. M.P. Saini	Instrumentation
Mr. P.K. Bhati	FD-II
Mr. Chajju Ram	Mechanical
Mr. Gokul Prasad	Pharmacy
Mr. R.S. Verma	EEE
Mr. Mahabir Prasad	SWD
Mr. Makhan Lal Saini	SWD
Mr. Pramanand Gaur	Instrumentation
Mr. Suraj Bhan Singh	Instrumentation
Mr. Kheta Ram	ESD

We Miss You

During the II Semester 2007-08 we lost a few dear and near ones of the BITS family. We miss them and pray for their eternal peace.

Mr. Jugal Kishore, Attendant on 23 May 2008
Mr. PNVS Mani Kantha Boddu, Final Year Student on 6 June 2008
Mr. Arasarala Arun Teja, 2 nd year Student on 19 June 2008
Prof. T.C. Goel, Director, BITS, Pilani-Goa Campus on 6 July 2008
Smt. Manorama Devi Birla (wife of our Chancellor) on 29 July 2008.

INTRODUCING NEW FACULTY

<i>Name</i>	<i>Designation</i>	<i>Discipline</i>	<i>Research areas</i>
K. Nallasivam	Lecturer	Civil Engineering	Fatigue Analysis, Structural Dynamics & Finite Element Method
Parthapratim De	Assistant Professor	Electrical & Electronics Engineering	Adaptive Digital Signal Processing, Communication System
Arun Kumar Vaish	Visiting Faculty	Management	Micro Finance, Financial Market & Risk Management
Namrata Pancholi	Lecturer	Management	Knowledge and Human Resource Management
Sanjeev Kumar	Assistant Professor	Biological Sciences	Immunology and Vector Biology
Lalita Gupta	Assistant Professor	Biological Sciences	Molecular & Vector Biology
Pankaj Kumar Sharma	Lecturer	Biological Sciences	Plant Secondary Metabolism Enzymology, Plant Bio Chemistry
Prabhat Nath Jha	Lecturer	Biological Sciences	Microbial Bio Technology
Fahed Zulfeqarr	Lecturer	Mathematics	Commutative Algebra
Trilok Mathur	Lecturer	Mathematics	Fractional Calculus and Geometric Function Theory
Jasti Appa Swami	Lecturer	Languages	English for Specific Purposes, Materials Development & Academic Writing
Geetilaxmi Mohpatra	Lecturer	Finance	Environmental Economics

EDITORIAL TEAM

FACULTY

Meenakshi Raman, Sanjiv Kumar Choudhary, Virendra Singh Nirban, Pushp Lata

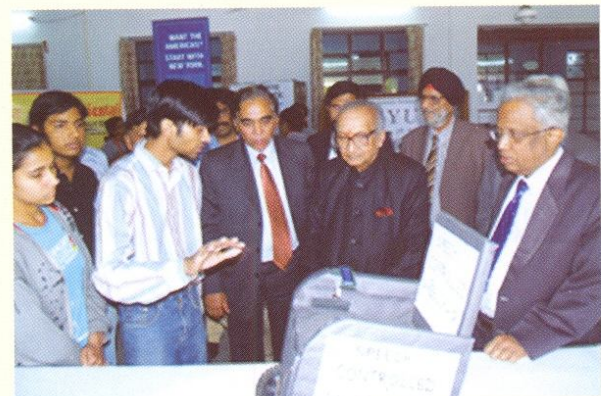
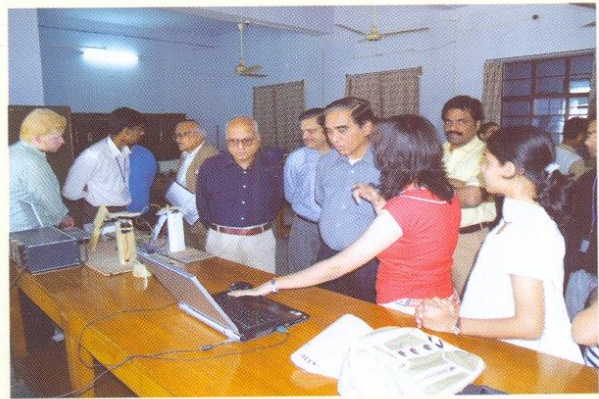
STUDENTS

Subhrojyoti Sarkar, Hitesh Mathur, Antara Sarkar, Abhishek Anand

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>

APOGEE 2008



बिरला ने देखे मॉडल, बच्चों का उत्साह बढ़ाया

राज्य के 26th टैक फेस्ट 'इंफो-2008' में बिरला उपस्थित हुए। उन्होंने बच्चों को प्रेरित किया और उनके उत्साह को बढ़ाया।



Hindustan Times
Corporate News
BITS Pilani wins business plan contest

Birla Group of Institutions has won the first prize in the international business plan contest organized by BITS Pilani. The contest was held in March and attracted entries from reputed academic institutions.



बिटिसयन ने किया 715 यूनिट रक्तदान

बिटिसयन ने एक रक्तदान शिविर में 715 यूनिट रक्तदान किया।

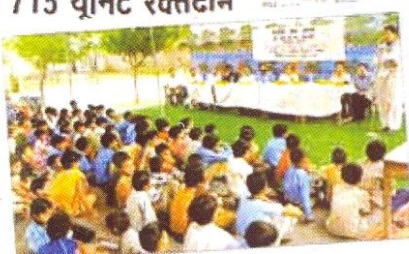
BITS Pilani's date with the Wodeyars

Book on Mysore royal family released at Cam...

BITS-Pilani launches research journal Curie

MT Correspondent Jaipur, April 15

grated learning process...



BITS online admission test begins today

Special Correspondent

BITS Admissions Test (BITSAT) a computer-based online admission test was introduced for the first time in India in...

BITS students to leave for Germany

HT Corres Jaipur, A

Prize winners. This year's meeting will centre on Physics and related areas. The Department of Science Technology (DST) will send...

बिटिस ने किया नौनिहालों का निहाल

बिटिस ने नौनिहालों का निहाल किया।

THE TIMES OF INDIA

City boy floats the idea of rural m-empowerment

The Swasthi members... support the idea...

India's first humanoid at US expo

HT Correspondent Jaipur, June 20

A TEAM of five BITS, Pilani students participated in the 2008 Global Humanoid Expo in the United States from June 13 to 14. The team showcased India's first humanoid, Acyut.

KK Birla lauds students' social concern, knowledge and vision

HT Times

Another BITS student, Vipul...

Maytas Infra-BITS Pilani to launch new course

Three-year B.S. proposed for company's employees

इंटरफेस-2008 का आयोजन

इंटरफेस-2008 का आयोजन किया गया।

शास्त्रीय संगीत से समां बांधा

शास्त्रीय संगीत से समां बांधा।

Two BITS Pilani students to attend leadership institute

Special Correspondent

JAPUR Two second-year students of the BITS Pilani Institute of Technology & Science (BITS-Pilani) have been selected to attend the annual Goldman Sachs Global Leadership Institute in New York City this coming July.

पिलानी में वैज्ञानिक संगम

पिलानी में वैज्ञानिक संगम।



Rural technology parks a development option

HT Correspondent Jaipur, May 27

WITH ACTIVE support from Natsam, BITS Pilani and...

Two BITS Pilani students to attend leadership institute

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केवीपीवाई-08 में अभिषेक का चयन

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Table 1: Top 50 Private Engineering Colleges of India

Rank	College Name	Established	Students	Faculty	Placements
1	BIT Mesra	1957	12000	1000	95%
2	BIT Pilani	1981	10000	800	90%
3	BIT Welingkar	1981	8000	600	85%
4	BITUP	1984	7000	500	80%
5	BIT Raichur	1984	6000	400	75%

They are among 75 students who would visit New York

Activities for participants include cultural events

अभिषेक का चयन।

Table 2: Top 50 Private Engineering Colleges of India (Continued)

Rank	College Name	Established	Students	Faculty	Placements
6	BIT Vellore	1984	5000	300	70%
7	BIT Chandigarh	1984	4000	200	65%
8	BIT Kalyan	1984	3000	150	60%
9	BIT Goa	1984	2000	100	55%
10	BIT Patna	1984	1500	75	50%

They are among 75 students who would visit New York. Activities for participants include cultural events.