

BITScan

Semester Notes

Issue 5



**BIRLA INSTITUTE OF TECHNOLOGY
AND SCIENCE**

**Pilani - 333031
Rajasthan**

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researchers, designers and engineers involved in planning, management and construction of different projects. Department of Science and Technology (DST) New Delhi, Council of Scientific and Industrial Research (CSIR) New Delhi, University Grants Commission (UGC) New Delhi and Board of Research in Nuclear Sciences (BRNS BARC) Department of Atomic Energy, Mumbai funded the Conference. Several researchers, academicians, field engineers and students attended the conference from various parts of the country.

National Conference on Mathematical Modelling and Analysis

Mathematics Group conducted a National Conference on Mathematical Modelling and Analysis during 8-9 October 2004. The thrust areas of the conference were Drug Design, Biological System, Environmental Pollution, Industrial Mathematics, Fluid Mechanics and



Prof. L.K. Maheshwari at the conference

Applied Analysis. The main objective of the conference was to provide a forum for advancing mathematical and computational research and to train individuals in interdisciplinary aspects of problem solving. 43 papers were presented at this conference.

Symposium on Prediction in Ungauged Basins for Sustainable Water Resources Planning and Management

Civil Engineering Group hosted a one-day Symposium titled “Prediction in Ungauged Basins for Sustainable Water Resources Planning and Management” (PUBSWRPM-2004) on 30 October 2004 with an intention



The Director releasing the proceedings

of bringing forth the developments in research in water management with specific reference to ungauged basins. The symposium was well attended by academicians, researchers and scientists. Delegates from Ministry of Water Resources, IISc., various IITs and other reputed institutions participated.

Workshops

Asia Regional Workshop on Promoting Sustainability of Community- Based Rural Transport Infrastructure

The workshop was organized during 6-8 September 2004. Sponsored by the Swiss Agency for Cooperation and Development (SDC) and the International Forum for Rural Transport and Development (IFRTD), it brought together a large number of practitioners in rural development mainly from India, Bangladesh, Cambodia, Sri Lanka and



Deliberations at the Workshop

UK. The key persons connected with the Prime Minister Gram Sadak Yojana (PMGSY) such as the Director General, National Rural Development Agency (NRRDA); Director, Central Road Research Institute (CRRI); and the Secretary, Indian Roads Congress also attended the Workshop. A few important issues were identified during the discussions and recommendations were made for taking the issues forward.

Workshop on building digital libraries

A four day training workshop on building digital libraries was held during 29 November- 2 December 2004. As the first of its kind in the western region of India, this national workshop with 42 participants from 14 different states benefited many library information professionals. The objective of



At the inauguration of the workshop

this workshop was to enlighten the participants on digital libraries and also provide hands on experience in building digital libraries using the software, D Space that has been developed by MLT Library in USA.

Seminars

National Seminar on Meeting Communication Challenges at Workplace

Realizing the importance of Communication in the professional world and also the need for teaching and learning effective communication skills, the Languages Group organized a two-day seminar on “Meeting



Dr. Raman introducing the theme

Communication Challenges at Workplace” during 10-11 September 2004 supported by the UGC and AICTE. Inaugurated by Dr. Y.S. Rajan, Principal Advisor, CII, Gurgaon and Mr. Arvind Mayaram, IAS, Director, RIPA, Jaipur the seminar was attended by 50 participants from academic institutions and industries.

National Seminar on Challenges Posed by IPR Regimes

The importance of Intellectual Property Rights for Public Sector and the role of IPR regime in helping both developing and poor countries by way of revenue generation were deliberated at the seminar held during 15-16 September



Prof. Richard Mahoney

2004. Inaugurated by Prof. S. Venkateswaran, Vice-Chancellor, BITS, Pilani, the seminar attracted participation from all over India and abroad. Dr. Chandrasekhar, Director, CEERI, Pilani delivered Guest Lecture and Prof. Richard Mahoney of Bio-design Institute, University of Arizona, USA delivered the Keynote Address. Research scholars at BITS also found the seminar useful.

Training Programmes

Academic Refresher Program II

Approached by *Hindustan Zinc Ltd. (HZL)*, Udaipur for the second time to organize a training program for its newly recruited employees, the Practice School Division conducted the 45-day Academic Refresher Course Program II during 9 October - 22 November 2004. With its objective of enriching the academic competence and



Employees of HZL at the course

professional skills of the employees, the program included lectures, laboratory practice and projects in various disciplines such as chemistry, chemical engineering, physics, English communication, project management and workshop practice. Faculty members from the respective groups delivered lectures and guided projects at this refresher course program.

Program on Professional Effectiveness

Management Group conducted a special programme for the benefit of BITS faculty on *Professional Effectiveness* during 26-27 October 2004 with its main focus on self improving their effectiveness as self, and part of the group and in terms of their contribution to the institution. 33 faculty members across different disciplines voluntarily participated in the programme. Prof. L. K. Maheshwari in his inaugural address highlighted the need for effective channelisation of resources - time, money and physical infrastructure to improve one's professional competence.

NABARD Training Program

The faculty of the *Civil Engineering Group* organized an *Advanced Training Programme on Water Resource Development and Management* for the officers of National Bank for Agriculture and Rural Development



Participants at Jhunjunu

(NABARD) during 3-7 November 2004 at the institute. Twenty officers of NABARD from various parts of the country participated in the program.

Earthquake Risk Management

The *Civil Engineering Group* was also entrusted by the Ministry of Home Affairs, Government of India with the prestigious responsibility of conducting a six-week training program “*National Program for Capacity Building of Engineers in Earthquake Risk Management (NPCBEERM)*” in two batches. This program aimed at training the faculty members of various engineering institutes and practising engineers of Public Works Department of the states Rajasthan,



Prof. L. K. Maheshwari welcoming the congregation

Gujarat, Dadra and Nagar Haveli and Daman & Diu in the much needed area of Earthquake Risk Management. The program was conducted in two phases of 3 weeks each. The first phase for Batch 1 was conducted during 1 – 19 October 2004. Inaugurated by Prof. T. K. Datta, IIT, Delhi, this program included lectures delivered by faculty of the Civil Engineering Group, BITS Pilani and also expert lectures delivered by Padma Shree A. S. Arya, Prof. Emeritus, IIT, Roorkee and Advisor to Ministry of Home affairs and by Prof. Mani Kant Gupta, IIT Roorkee on various subjects related to earthquake engineering.

The second phase of the program for Batch 1, which also overlapped with the first phase for Batch 2, was conducted during 13–31 December 2004.

Distinguished Lectures

On the home front, the institute invited several experts to deliver talks and lectures benefiting the faculty and students.

Mr. Subir Paul, Visiting Faculty, School of Planning and Architecture, Delhi gave a talk on the topic “*Sustainable Water Management and Sanitation and Efficiency of River Link Project*” on 21 September 2004.

Dr. Jaishree Paul, UGC Scientist, School of Life Sciences, JNU, New Delhi delivered a lecture on “*Molecular Analysis of Entamoeba and Associated Gut Flora of Human Intestine*” on 21 September 2004.

“*US FDA Generic Drug Approval Process and Post Approval Regulatory Issues for Generic Drug Manufactures*” was discussed by **Mr. K. Suri Babu**, Sr. Manager, Regulatory, Lupin Pharmaceuticals, Mandideep gave talks on during 24-25 September 2004.

Ms. Shibani Khorana, Vice President, Chinmaya Mission, New Delhi, International Youth Wing visited the campus during 25-26 September 2004 to discuss various issues on “*Hinduism*”.

Dr. Milap Nahata, Professor, Ohio State University, USA gave a lecture on the topic “*Recent Developments in Clinical Pharmacy Practice and Clinical Pharmacy Research in Paediatrics*” on 5 October 2004.

Dr. C M Gupta, Director, CDRI, Lucknow gave a talk on “*Drug Targeting on Infectious Diseases*” on 15 October 2004.

Prof. Dr. Wolfgang Bensch, Professor, Institute of Inorganic Chemistry, University of Kiel, Germany gave a lecture on the topic “*Thioantimonates as Structure Director*” on 18 October 2004.

Yogacharya Shri Prem Bhatia, Director, Viswa Bharati Yoga Institute, New Delhi gave a talk on “*Yoga Training and Yoga Therapy*” on 21 and 23 October 2004.

Shri Vinod Saighal, Director, EMS, Ex-Major General, New Delhi gave a lecture on “*Revitalising India and World Peace*” on 25 October 2004.

Mr. Subroto Mondal, Lecturer, University of Rajasthan, Jaipur gave a talk on the topic “*Texture Printing*” on 6 and 7 November 2004.

Dr. Marion Schulz-Reese, Managing Director, Fraunhofer (ITWMM), Institute Kaiserslautern, Germany gave a lecture on “*A Balance between Market Success and Scientific Competence*” on 1 December 2004.

Dr. Rajendra S. Varma, Scientist, US Environmental Protection Agency, Cincinnati, Ohio gave a talk on “*Greener Organic Using Alternative Reaction Conditions and Media*” on 3 December 2004.

Dr. Ajit Suri, Senior Research Scientist, Drug Discovery and Development, Eli Lilly and Co., USA gave a lecture on “*Role of*

Pharmacokinetics in Clinical Drug Development” on 6 December 2004.

Dr. Lakshmi Premkanth Kotra, Assistant Professor, Dept of Pharmaceutical Sciences, University of Toronto gave a presentation on “*Exploitation of Molecular Interactions in Post Genomic Era for Drug Discovery*” on 8 December 2004.

Enriching the Learning Experience

Faculty members from various disciplines attended and participated in a number of workshops and seminars the world over:

Dr. N Rajesh participated in the 18th *Biennial Conference on Chemical Education* at Iowa State University, USA from 18 to 22 July 2004.

Mr. Vikrant Kaulgud, a research scholar, attended a programme conducted by the *South Asian Network Operators Group IV* at Kathmandu, Nepal from 23 to 30 July 2004.

Dr. B K Maheshwari participated in the 13th World Conference on *Earthquake Engineering* at Vancouver, Canada from 1 to 6 August 2004.

Dr. S P Gupta chaired a session at *Euro QSAR 2004*, Istanbul, Turkey, 5 - 10 September 2004.

Dr. Suman Kapur attended the 12th annual meeting of *International Society for Biomedical Research in Alcoholism* at Heidelberg, from 29 September to 5 October 2004.

Dr. R N Saha attended the *AAPS Conference 2004* at Baltimore, Maryland, USA between 7 and 11 November 2004. He also actively participated in the *AAPS Annual meeting and Exposition* at the same venue presenting various papers on topics ranging from Gastro retentive Drug Delivery Systems to Controlled Release Matrix Tablets.

Mridula S Mishra presented a paper entitled “*Organised Retail Formats versus Traditional Retail Stores – Consumers and Retailers Perspective in India*”, in the *International Business Research Conference 2004* in Australia between 14 and 16 November 2004.

Dr. A K Sarkar attended the SDC sponsored *Workshop on Mobility and Health*, Switzerland, held on 26 November 2004. He also attended *Asia Regional Meeting of the International Forum for Rural Transport and Development* at Makassar, Indonesia, between 18 and 20 August 2004.

Dr. Surya Kanta Maharana of the Humanistic Studies Group presented a paper on “*The Message and Relevance of Indian Culture to the Contemporary World*” at the Asian Institute of Medicine, Science and Technology, Sungai Petani, Malaysia during 1-5 December 2004.



Dr. Maharana at the conference

Engineers' Day

The 37th Engineers' Day was celebrated on 15 September 2004. Engineers' Day is celebrated every year to pay homage to Bharat Ratna Sir M. Visvesvaraya on his birthday. The theme for this year's Engineers' Day Seminar was “*Engineers in Environmental Protection*”. On this occasion, Dr. S.D.



Paying homage to Dr. Visvesvaraya

Manjare, Dr. Madhusree Kundu, Dr. S.D. Pohekar, Dr. Omvir Chaudhry, and Dr. N. Rajesh presented papers related to the theme of the Seminar. Apart from the faculty members, a number of students from various groups/associations also presented papers on issues related to the theme.

International Philosophy Day

The Humanistic Studies Group in collaboration with UNESCO and Indian Council of Philosophical Research celebrated the International Philosophy Day on 17 November 2004. The Guests of Honour, Prof. J.P. Muliyl, Principal, Christian Medical College, Vellore; Dr. Chandrashekar, Director, CEERI, Pilani and Dr. Vinod Thukral, Tulane University, New Orleans, U.S.A. and Senior faculty members of the institute deliberated upon the theme of

the day - “Interrelationship between Philosophy, Science and Religion”.



The Guests of Honour

Pharmacy Week

The **Pharmacy Group**, BITS, Pilani celebrated the National Pharmacy Week during 21-27 November 2004. The Indian Pharmaceutical Association has been commemorating this occasion for the past 42 years with the objective of educating the public about the role played by pharmacists. In this connection, this year's theme was “*Know Your Pharmacist*”.

The Pharmacy Group also published a special issue of its health magazine “*Campus Health Communiqué*” based on the central theme of “*Community Pharmacy*”.

JOINING HANDS

Memoranda of Understanding

BITS, Pilani and Hetero Drugs Ltd., Hyderabad have signed an agreement fostering collaboration between the two organisations promoting educational, research and human resources development activities. Hetero Drugs would offer research problems to be carried out at BITS, Pilani.

BITS, Pilani and Intel Technology India Pvt. Ltd., Bangalore have joined hands to collaborate in the “Planet Lab” initiative specially to augment the IPv6 research being done at BITS, Pilani. Accordingly BITS will operate an off-campus centre at their Bangalore centre. This understanding aims at fostering collaboration between the two institutions to promote academic and research interactions.

Collaborative Projects

The **European Commission** has informed the **Government of India** of its willingness to jointly fund the **IPv6 Research programme** at **BITS, Pilani** in a meeting held at Brussels, Belgium. The total grant value according to the original proposal is Rs. 5 crore, a part of which will be funded by European Union under the FP-6 programme. Led by BITS, Pilani, the ERNET, University of Haute Alsace and INRIA in France and EURESCOM in Germany are the other international partners in this project, likely to begin in summer 2005.

IBM has expressed its interest in collaborating with **BITS, Pilani** in its wearable computing research programme which is currently an internal research initiative of CSD involving doctoral, higher degree and first degree students.

The **BITS- Oxford Journal Server Freeware Digital Library Project** has entered its next phase at CSD with the recently launched initiative of an advanced search engine design. The project has its site at <http://www.journalserver.org> and is mirrored at several places including Oxford University, UK, Purdue University, USA, and BITS, Pilani, India.

An **IBM- Linux Club** has been established in **BITS, Pilani** in November 2004 with active support from **IBM** in the form of software and specialist lectures by IBM experts.

With the help of CSD, **Infosys Technologies, Bangalore** conducted an awareness programme here towards the end of the first semester. An All-India challenge competition was also held.

BITS, Pilani also joined the **MSDN Academic Alliance Programme** as an accredited university during the semester. It has enabled students and staff to gain access to several resources in the domain of Microsoft Technologies.

HONOURS

Chancellor's Visit

The Chancellor, Dr. K K Birla visited the campus on 17 November 2004. He visited the Library and appreciated the collection at the Audio-Visual Section. Later in the evening he interacted with the faculty, student representatives and various state toppers.

He also offered his prayers at the Saraswati Temple after which he paid homage to the Late Shri G D Birla at his statue.



Dr. K.K. Birla with the Students

ACHIEVEMENTS

Aditya Birla Scholarship

In September 2004, 43 students from premier institutes across India like IIMs, IITs and BITS, Pilani contested for the **Aditya Birla Scholarship**. Three students from BITS namely **Pankaj Debnath, Digbijoy Neelim Nath and Swagat Borah** made it to the final list of 21



The Candidates from BITS

recipients. The scholarship will cover all academic expenses for the entire degree programme. The awardees were selected on the basis of academic excellence, participation in extra-curricular activities and their social vision.

VISTA – IIM Bangalore

IIM Bangalore conducted its annual management fest **“VISTA”** during 5 – 7 November 2004. “VISTA 2004” bore the theme “Innovating at the Frontier” that included games, quizzes and debates. A Team of 12 students led by Kavikrut, represented BITS, Pilani. P.S.S. Pramod, Divya K. and Kalyan C. won the first prize in the “The Finance Game”. A three member team comprising Sujeev B.R., G.V. Rajesh and Divya K. secured the third position in Chakravayuh, a contest dealing with efficient trading of financial instruments. The students from BITS,

Pilani also came third in “El Dorado”, a treasure hunt and won consolation prizes in “Informals - Brand Price Game”.



BITSians with Derek O' Brien

The **Government of India** has officially **acknowledged** the technology leadership of *BITS, Pilani* in the IPv6 based next generation networking research and development in its official roadmap for India.

Dr. N. Rajesh was awarded a consolation prize and certificate of appreciation for reaching the semi-finals in *Golden Jubilee Quiz* organized by *Department of Atomic Energy* -, on Radiochemistry and its applications held at *Bhabha Atomic Research Centre (BARC) Mumbai*, during 3-6 August 2004. About 50 faculty members from various institutions across the country participated.

Dr. Rahul Banerjee's book “*Inter Networking Technologies*”, Vol.1, published by Prentice Hall of India, New Delhi in 2003 has **received more than five citations** in various encyclopaedias.

Prof. B.V. Babu acted as a reviewer for technical papers submitted for presentation at three International Conferences like ICARA Second International Conference on

Autonomous Robots and Agents 2004, New Zealand.

Dr. Manoj Kumar reviewed a book on “Limit State Design of Steel Structures” for Oxford University Press.

Dr. S. Chakraborty and Mr. A. Vasan reviewed a book entitled “Strength of Materials” for Oxford University Press.

Dr P.K.Gupta reviewed 3rd edition of “Prestressed Concrete Structures” written by N.Krishna Raju, TMH Publication. The review is intended for modification of the book in the next edition.

A research team consisting of **Dr. Rahul Banerjee, J. Harshvardhan and Venkatesan**, has initiated a patenting process for a possible later-day technology transfer by BITS in using the IPv6 based technology developed at CSD.

The CSD provided the basic infrastructural support to the DLPD, BITS, Pilani for conducting **live desktop video-conferencing based interactive sessions** for all courses offered by BITS, Pilani in DL mode during the first semester 2004-05. This is the first time when this experiment, which was first conducted for a single course three semesters ago, has been expanded to include all courses offered through this mode.

Prof. Rajiv Gupta reviewed a paper entitled “Municipal Solid Waste Land filling Siting using Intelligent System” for Journal of Integrated Waste Management, Science, and Technology. He has also reviewed a book entitled “GPS and Surveying using GPS” for

Tata McGraw-Hill Publishing Company Limited,
New Delhi.

Dr. Sangeeta Sharma chaired a session on Business Communication at the Second AIMS International Conference on Management, at IIM, Calcutta, held between 28 and 31 December 2004.

Dr. Meenakshi Raman has been appointed as an **expert committee** member by IGNOU, Delhi for the course EEG-04 (English for Practical Purposes).

Significant Projects

The Ministry of Home Affairs, Government of India, New Delhi has sanctioned **Rs 31 Lakhs** for organizing the National Programme for Capacity Building of Engineers in Earthquake Risk Management.

Microsoft Research has granted **US \$40000** for a project proposal submitted by Dr. S. Gurunarayana titled *“ICT enabled intelligent water management systems”*.

The Pharmacy Group has been sanctioned financial assistance for Departmental Research Support under the UGC Special Assistance Programme. In this regard, **UGC** has already released an amount of **Rs. 31 Lakhs** for the purchase of special equipment and instruments.

Department of Science and Technology granted **Rs. 22.0 Lakhs** to the Civil Engineering Group under FIST (Fund for improvement of S & T infrastructure in Universities and Higher Educational Institutions) grant for the purchase of

Hardware, Software related to GIS and remote sensing maps etc. Duration of the project is five years.

As a part of this project an Industrial CNC Vertical Machining Centre (LMW KODI 40 Klein) has been added to CNC facilities of the workshop, which has a superlative range of compact vertical machining centers that are meant for cost effective production, better process control and great flexibility.



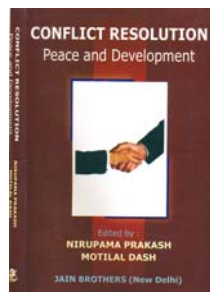
The new CNC machine

Research grant of about Rs 4.5 Lakhs from **Indian National Committee on Hydrology** was sanctioned to Dr K. Srinivasa Raju to carry out the research project entitled *“Artificial Neural Networks for Water Resources Planning”*. He also reviewed a paper for Journal of Hydrologic Engineering, American Society of Civil Engineers, USA and for Hydrology journal of Indian Association of Hydrologists, Roorkee.

National Programme on Earthquake Engineering Education (NPEEE) has sanctioned a handsome library grant. As part of this grant, institute will receive books worth about Rs. 1 Lakh.

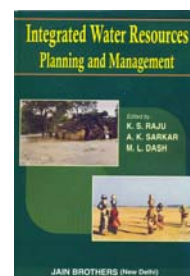
UGC Support for the project *“Cloning and Characterisation of the regions of the Apicoplast from P. Vivax”* for a period of three years led by Dr. Ashish K Das, Assistant Professor, Biological Sciences Group has been sanctioned. The amount allocated for the project is **Rs. 9, 95,000.**

UGC Project *“3-Benzisoxazolylpiperdines and Quinoxalinyloperazines as Potential and Typical Antipsychotic Agents”* led by Dr. V S Rao, Professor, Chemistry and Deputy Director, has been allocated an amount of **Rs. 4,94,000** for a period of three years.



Conflict Resolution- Peace and Development, Jain Brothers, New Delhi, 2004. Ed. N Prakash, Motilal Dash.

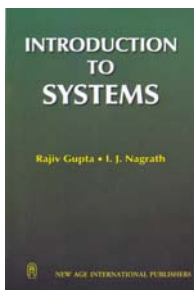
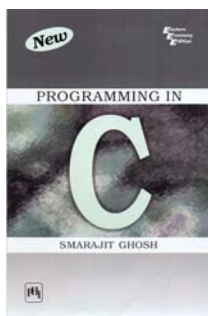
Integrated Water Resources Planning and Management, Jain Brothers, New Delhi, 2004. Ed. K S Raju, A K Sarkar, Motilal Dash.



IN PRINT

With the aim of making quality-knowledge-available to all, some faculty members published books while others contributed to journals of national and international repute:

Programming in C, Prentice Hall of India, New Delhi, 2004. Smarajit Ghosh.



Introduction to Systems, New Age International Publishers, New Delhi, 2004. Rajiv Gupta, I J Nagrath.

RENEWING THE BONDS

This semester the batch of 1974-79 visited their Alma Mater on the silver jubilee reunion organised by BITSAA. In all, 91 alumni came with their families to visit the campus. All of them arrived in the first week of October 2004. Their 3-day visit began with the



1974-79 Batch

Director, BITS, Pilani, offering them a warm welcome. The students of Padia School presented a Band Drill. The very second day they went on a campus tour along with their families. And finally they presented a cultural show along with the current students. BITSAA also organized the graduating party at the VFAST Hostel for the Class of 2005.

ONWARD

Goa Campus

The BITS, Pilani-Goa campus started functioning in August 2004. The Chancellor, Dr. K K Birla and the Vice-Chancellor, Dr. S Venkateswaran graced the occasion. The new campus has about 560 students as its first batch and offers the various Engineering disciplines – Chemical, Electrical



The Chancellor at the inauguration of the Goa Campus

& Electronics, Electronics & Instrumentation, Mechanical and Computer Science apart from the Sciences – Biology, Chemistry, Economics, Mathematics, Physics – and Information Systems.

Animal House

Based on the guidelines given by CPCSEA, New Delhi, the Pharmacy Group, BITS, Pilani



The new Animal House

has set up the Central Animal Facility to provide care for the laboratory animals. With a huge investment of Rs. 60 Lakh, this animal house contains state-of-the-art housing conditions and features that ensure a germ-free and zero-pollution environment. An extra research laboratory with advanced instrumentation has also been included for carrying out fundamental and applied research in the areas of pre-clinical Pharmacokinetics and Molecular Pharmacology.

Poetry Club

Budding poets in BITS, Pilani have found a common forum to share and channel their passion for verse. The Poetry Club is the newest club in BITS, Pilani and caters to all BITSians with an appetite for poems. Headed by Bodhisatwa Sadhu, the club kicked off during Oasis 2004 by conducting four events- “Act a Poem”, “Poem a Sketch”, “Sing a Poem” and “Tattered Poetry”. All the events were successful and received a good response from BITSians as well as from outstation participants.

MATRIX

Mind and Thought in Radical Information Exchange (MATRIX) was formed on 24 September 2004 with the objective of providing a forum to encourage students to express their creative thoughts and broaden their levels of awareness in all fields. MATRIX put up posters regularly commemorating famous scientists, thinkers and writers, and the group also organized a series of lectures throughout the semester. These included talks by Ms. Shibani Khorana, Vice-President, Chinmaya Yuva Kendra; Dr. Santosh K.

Pandey, a classical musician and V. Arjun, a BITSian. To encourage students to read beyond the needs of the curriculum, MATRIX also launched a book reading group activity in October.

CARING BEYOND OUR WALLS

NSS

Parampara, the stall jointly organized by NSS, Gyanganga and CEL was inaugurated by Professor. L.K. Maheshwari on 14 August 2004. The products sold were manufactured by the Self Help Group (SHG) developed by Gyanganga, the profits of which went to the village women involved in this SHG.



Parampara Stall at BITS-Coop

The NSS special camp was held between 21 and 30 October at Thirpali village in which around 100 students and faculty participated.



The gathering at Thirpali Village

The activities included renovation of school building, road repairs and also health check-up. Prof. K. E. Raman, Deputy Director was the Chief Guest at the valedictory function. The efforts made by the BITSians were highly appreciated by the villagers.

Sri Rajendra Singh, Magsaysay Award winner and popularly known as 'Waterman', visited BITS, Pilani to speak on water conservation and harvesting on 20 December. More than 200 participants benefited from the lecture.



Sri Rajendra Singh

CREATIVE ZONE

SPICMACAY

The activities for the semester commenced with an enchanting Bharatnatyam performance by Ms. Pratibha Prahlad. It began



Ms. Pratibha Prahlad

with the traditional *Pushpanjali* followed by numerous pieces in *Raag Mohanam* and *Raag Kanada*. The performance ended with a thillana in *Raag Dhanashri*.

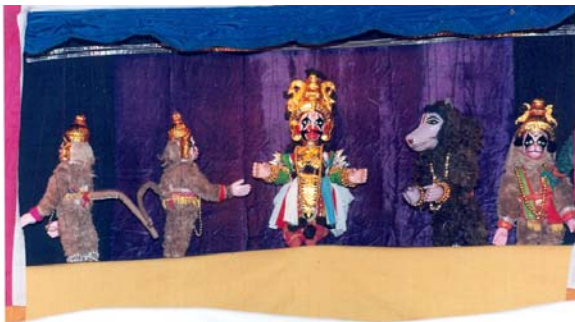
Music with a difference is an apt description for the *Sidigoma* group, which performed in BITS, Pilani as the second event of SPIC-MACAY unfurled. The first part called “*Baitha*



The Sidigoma Group

Dhamaal” consisted of pieces, slow in speed, performed while sitting. The second part called “*Khadi Dhamaal*” had the performers dressed up in traditional outfits dancing to the immensely fast beats of the singers. The show was a grand success.

The third event of the semester was taken over by one of the most popular puppet troupes of India, “*Kagga Kamat and Troupe*”. The show depicted the episode of Lanka Dahan from the Ramayana. Although



The Puppet Show

traditionally the shows are performed in Kannada, the artists included a bit of Hindi too as an attempt to add more cultural value to the already rich tradition. Towards the end, the main performer gave a lecture demonstration about the manipulation of puppets and their compliance to the art of “*Vakshagana*”.

The activities for the semester concluded with the Dhruwad concert by Shri Ramakant Gundecha and Shri Umakant Gundecha who performed the *Raag Bageshwari*.

Ragamalika

Besides the several Fresher’s concerts which the forum organizes every semester, Nriyaranjani, a dance evening attracted a large crowd.



Nriya Ranjani

BOSM 2004

BITS Open Sports Meet – BOSM 2004 was the 19th edition of the All India Sports Inter-Collegiate that BITS, Pilani conducts annually. This year, over sixty colleges participated in various events and competitions, conducted during 16 – 20 September 2004.



Prof. K.E. Raman releasing the Souvenir

A friendly basketball match followed the inaugural ceremony between College of Engineering, Pune University and BITS. Basketball, as usual, remained the most crowd-pulling event throughout the festival. Events introduced in the recent years like Carom and Power-lifting witnessed increased participation. The BOSM Quiz also attracted many contestants from BITS and other institutions. The Quiz provided a significant insight into the field of sports to the audience. Football and Athletics attracted an enthusiastic participation from contesting teams as well as the audience. Sponsors for the meet included Pepsi, BSNL, Adidas, Balbro Sports and others.



BOSM 2004

OASIS 2004

OASIS 2004, the annual All India Cultural Festival organized by BITS, witnessed a large number of colleges visiting the campus and contesting in as many as 67 events conducted over a non-stop duration of 96 hours from 24 to 28 October 2004.

The inaugural ceremony began with an impressive multimedia presentation that showcased this year's theme - "Expressions Unleashed". This was followed by an introduction to the union members and later the chief guest for the evening Prof. L.K.



Students performing at the inaugural

Maheshwari, lit the ceremonial lamp. He then released the Art and Decoration structure of a dragon and a serpent depicting the victory of good over evil. The event concluded with cultural performances by students of various clubs.

The main attraction of OASIS 2004 was the line up of the professional shows including Euphoria, Antaragni and Mother Jane. All the three bands were from three different streams of music – pop, fusion and rock respectively and were totally successful in impressing the BITSian crowd.

Other popular events included Choreo, Gabbar Mix and the Street Plays. The much awaited Oasis Quiz provided the participants with an opportunity to put their intellects to test. The Centre for Entrepreneurial Leadership conducted a host of exciting events involving high prize money. Companies like Amkette, AirTel and Coca Cola sponsored the games and events. Pizza Hut came up with a novel idea of setting up an exclusive counter for the BITSians.



Choreography Performance during Oasis



EDITORIAL ADVISORY BOARD: Dr. (Mrs.) Meenakshi Raman, Dr. (Mrs.) Sangeeta Sharma, Dr. Binod Mishra, Ms. Sushila Rathore

EDITORIAL BOARD: Kavikrut, Adi Srikanth, Sunil Seetharaman

PHOTOGRAPHS: Pramod Saini



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

Please feel free to send your comments, suggestions or feedback of any kind to mraman@bits-pilani.ac.in

INTRODUCING NEW FACULTY

S. No.	Faculty	Group	Research Areas
1	Dr. Arvind Kumar Sharma	Chemical Engg.	Environmental Engineering, Fluidisation, Adsorption, Bio-Chemical Engineering
2	Dr. Amiya Kumar Jana	Chemical	Process Control, Modelling of Simulation, Petroleum Refinery
3	Mr. Rahul V. Ralegaonkar	Civil Engg.	Passive Solar Architecture
4	Dr. Piyush Topdar	Civil Engg.	Mechanics of Solids
5	Dr. Priti Maheshwari	Civil Engg.	Soil Structure Interaction, Ground Engineering Modelling & Analysis
6	Dr. V.R. Vinayaka Rao	Civil Engg.	Pavement Engineering
7	Mr. C. Ram Babu	Electrical and Electronics Engg.	Image Processing and Operating Systems
8	Dr. Kumar Bappaditya Sahu	Mechanical Engg.	Computational Fluid Dynamics
9	Dr. Hemant R. Jadhav	Pharmacy	Synthesis/ Semi-synthesis of Natural Products, Chemical and Biological Standardisation of Natural Products
10	Dr. Rajdeep Niyogi	Computer Sciences	Algorithms, Logic, Planning, Data Security.
11	Dr. Sandeep Pokharia	Chemistry	Organometallic Chemistry, Natural Product Chemistry
12	Dr. Pradipta Purkayastha	Chemistry	Photochemistry and photophysics of medically potent, fluorophores in homogeneous and microheterogeneous environments including cyclodextrins, micelles, reverse micelles, lipids, proteins, etc.
13	Dr. Dalip Kumar	Chemistry	Development of Novel Supported Reagents, Design, Synthesis and DNA Cleavage Studies of Endiynes.
14	Dr. Aditi Sangal	Chemistry	Organic Electrochemistry and Nanotechnology
15	Dr. Dilip Kumar Maiti	Mathematics	Computational Fluid Dynamics
16	Dr. G Venkiteswaran	Mathematics	Particle Methods for Partial Differential Equations of Parabolic Type in high dimensions
17	Dr. Chandrashekhar	Mathematics	Queueing Theory, Reliability, Stochastic Process
18	Dr. Satakshi	Mathematics	Order Reduction of Linear Systems using Response Matching Technique, Genetic Algorithm
19	Dr. Vivek Kumar	Mathematics	Numerical Analysis
20	Dr. Neelam	Mathematics	Mathematical Modelling and Bio Fluid Mechanics
21	Dr. Champak Baran Das	Physics	Nuclear Physics, reactions, Phase Transitions in Nuclear Matter, Multi-fragmentation
22	Dr. Prakash Somani	Physics	Nano-science and Nanotechnology, Organic Electronics/Organic-Inorganic Hybrid Electronics, Advanced Materials and Devices

BITS 'n' Pieces



THE ECONOMIC TIMES NEW DELHI
MONDAY 27 DECEMBER 2004

BITS and bounces
By Anil Singh
BITS Pilani has another feather in its cap. A list of Global Business Influentials compiled by a prominent overseas magazine features two alumni of the institute. The list of 25 leaders in a broad range of industries recognised for setting standards in areas like innovation, globalisation and effecting change included two Indians: Vivek Paul, CEO of Wipro Technologies and Balaji Krishnamoorti, CEO of Planar Systems—both BITS alumni.

Campus Rumpus

By Anil Singh
Wipro Technologies, a software developer and a Bachelor of Technology from BITS Pilani where he worked at GE and has more recently led Wipro Bala Co and has more recently led Wipro Technologies' growth into a \$1 bn force in IT services. He has an MBA from the University of Massachusetts and a Bachelor of Engineering from BITS Pilani where he was also captain of the swimming and water-polo teams. Balaji Krishnamoorti received a BS and an MS and a PhD in computer science from the University of Massachusetts. At Planar Systems he created a system that rewards rank-and-file employees first, before moving up the management chain founded in the belief that it induces every employee to create greater shareholder value.

BITS MSc Degree Award For Dr Reddy's Employees

OUR CORPORATE BUREAU
Hyderabad, Sept 13

At a recent convocation, 52 employees of Dr Reddy's Laboratories were awarded MSc in Pharmaceutical Chemistry by the BITS Institute of Technology and Science (BITS), Pilani. The company had signed a memorandum of understanding (MoU) with BITS to promote educational and research activities in the areas of chemistry, pharmacy and biotechnology.

BITS operates an off-campus centre at Dr Reddy's where educational programmes are conducted to meet the development needs of Dr Reddy's employees. These programmes are equivalent to the corresponding degree offered on campus. Dr Reddy's has a learning centre, Andaz, which conducts the activities. It was started in 1998 with the objective of building a learning culture in the organisation and helping employees achieve a balance between work and personal life.

The company offers both technical and managerial development programmes for its employees.

BITS admission test goes online

BY Correspondent
New Delhi, December 13

STUDENTS CAN now choose the date and time of their entrance test for admission to the BITS Institute of Technology and Science (BITS)-Pilani. In a move that will be the first of its kind in the country, BITS Pilani will conduct a computer-based online test for admissions to its courses from next year onwards. Till this year, the institute admitted students on the basis of their performance in the class XII board examinations.

The online test envisaged will be similar to the GRE test. BITS offers courses in engineering, science, medicine as well as management and the test will be common for admission to all courses. The institute will start a 30-day advertisement on December 18 and candidates can apply till January 21.

Advantages to the students will be immense. At BITS-Pilani vice-chancellor Prof S. Vasudevaran puts it, "A student can now choose the test date and date for the test as per his convenience. The candidate is also likely to feel more relaxed as a result." The test will be conducted at about 30 centres in the country from April 19 to June 20. But unlike the GRE exam, each candidate can appear only once. The questions for the test will be from a huge question bank. Candidates will know their score immediately after the test.

Candidates will sit before a computer at the test centre and the questions will be presented on the screen but he will then have to select his answer through the keyboard or mouse. As is evident, the candidate will also not need any special computer skills. Further, a sample test will be made available at the test-taker's website: <http://www.bits-pilani.ac.in/BITSAT/> to candidates from February 1 onwards.

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