

Semester-I notes 2010-11

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BITS Pilani



BITS Pilani
Pilani Campus

editorial

turn of events

From sizzling August to icy December, it has been yet another eventful semester for BITS, Pilani as plethora of events kept adding more illustrious chapters to the glory of the institute. To count among the most outstanding events is the visit of honourable Chief of Army Staff, Gen. V K Singh who, accompanied by his wife Mrs. Bharti Singh, graced the institute on 4 December 2010. The memories of his visit will be cherished by the BITS community for a long time to come. General VK Singh's visit also fructified academically with the General announcing an initiative of the collaboration between Army and BITS, Pilani in terms of offering postgraduate and collaborative research programs. Another major development of the semester was the appointment of Prof. L K Maheshwari who was designated as Professor Emeritus & Advisor to the Chancellor of the institute.

→ Visit of Chief of Army Staff, Gen. V K Singh



Consequent upon this happy missive, the institute will continue basking in the seasoned guidance of Prof. Maheshwari.

Speaking a bit more retrospectively, the semester started with a warm welcome to the freshers including the admission of 21 all India board toppers. The institute's tryst with development has not been confined to the academic achievements alone; in its quest to achieve excellence, the

services of a Professional Counselor Ms. Bharti Mohan Borah were hired. Appointed in consonance with the recommendations of the mission 2012 Task Force, Ms. Borah would regularly offer our students academic and professional counseling.

→ 21 board topper 2010



The formal announcement of *seed grant* and *sabbatical leave* policies made by our revered Vice Chancellor Prof. B N Jain, was profusely welcomed by BITS fraternity. The institute had its moments of further glory when Dr. Navneet Goyal, Dr. Poonam Goyal and Dr. Anil Rai were awarded the IBM Scalable Data Analytics for a *Smarter Planet Innovation Award 2010* carrying \$15000 cash prize for their project proposal titled "Developing a Smart Crop Management System Using Data Analytics".

Carrying on with their outstanding work, SPICMACAY BITS, Pilani chapter hosted a Norwegian Group *Strings Unlimited* comprising the noted artists Kristin Karlsson, Kristin Skjolaas, Einy Langmoen and Christine Bigjerde. The troupe left the audience spellbound by their splendid string quartet performance.

As always, this semester also saw our students bringing laurels to the institute by winning prestigious awards and prizes in various competitions. To name one in the impressive list is **FIRA World Cup** for Humanoid AcYut 4 designed by BITS, Pilani students. It performed a feat of lifting a weight of 40CDs together, thus creating a world record. AcYut was given a special award by the *FIRA* for setting the world record in weight lifting in the large sized category.

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

vision 2020: mission 2012

Towards achieving the goals of mission 2012 project, there has been considerable progress made during the semester. BITS conducted “**My BITS | My Voice**” engagement survey involving faculty, staff and students of the institute with the help of an external agency, *Gallup* to assess the experience, expectations and emotional bonding of stakeholders with BITS. The survey witnessed an enthusiastic participation and the results are expected during March 2011 and will be shared with all faculty, staff and students. The university wide Enterprising Resource Planning has formally entered the implementation phase. The product chosen is Oracle’s ‘PeopleSoft’ and the implementation partner is WIPRO. On the academic front, the major exercise of curriculum benchmarking for 30+ programs was completed during this semester. The results of this exercise were shared with the faculty through workshops held in all the four campuses with participation of more than 100 faculty members. Subsequently, some of the changes in the curriculum will be implemented from the semester beginning August 2011. A number of initiatives are being formulated in order to support the professional growth of the faculty and to enhance their overall performance. Our Vice Chancellor Prof. BN Jain formally announced **seed grant** and **sabbatical leave policies** for faculty. Proposals have been invited for seed grant support and the submissions are being evaluated. A grant of Rs. 2 crore has been announced by the Chancellor Dr. Kumar Mangalam Birla through Aditya Birla Science and Technology Center of ABG group to invite proposals from BITS faculty for industry relevant projects. Towards modernization of Pilani campus, seven architects were invited to submit the concept notes. The evaluation of these

submissions and finalization of the architect is in its advanced stage. In order to enhance the BITS brand, two external agencies (Perfect Relations and Fractal Link) have been appointed. To support the sponsored research activities, BITS brought on board Mr. S N Zindal in the role of Chief Research and Development Officer. Similarly for the ERP implementation Mr. H Krishnan has been appointed as a consultant. Both Mr. Zindal and Mr. Krishnan come with rich experience in their respective fields.

a confluence of ideas

academia:

Seminars / Conferences / Workshops / Training Programmes

Indo-Taiwan Workshop on Nano, Microelectronics & Embedded Systems (24 -25 September 2010)

BITS, Pilani conducted a two- day Indo-Taiwan joint workshop on Nano, Microelectronics & Embedded Systems at Pilani on 24-25 September 2010. This was jointly organized by EEE, Instrumentation and Computer Science Departments of the institute. The objective of the workshop, to initiate joint research proposals in the areas of Nano, Microelectronics and Embedded Systems, was deliberated by the experts from India and Taiwan. The workshop had sessions on Embedded Systems Design, VLSI Design and Implementation, High Performance System Design and MEMS and Process Technology. A panel discussion on Microelectronics research collaboration between India and Taiwan was also held. Scholars from Taiwan, IIT Delhi, DIT New Delhi, Kurukshetra University, MNIT Jaipur, CEERI Pilani and faculty members from the BITS Campuses in Pilani, Goa and Hyderabad and students of BITS, Pilani participated in the workshop. This workshop was sponsored by the Dept. of Science and Technology (GOI) and CII.

→ Indo-Taiwan joint workshop on Nano, Microelectronics & Embedded Systems



DAE Symposium on Nuclear Physics (20 - 24 December 2010)

→ Inauguration of DAE Symposium on Nuclear Physics



A four-day DAE Symposium on Nuclear Physics was held in BITS, Pilani during 20-24 December 2010. The symposium was inaugurated on 20 December by Dr. R K Choudhury, Head of the Nuclear Physics Division of BARC (Bhabha Atomic Research Centre), Mumbai. In his introductory speech he acknowledged the fact that

for the first time a symposium was organized in a technical institute. He appreciated BITS for providing a platform to talk about the language between science and technology. Highlighting the unique aspects of BITS, Pilani, Prof. G Raghurama, Director, BITS, Pilani welcomed all the participants and termed this occasion as a conglomerate of best minds and expressed his desire to initiate a new programme in nuclear physics. The inaugural address was given by Prof. Bikash Sinha, DAE Homi Bhabha Professor, Variable Energy cyclotron Centre, Kolkata on *Contemporary Nuclear Physics-Terra Incognita*. In his inaugural speech he reiterated the fact that science drives technology. He also articulated the view that we have a social responsibility and we should pass on the wisdom for the benefit of poor people.

→ DAE Symposium on Nuclear Physics



In the symposium there were invited talks, oral and poster presentations on Nuclear structure, low and medium energy nuclear reactions, Physics with radioactive beams, Nuclear Astrophysics and nuclear matter, Intermediate energy nuclear physics, Physics of hadrons and QCD, Relativistic nuclear collisions and QGP, Accelerators and instrumentation for nuclear physics, etc. Around 350 scientists and research scholars working in the field and about 15 foreign participants attended the symposium.

In the valedictory function Dr. R K Choudhary informed the audience that 354 papers apart from 21 Ph D papers were presented. Out of the total 350 participants, 145 were students. Prof. G Raghurama, Director, BITS, Pilani was the chief guest. Dr. S N Karbelkar being the local convener and Dr. D C Biswas being the national convener of the symposium proposed the vote of thanks and shared their experience with the delegates on this occasion.

Short Filmmaking Workshop (11-17 August 2010)

A seven-day lecture series cum workshop on *Short Filmmaking* was organized by the Department of Languages during 11-17 August 2010. The workshop was coordinated by Dr. Geetha B., the instructor-in-charge of the course BITS C395: Short Film and Video Production. The resource person for the workshop was the national award-winning filmmaker Mr. Abhaya Simha G. A. Mr. Simha is a post graduate diploma holder from the world-renowned Film and Television Institute of India (FTII), Pune. The workshop covered various theoretical aspects of film making and also gave hands-on experience to the participants. It covered topics ranging from 'Why Make Films', Story and Script writing for Films, fundamentals of Camera and Cinematography, and Basics of Sound to the final Post Production stage. The workshop culminated in the production of a short fiction film. This

→ Short Filmmaking Workshop



workshop was a part of the elective course on 'Short Film and Video Production' which is a unique attempt at formally giving an exposure to students of BITS, Pilani to the world of film making.

visits by faculty enriching the learning experience international visits

Dr. Sushil Kumar delivered a talk on *Reactive Extraction of Nicotinic Acid with Tri-n-Octylamine Dissolved in Different Diluents* in 2010 at AIChE Annual Meetings (organised by American Institute of Chemical Engineers), Salt Lake City (UT) USA during 7 – 12 November 2010.

Dr. Hitesh Datt Mathur presented a research paper on *Enhancement of Power System Quality using Distributed Generation* in IEEE Conference on Power and Energy 2010 at Kuala Lumpur, Malaysia, on 30 November 2010.

→ Dr. Hitesh Datt Mathur



Dr. Pratik N Sheth participated and delivered a talk on *Combined Transport and Kinetic Modeling of Downdraft Biomass Gasifier* in 2010 at AIChE Annual Meetings (organised by American Institute of Chemical Engineers), Salt Lake City (UTAH) USA during 7 – 12 November 2010.

G. Venkiteswaran visited Technical University of Kaiserslautern, Germany and delivered a talk on *Quasi-Monte Carlo Methods for Diffusion*, on 24 September 2010.

→ Dr. Yashvardhan Sharma



Dr. Yashvardhan Sharma presented a research paper entitled *Multi - agent Systems: A Novel Perspective* at International Congress on Computer Applications and Computational Science (CACS) 2010 held in Singapore during 4–6 December 2010.

Dipaloy Datta participated and presented a paper on Separation of Nicotinic Acid from Aqueous Solution by Reactive Extraction using Tri-n-butyl phosphate and Tri-n-Octyl-amine in Decane-1-ol + Cyclohexane (1:1 v/v) at the 17th Regional Symposium on Chemical Engineering (RSCE2010) organized at Queen Sirikit National Convention Center, Bangkok, Thailand during 22–23 November 2010.

**invited talks
delivered /
workshops
conducted
by faculty members**

Prof. B N Jain, Vice Chancellor, BITS, Pilani participated in the Panel Discussion on *University – Industry Connect* organized by FICCI as a part of FICCI Higher Education Summit 2010 held at

Federation House, New Delhi during 11-12 November, 2010.

Prof. R N Saha delivered a talk on *Rational Design of Novel Drug Pharmaceutical Delivery Systems* at Institute of Sciences, Panjab University, Chandigarh during UGC Sponsored Autumn School, 2010 on “Newer Paradigms in Pharmaceutics & Biopharmaceutics” during 25-30 October, 2010. He also acted as a panelist in the panel discussion on *Future Direction of Pharmacy Education*. He also delivered a talk on *Pharmacokinetic, Biodistribution and Bioavailability Studies: Important Tools in Design of NDDS* in a Seminar on Drug and Drug Delivery Research: A recent Advancement organized by Jadavpur University on 3 December 2010.

Prof. Ashis Das delivered a talk on *Partial Analysis of the Plasmodium falciparum from adult patients suffering from severe malaria manifestations* at EMBO global lecture course on Molecular and Evolutionary Genetics of Malaria at National Institute of Malaria Research, Dwarka, New Delhi, from 21 November to 4 December. He also delivered an invited talk on *Partial analysis of P.vivax transcriptome from adult patients suffering from severe malaria manifestation* at International Scientific Meeting “Recent Development in Malaria Research” at International Centre for Genetic Engineering & Biotechnology New Delhi, during 1-3 December 2010.

Prof. B V Babu was invited as the Chief Guest and delivered the Inaugural Address at the Inaugural function of Staff Development Programme on *Innovative Teaching Techniques for Transport Phenomena* organized by ITM Universe, Gwalior, during 12-17 July 2010. He also delivered two talks on *Introduction to Transport Phenomena* and *Energy Integration Analysis* at this programme.

Prof. Sangeeta Sharma conducted a one-day workshop on *Effective Communication and Presentation Skills* in J.K. Padampat Singhania Institute of Management and Technology, Gurgaon on 13 August 2010. She conducted a half-day workshop on *Teaching Methodology and Technical Aids for English Teachers* for Birla Public School, Pilani on 5 October 2010. She also conducted a workshop on *Placement and Presentation Skills* at R A Podar Institute on Management, Jaipur on 18 October 2010. Dr. Sangeeta Sharma delivered a keynote address at Engineering College Bikaner during the inauguration ceremony of Entrepreneurial Awareness camps, Bikaner on 6 September 2010. She was also invited as the Guest of Honour in International Seminar on Women in Leadership

roles at Desh Bhagat Institute of Management & Computer Sciences, Mandi Gobindgarh, Punjab on 6 October 2010.

Prof. Arya Kumar delivered three invited talks on *Entrepreneurship* to the participants of the Executive Post Graduate Programme organized by Indian Institute of Foreign Trade, New Delhi, during August and October 2010. He was the Chief Guest and delivered a keynote address in the seminar on *Why Entrepreneurship and How to Become an Entrepreneur?*

→ Prof. Arya Kumar



organized by Jaypee Institute of Information Technology, Noida on 30 October 2010. Prof Arya Kumar also participated in the workshop on *Accelerated Commercialisation of Technology Innovation* organized by Venture Centre, NCL, Innovation Park in association with Accelerator India, Cambridge University, British High Commission and NSTEDB during 27-28 September 2010 at Pune. Prof. Arya Kumar also participated in NEN Faculty Advisory Board Meeting 2010 held on 28-29 October 2010 in Bangalore and contributed to the strategic moves for promotion of entrepreneurship development programmes for students and faculty members on campus.

Prof. Anshuman Dalvi delivered a talk on *Introduction to Ceramic Structures* at SMS College Jhunjhunu, Rajasthan on 23 September 2010.

Prof. Subit K Saha delivered an invited talk entitled *Characterization of pre-micellar, micellar and post-micellar aggregates of gemini surfactants with hydroxyl substituted spacers in aqueous solution: A fluorescence and conductometric study* in the National Seminar on

Membranes, Microemulsions and Self-Assembled Systems (MMSAS-2010) organized by the Department of Chemistry, Sikkim Manipal Institute of Technology, Majitar, Rangpo, Sikkim in collaboration with The North East Chapter, Indian Society for Surface Science & Technology held in the Department of Chemistry, Sikkim Manipal Institute of Technology, Majitar, Rangpo, Sikkim during 28-30 September, 2010. He also chaired technical session X in the National Seminar.

Shibasish Chowdhury delivered a talk on *Understanding protein folding mechanism through Molecular Dynamics Simulation* at National Workshop on "Protein Folding" organized by Department of Biochemistry & Biophysics University of Kalyani, Kalyani – West Bengal during 23 – 25 November 2010.

Dr. Hitesh Datt Mathur delivered a keynote address on 26 August 2010 at the Inauguration of PEAK'2010 (EEE Dept. Association) in Karunya University, Coimbatore.

Dr. Navin Singh delivered an invited lecture on *A simple model for unzipping of dsDNA* in a workshop on "Physics of DNA" organized by the Department of Physics, Banaras Hindu University during 11-13 August 2010.

Dr. Raaj Ramsankaran delivered a keynote address at a National Seminar on *Global Warming & its Impact on Water Resources* organized by Graphic Era University, Dehradun, Uttarakhand, India during 3-4 December 2010

Dr. Monica Sharma delivered a keynote address at Entrepreneurship Awareness Camp, Sponsored by EDI, Ahmedabad, Govt. of India and organized

→ Dr. Monica Sharma



by the Centre for Innovation & Entrepreneurship Development, Engineering College Bikaner from 6 to 8 September 2010.

significant projects

Principal investigator and name of the group	Title of the project	Funding Agency	Amount and Duration
Prof. R N Saha Department of Pharmacy	Design of Novel Nasal Delivery System for Selected CNS Active Drug	Torrent Pharmaceuticals Ltd., Ahemedabad	20 lakhs Duration-3 years
Prof. R Mahesh Department of Pharmacy	Synthesis and pharmacological evaluation of novel phosphodiesterase 4 inhibitors for their anti-depressant and anxiolytic potential	DBT	51.69 lakhs
	Synthesis and Neuro-pharmacological Evaluation of Novel and Selective Ligands for the Development of Improved and Fast acting Anti-depressants for the Treatment Resistant Depression	DST	18 lakhs
	Design and synthesis of novel anti malarial agents	Indo-Canadian Joint Research Consortium	36.6 lakhs
Prof. B V Babu Department of Chemical Engineering	Education through ICT: Developing suitable pedagogical methods for various classes (Process Design Decisions), intellectual calibers and research in e-learning	MHRD	10 lakhs
Dr. Balram Dubey Department of Mathematics	At the level of DRS-I under the Special Assistance Programme (SAP)	UGC, New Delhi	71.5 lakhs Duration-5 years

distinguished lectures at BITS, Pilani

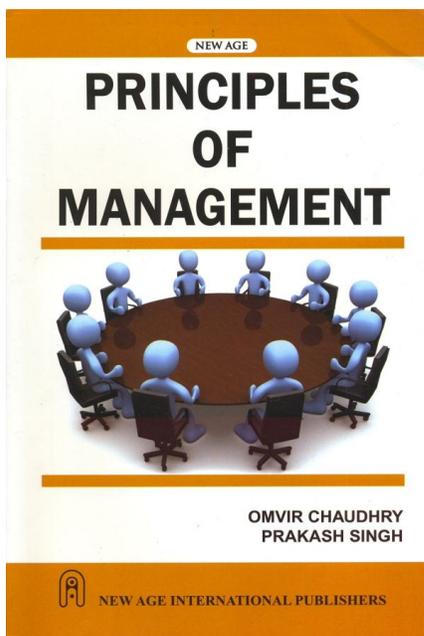
Speaker	Designation	Topic	Date
Dr Roger P. West	Professor	Concrete Technology (series of lectures)	September-October 2010
Varun Agarwal	Secretary, Bhaktivedanta Institute, Kolkata	Search for God in the Age of Science and Technology	16 November 2010
Rahul Shanklya	Film Director	Theatre & Cinema at Crossroads , Creativity and Film Making	18 October 2010
Vijay Kedia	BITS Alumnus	Rain Water Harvesting	16 October 2010
Mugdha Sinha	District Collector, Jhunjhunu.	Role of Civil Servants in Governance: Opportunities and Challenges.	8 October 2010
Dr Mohan Dewan	Promoter, RK Dewan & Co.	Issues in Patenting	9 September 2010
Prof Krishnan Balasubramanian	BITS Alumnus	Conceptual and Computational Foundations of Arts and Sciences	23 August 2010
Prof Carolyn Heising	Professor	Vision with Action: Solving Global Problems with Science and Engineering	7 August 2010
Bharti Mohan Borah	Psychologist	Pressure and Self Esteem Issues	12 August 2010

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

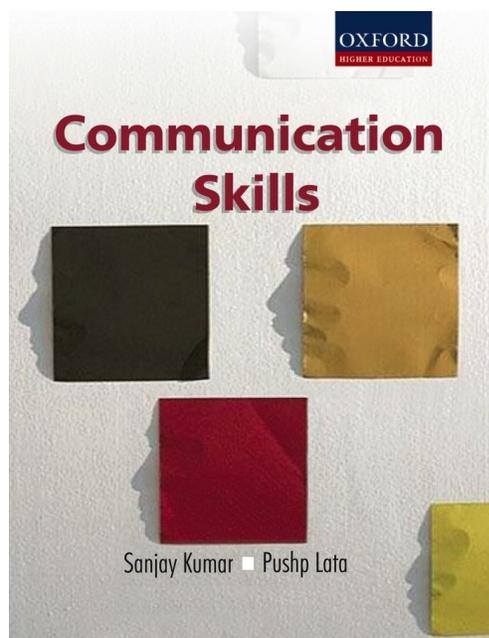
Name	Department	Journal/member
Prof. Arya Kumar	Economics	Reviewed 8 research papers for the Business Perspective Journal brought out by BIMTEC, Greater Noida. He also reviewed a book titled Financial Management by Rajiv Srivastava and Anil Misra <i>published</i> by Oxford University Press, 2010.
Prof. B V Babu	Chemical Engineering	Reviewed 12 articles published in 12 International Journals namely Chemical Engineering Science, European Journal of Operations Research, International Journal of Chemical Reactor Engineering, Engineering Optimization, International Journal of Hydrogen Energy, Materials and Manufacturing Processes, Engineering Applications of Artificial Intelligence, Desalination and Water Treatment, and Journal of Hazardous Materials.
Dr. S Kannan	Management	Reviewed papers from International Journal of Quality and Reliability Management (IJQM), UK; appointed a reviewer of Technical Program Committee for 2011 IEEE Symposium on Computer and Informatics.
Prof. Sangeeta Sharma	Languages	Reviewed AIMS International Journal of Management, Volume 4 Number 3, September 2010. She was also appointed a reviewer for 12 th International Conference of Society for Global Business and Economic Development to be held during 21-23 July, 2011 in Singapore.
Dr. Hitesh Mathur	EEE	Invited as a resource person for three-day workshop on Power Electronics in Green Engineering during 25 – 27 August 2010 at Karunya University, Coimbatore.
Prof. Anshuman Dalvi	Physics	Reviewed one paper for the international journal, Solid State Ionics (Elsevier)
Dr. Ashish Gujarati	Chemical Engineering	Reviewed research papers for Materials and Manufacturing Processes for Journal of Developmental Biology and Tissue Engineering <i>and papers for</i> Eighth International Conference on Simulated Evolution and Learning (SEAL-2010) during 1- 4 December 2010, Indian Institute of Technology Kanpur, India; The Second International Conference on Engineering and Meta-Engineering: ICEME 2011 collocated with theSeventeenth International Conference on Information Systems Analysis and Synthesis: ISAS 2011 and The Ninth International Conference on Computing, Communications and Control Technologies: CCCT 2011 March 27- 30, 2011 – Orlando, Florida, USA.
Dr Sushil Kumar	Chemical Engineering	Reviewed a book <i>on</i> Process Instrumentation and Control, <i>published by</i> Tata McGraw – Hill Higher Education 2010.

Name	Department	Journal/member
Dr Pratik N Sheth	Chemical Engineering	Reviewed paper for International Journal of Chemical Reactor Engineering, published by Berkely Electronic Press.
Prof. S B Singh	Civil Engineering	Appointed as the <i>member of the</i> Editorial Board, STM Journal (Recent Trends in Civil Engineering).
Dr. Pushp Lata	Languages	Appointed a peer-reviewer and reviewed a research paper on ELT Materials Writing Projects: Challenges of Professional Communication for an International Journal, Arab World English Journal

in print



Principles of Management, Omvir Chaudhry, Prakash Singh, New Age International Publishers.



Communication Skills, Sanjay Kumar, Pushp Lata, Oxford Higher Education.

joining hands

MoUs

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

With Powerwave Technologies R & D Pvt Ltd. to promote academic, educational and research interaction and cooperation on 27 April 2010.

With Carleton University (Ottawa) to facilitate exchange of faculty and students, to promote education and research interaction on 14 July 2010.

With Eaton Technologies Pvt. Ltd, Pune to foster collaboration between the two institutes to promote academic and research interactions on 14 July 2010.

With University of Savoie, Chambéry-Anney to foster collaborative research, to organize joint academic and research activities and to facilitate student exchange on 28 June, 2010.

accolades & achievements

award for academic excellence

Prof. R. Mahesh received the **Best poster award** at Indian Pharmacology Society Conference – National Institute of Nutrition(ICMR), Hyderabad, November 2010.

Prof. Navneet Goyal, Dr. Poonam Goyal, and Dr. Anil Rai have been awarded the IBM Scalable Data Analytics for a **Smarter Planet Innovation Award 2010** carrying \$15000 cash prize for their project proposal titled *Developing a Smart Crop Management System Using Data Analytics*. The winners will also get a chance to present their work in an IBM hosted workshop in November 2011. The award was given by IASRI, New Delhi.

Prof. Anshuman Dalvi won the **Best Poster award** in 55th DAE Solid State Physics

Symposium 2010 held at Manipal University, Manipal during 26-30 December 2010.

student round-up

Four first year students of BITS Pilani, namely, **Miss Ankita Sarda** and **Mr Shuja Shabir** (BE - Computer Science) and **Mr Vaibhav Grewal** and **Mr Prakash Singh** (BE- Electrical and Electronics Engineering) have been selected for the prestigious **Aditya Birla Group Scholarships** of 2010. These four BITSians are among the twenty three bright students chosen for this year's award. *Aditya Birla Scholarships* which are offered to meritorious students of IITs, IIMs and BITS Pilani every year.

Humanoid **AcYut 4** designed by BITS Pilani students performed a feat of lifting a weight of 40CDs together, which is the first time in the world, thus creating a world record.

→ AcYut 4 Team



AcYut achieved this feat to the delight of a large number of students and scientists at the **15th FIRA Robot World Cup and Congress** held at Amrita Vishwa Vidyapeetham, Bangalore, during 15-19 September 2010. AcYut was given the special award by the **FIRA World Cup** for setting the world record in weight lifting in the large sized category. The event was organized by Federation of International Robot Soccer Association (FIRA).

Sonal Keshawrao Thengane, 2009H101016P, was awarded with Best Paper presentation in

session on Science and Technology ; and nominated for **Young Scientist Award** for her paper entitled *Exploration of the potential of Nanotechnology to tackle climate change* at the International Conference on Climate Change, Gwalior during 5- 7 December 2010.

Kota Achyuth Reddy, 2006B2A4522P, was felicitated by Madhya Pradesh Chief Minister, Mr. Shivraj Singh Chouhan for his idea on

→ Mr. Kota Achyuth Reddy



Imparting awareness of employment news, career opportunities & academic opportunities among students submitted as a response to Ideas for CM Contest in Bhopal on 7 December 2010.

Parikshit G Sangvikar, 2007B1A1784P, secured second place in 'Resource Optimization' contest and third place in 'Simulation Challenge' at CHEMxSERE 2010, a techfest hosted by Indian Institute of Chemical Engineers, BITS Pilani chapter during 2-3 October, 2010.

Karthik Gowrishankar, 2009H149198P, was awarded the Karthikeyan Award (Best Outgoing Management Student Award).

Dinkar Nandwana, 2007A4PS721P, presented a paper on "IMECE2010-38089: Tube Failure Analysis and Residual Life Assessment in Water Tube Boiler which was published in the conference proceedings of ASME 2010 International Mechanical Engineering Congress and Exposition, held in Vancouver, Canada from 12-18 November 2010.

Keshav Lakshman, 2008B4A3545P and Abhijit Sinha, 2008B4A3470P, were adjudged the

Runners up at an **International Business Plan Competition** in CONQUEST-2010, BITS-Pilani, during 21 -22 August 2010.

renewing the bond

→ Alumni 1981 Batch honoring Prof. B.N. Jain



A new division, BITS Alumni Affairs (BITSAA) Division, has been created under Prof. K E Raman, Acting Director, Goa Campus as the first Chairman of the Division to give distinct thrust to the activities related to Alumni and to connect and engage students, alumni, friends and well-wishers for a longtime relationship with BITS Pilani. It will also focus on the development of alumni support to the continuing development of the Institute's academic, research, and off-campus programs, expansion and renewal of its facilities, and providing scholarships and financial aid to students through annual fundraising campaigns.

Some of the prominent activities organized during this semester by BITS Alumni Cell Pilani are as under:

Graduation Ceremony for the 2007 -11 batch was organized on 24 November 2010. Prof B N Jain, Vice Chancellor congratulating the students on their success, emphasized on leading a value based life to grow professionally. Prof. G Raghurama, Director; Prof. G Sundar, Deputy Director; Prof. Sanjiv Kumar Choudhury, Chief Warden; Prof. Surekha Bhanot, Warden Meera Bhavan and Prof. Arya Kumar, Faculty In-charge

of the Alumni Affairs Cell inspired and wished the very best to the passing out students.

-> Alumni 1955-60 Batch meeting at VFAST



Alumni of 1955-60 batch along with their families visited the campus during 10 -12 November 2010 and celebrated the Golden Jubilee. They shared their experiences with students and had also interacted with officials of the institute.

During 19-21 November 2010, 81 alumni members of the 1981 batch also visited the Institute with their families to celebrate the Silver Jubilee of their graduation. They had a meeting with the Vice Chancellor and the senior faculty wherein Prof Jain, Vice Chancellor shared his thoughts on the vision and future direction for the growth of the institute and role that is envisaged from alumni. An interactive session on *Careers in Corporate, Academics and Entrepreneurship*, was also held on this occasion.

project embryo

-> Project Embryo Team



BITS Embryo, with its unique and innovative mode of complimenting on campus education, exposure and research, through online lectures by Alumni and friends of BITS, has been able to sustain the interest of its users over the years. The following lectures were delivered this semester:

Speaker	Affiliation	Title	Date
Madhur Khandelwal	Senior Software Engineer The Find Inc.	Hadoop Map Reduce Technology	17 September 2010
Shilpa Sambashivan	BITS 30 under 30 awardee, PhD UCLA	Molecular Basis of Amyloid Diseases	18 September 2010

Speaker	Affiliation	Title	Date
Marc Koska	Inventor of disposable Syringes	Changing the Point: Journey to Invent Disposable Syringes	24 September 2010
Luca Turin	Biophysicist, currently developing artificial nose	Is smell a Quantum Phenomenon?	26 September 2010
Soumyadeep Ghosh	PhD student, Princeton University	MS/PhD - A Primer on Applying for Graduate Studies	3 October 2010
Dr. Subhash Gupta	Ph.D., Physics, Columbia University MS, Physics, Columbia University, M.A. M.Phil	Optimal Decision Making in Real Time	9 November 2010
Mreenal Chakraborty	Chartered Member of CIPD.UK	Communication Skills and Mindset Development	10 November 2010
Priya Jadhav	BE, EEE and MSc. Physics, BITS Pilani MS in Electrical Engg., Boston University	Singlet Exciton Fission in Organic Semiconductor Photovoltaics	15 November 2010
Vijay Kedia	Mechanical Engineer, inventor of KFP	Rainwater Harvesting Technology:Kedia Farm Pattern	16 November 2010

caring beyond our walls

CONQUEST 2010 – Business Plan Competition

Conquest, an International Business Plan Competition and the flagship event of the Center for Entrepreneurial Leadership (CEL), of BITS Pilani was held on 21-22 August at the Pilani Campus of the institute. In the last seven years, Conquest has grown from an intra-BITS Business Plan Competition to an event of International acclaim drawing more than 200 entries from about 10 countries. After the first two rounds, the top four teams were provided mentoring and

→ Conquest 2010



presented their plans at the Grand Finale on 22 August 2010. This year BITS played host not only to *Conquest 2010* but also to the Global Conference of E-Cells that saw participants from over 20 colleges representing their respective Entrepreneurship-Cells and looked for ways and

means to promote entrepreneurship and other similar issues.

This entrepreneurship conclave at BITS, Pilani witnessed some of the most distinguished speakers in the industry who shared their thoughts and experiences on entrepreneurship. These included JP Narayan, Founder, LokSatta Party; Gautam Gandhi, Head Google New Ventures; Dhiraj C Rajaram, Founder Mu Sigma, etc.

The Business Plan competition was won by Amrita Healthcare. Their idea was to provide health care solutions to people in rural areas through an innovative mechanism wherein the data is fed in and the output (i.e., the name of the medicine and the disease) can be recognized. The runners up were Haplaw from BITS, Pilani.

At the valedictory function, Prof. G Raghurama, Director, BITS, Pilani campus distributed prizes to the winning teams and Prof. Arya Kumar, highlighted that *Conquest* is unique because of its consistent success rate of around 70% winners having already launched their ventures.

Sarad Book Festival (5-16 October 2010)

Prof. R N Saha, Deputy Director inaugurated the Sarad Book Festival at Akshay Supermarket on 5 October 2010. The Festival which was held during 5-16 October 2010, had over 4000 books for

→ Sarad book festival



display and sale. They covered a wide range of subjects including Academic, Fiction, Biography, History, Management, Sciences, Social Sciences, Children's Books and General Reference. There were many Hindi books too. Akshay provided special discount of 20% during the Book Festival. It attracted a huge number of readers from campus and outside.

BOSM (15-19 September 2010)

→ Winners of BOSM



As Delhi braced up for the first ever Common Wealth Games on Indian soil, the sleepy sandy town of Pilani geared up for the 25th Silver Jubilee Edition of the BITS Open Sports Meet, more popularly known as BOSM. This year it was held during 15-19 September 2010.

Graced by the Arjuna Award winner athlete Mr. Gopal Saini, the inaugural ceremony of BOSM was organized on 15 September 2010 in the Gym Grounds of the campus. Mr. Saini talked about the importance of sports in overall growth of a person. The Special Guest of Honour, Director Prof. G. Raghurama expressed his joy at the festival going

→ Swimming at BITS



international this year, and hoped it to be a great success with the true spirit of sportsmanship being reflected. The sports secretary Vishal Agrawal made the participants pledge to fair play and joint

secretary Anubha Jain proposed the vote of thanks in the end.

BOSM went global this time with inclusion of an international team from Sri Lanka. With a sponsorship of around 15 lakhs (Nokia being the platinum sponsor and LANCO and PlanetM being the gold ones), BOSM'10 was a mega event. The total prize money was an astounding 2 lakhs. The number of participants hit a magical figure of 1400 with more than a third being girls. A wide array of events were organized this BOSM- indoor, outdoor as well as a few fun games. Athletics, Basketball, Football, Cricket, Hockey, Volleyball and Tennis matches were held at Gym Grounds while Squash, Badminton, Table Tennis, Powerlifting and Body-building were held at Students Activity Centre (SAC). Swimming events were held at the BITS Swimming Club. For the intellectually bent, there were Chess and Carrom. As always, football, cricket and basketball proved to be the most popular ones. Informal and Jhankaar provided the needed respite from professionalism and competition with their hodge-podge of fun games like human foosball, tug of war, anti-chess, dodge-ball etc.

Prof. G. Sundar, Dr. S K Choudhary, Dr. Rajeev Gupta and Dr. Pintu Modak graced the valedictory ceremony. On this occasion, Mr. Bhavesh was the

→ Basketball match at BOSM



Chief Guest. Special Guest Dr. Rajeev Gupta honoured the team from **Morutowa University, Sri Lanka**. BITS Pilani topped the medal tally with 25 gold, 24 silver and 25 bronze medals while MNIT, Jaipur stood second with 29 medals in all. MNIT, Jaipur was adjudged the 'best team' of BOSM'10.

OASIS 2010 (22-25 October 2010)

The opening ceremony was held on the evening of 22 October. A Department of CCTV video depicting the theme of this year's Oasis – Insomnia kicked off the high octane affair. The STUCCA Body was introduced as they welcomed the Chief Guest for the evening, Rakesh Verma,

→ Opening Ceremony of OASIS



the Managing Director and Founder of MapmyIndia. He inaugurated the ceremony with Prof. G Raghurama, the Director of BITS Pilani campus. In a nostalgic speech, Mr Verma remembered his days on the campus and congratulated the organizing team and all departments for the elaborate preparations for the fest. It was followed by the inauguration of ART n DEE structure in D Lawns, *The Dream Reaper*. Soon it was time for the Dance Club and Mime Club to take over the stage with their exuberant and excellently choreographed dances and performances. But the evening was defined by the *Beat Box* themed mimicry performance by a two-man team from Mime Club – Ajitesh and Shubrojyoti.

The second day of the fest saw the onslaught of some of the most popular events like Choreo, Stage plays and the much talked about Oasis Quiz. The Dance Workshop with famous Bollywood choreographers Caesar and Bosco drew in huge crowds. Rural products manufactured by promising NGOs, and an Expo of Indian artstries like handicrafts, and decorative items made by rural women near Pilani were presented for sale and exhibition by NIRMAAN and NSS. *Hasya Kavi Sammelan*, organized by HAS with Ehsaan Qureshi and Dr Kumar

Vishwaas was a grand success as they threw the audiences into peals of laughter.

→ OASIS 2010



On the third day, events like *Tarang* and *Fusion* treated the audience to a fresh and unique experience with a blend of classical and contemporary music. Metamorphosis, the short film making competition organized by the Dept. of CCTV proved a success as promising talent from across India showcased their talent with the camera. Quasar Padamsee, son of Ad guru Alyque Padamsee conducted a two-day theatre workshop where participants were introduced to the medium and the know how's of the elements. A professional show by the musical duo of Vishal and Shekhar was also organized.

The penultimate day took the euphoria to its highest levels. Oasis debate, Big Fight, and several other film quizzes and photography competitions made their mark early. The best was reserved for the night. Prof show by Bhayanak Maut, an Indian Death metal band commanded the crowd with their electric music and feverish baritones. The show by Motherjane turned out to be a rare experience due to the unique sound of the band. The atmosphere reached a crescendo when they played *Vande Mataram* on the electric guitar. The highly reputed platform of Rocktaves made the night even more memorable.

The last major event was FashP which gave a befitting finale to a spectacular Oasis. The show met the huge expectations as beautiful faces and unique costumes and dresses ruled the stage with the audience cheering all the way.

→ FashP



88 Colleges, 1400 participants had competed in 67 events throughout the 96 hours of adrenaline pumping, sleepless days and nights of OASIS 2010 for a total prize chest of more than 25 lakhs. The ceremony kicked off with a video recapturing the glorious, funny and exhilarating moments of the days gone by, prepared by the Dept. of CCTV.

The festival ended with the prize distribution ceremony. The President of BITS Student's Union Govindam Yadav accompanied the Vice Chancellor Prof. B N Jain to the stage to give away the awards. Prof. G Raghurama, Director BITS Pilani campus and Prof. R N Saha, Deputy Directors (Administration), and Prof. GSundar, Deputy Director (Off-Campus Programmes) also graced the occasion. Sri Venkateshwara College from Delhi was adjudged the winner of the Oasis Championship.

Ragamalika

Ragamalika, the classical music and dance club of BITS-Pilani organized three main events namely the Freshers' concert, Nritya Ranjani and Classical Rendezvous during the first semester 2010-11.

The auditions for recruitment of new members for this semester took place on 10 August 2010. It

included four vocalists, a mridangam player, two flautists, a sitar player, a Tabla player, a Ghatam player, a Bharatanatyam dancer and an Odissi

→ Ragamalika performance



dancer. With a bunch of talented freshers', the semester kicked off to a wonderful start with the first event i.e. the Freshers' concert.

On the first day, there was a Bharatanatyam performance followed by two Carnatic performances. The Bharatanatyam performance was given by Sushmitha. The first one of the Carnatic performances was given by vocalist Hari Hara Sudhan, accompanied by Ajay Aditya on the violin and Prasanna Venkatesh on ghatam. The second one was rendered by vocalist Neeraja Sridhar accompanied by Ashwin Subramanian on the flute, Hari Hara Sudhan on mridangam and Prasanna on ghatam.

The second day of the concert consisted of an Odissi performance followed by four Hindustani performances which included two vocal performances, a flute and a sitar recital. The concerts were attended by Prof. BV Babu, the then Dean of SWD and Prof-in-Charge, Dr. Sushila Rathore.

The major event of the semester was Nritya Ranjani which was held on 4 October 2011 in the auditorium. With four different dance styles in the club, namely Bharatanatyam, Kuchipudi, Kathak and Odissi, participants got the chance to depict each of the four styles individually, followed by the navarasas. It included Shiv Tandav on the song 'bho shambho' followed by a Kuchipudi

performance by Manjeera on the kriti *maragadha manimaya* and then an Odissi performance by Kuheli Jati on a mangalacharan. These were followed by two more Bharatanatyam performances and a Kathak performance. The second part of the concert was the Navarasas, the depiction of nine emotions, through contemporary choreography.

The next event was the instrumental concert which was named, *A Classical Rendezvous*. For the first time, quite a strong wing of both Carnatic and Hindustani musicians in the club was seen and it paved the way for jugalbandi between the two styles. Another highlight of the semester was a Carnatic concert followed by a Hindustani concert which was then followed by a jugalbandi on 24 November 2011.

The last event of the semester was the *Psenti concert* which was held on the 26 November 2011. Psenti-semita and violinist Shraavan played a few classical compositions accompanied by fellow musicians from the club.

SPICMACAY

SPICMACAY BITS- Pilani chapter presented its first concert of the semester on 23 August 2011. The institute had the honor of hosting a Norwegian group Strings Unlimited. The artists Kristin Karlsson, Kristin Skjolaas, Einy Langmoen and Christine Bigjerde left the audience spellbound by their splendid performance.

The first piece presented was Pachelbel's Kanon which is the most famous piece of music by the German Baroque composer. This was followed by The Winter by Vivaldi. The works of Joseph-Maurice Ravel, a French composer of

→ Performance by Strings Unlimited



Impressionist music, was next in line. He played a quartet in F major. Divertimento by Mozart in D major and Dvorak by American Quartet were also played. The composition which left the audience spell bound was our very own Sare Jahan Se Accha composed in western notes by Nordensten. This was followed by A La Maniere De moi Meme and Praelude from Holberg's Zeit. The concert ended with Bela Bartok by Rumanische Volstanze.

Mrs. Rupan Sarkar, from the Banaras Gharana, entertained the audience with recitals of different ragas like Thumri, Kajri, etc. on 7 September 2010. On 8 September 2010 Pandit Tejendra Narayan Majumdar accompanied by Ustad Akram Khan on Tabla captivated one and all with variegated tunings and improvisations of the Sarod.

The last performance of the semester was a puppet show – 'Taming the Wild' by Doll's Theatre, a Puppet troupe. These young artistes presented the show which was rooted in the mutual awareness and relationship of Mankind and Nature.

MATRIX

The first semester of 2010-2011 was quite eventful for MATRIX with six book review events, four movie screenings, and various activities during OASIS. In September, MATRIX organized three internal book reviews: *Tuesdays With Morrie*

→ Prof. G. Sundar giving award at Matrix valedictory



by Bhavesh Sangem, Aman Gupta, and Ravi Ranjan, *Girl with the Dragon Tattoo* by Diwakar Pant, Samarth, and Isha Inani, and *1984* by

Samarth Agrawal, Aditya Bharadwaj, and Vibha Belawadi. The reviews gave a fair idea of the books and were well received by the audience. Apart from this, the forum had two internal movie screenings also in September, *Rainman*, and *The Man from Earth*, where the latter was reviewed by Bhavesh Sangem and Aman Gupta. The month of October was marked by the success of the grand quiz *Paradox*, conducted by Ravi Ranjan and Anand Padmanabhan. An external book review was also organized in October where some highly interesting books like, *Alice In Wonderland*, *Midnight's Children*, *The Catcher in the Rye*, *Animal Farm*, and *Cat's Cradle*, were reviewed by Dr. Arvind Sudarshan, Avinash Upadhyaya, Tejaswi Raghurama, Krishnaroop Chaudhuri, and Palaka Neeharika, respectively. This review turned out to be highly gratifying where the audience got a glimpse of such varieties of literary works. In addition, Matrix presented a three-day movie festival just before the OASIS where *Dr. Stranglove*, *M*, *The Manchurian Candidate*, *One Flew Over the Cuckoo's Nest*, and *The Diary of Anne Frank* were screened, which was a huge success. During OASIS, the traditional Matrix event *Triathlon* was conducted, which was an amalgamation of three separate events namely, *Innoquous*— an entertaining IQ test, *Amazing Race*— the treasure hunt, and *Comic Strip*. During OASIS, an external movie screening was also conducted, where Quentin Tarantino's *Pulp Fiction* was screened, and a movie quiz was conducted. In November, two external book reviews were conducted, one on *Reading Lolita in Tehran* by Dr. Geetha B, Dr. Kaushar Vaidya, Nilanjana Bhattacharya and Vineet Pandey, who not only presented a delightful review but also ignited curiosity among audience to read the book. Another one was on *A Thousand Splendid Suns* by Hema Manjunath, Ravi Ranjan, and Rituraj Roy, which turned out to be truly entertaining. The events were concluded at the Matrix valedictory function on 23 November 2010, where the Chief Guest, Prof. G Sundar, lauded various activities of the club.

Centre for Women Studies

In the last semester, the UGC Center for Women Studies organized a Workshop on 'Proper Sitting Posture' at BITS, Pilani with an objective to promote awareness regarding necessity of proper sitting posture in day to day life. . The resource persons for the workshop were Prof. R.P Pareek, the Medical Superintendent, Medical Center, BITS Pilani and Mrs. Jaya Pathak, Principal, Mandeliya School, Pilani. Prof. Sangeeta Sharma,

Coordinator, UGC Centre for Women Studies coordinated the event along with the team members.

The Centre also organized a workshop on Computer Awareness at BITS, Pilani to promote awareness regarding the use of

→ Dr. R.P. Pareek at the CWS Workshop



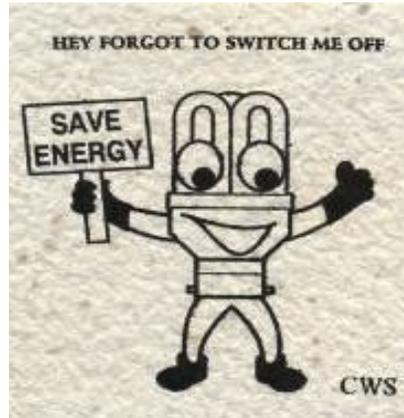
computers to take advantage of all information available on net and to build confidence and mitigate inhibition of handling Computer. Around 25 women from BITS and outside campus participated in this Workshop. The resource person for the workshop was Dr. Virender Singh Nirban. Prof. S Gurunarayan, Dean FD-I and Admissions was the Chief Guest at the event wherein he explained how computer facilitates working of women and makes them more empowered.

→ Dr. V.S. Nirban at the CWS Workshop



Apart from that, CWS also started a drive for saving energy by slipping in cards in chambers of

the faculty who left lights or fans on. This move alerted the staff members and made them realize the importance of saving energy.



In addition, the Centre organized a programme of Certificate distribution for 8th and 9th batch students who completed training program on computer literacy and cataloguing of books and journals.

→ Dr. Geetha B. at the CWS Workshop



Dr. Geetha B, Assistant Professor, Department of Languages was the Chief Guest of this event. Quite a good number of women were benefited by these training programs.

NSS

NSS in association with Renewable Energy Club, BITS-Pilani organized screening of a short film named "HIROSHIMA" to commemorate the 65th anniversary of Hiroshima and Nagasaki bombing of World War II. Moreover, NSS BITS Pilani in collaboration with ESD organized a Green Week during 21-28 August 2010. During this drive, about 1100 saplings like boganwaliya, neem and mehandi were planted all over the campus.

The Green Week which started on the 21 August was inaugurated by Prof. G. Raghurama, Director, BITS Pilani, along with the then Dean of Student Welfare Division, Prof. BV Babu, Chief Warden Dr. SK Verma, NSS coordinator Prof. Vimal

Bhanot and NSS programme officers. Special advisor to the Chancellor, Mr. K. Ramachandran, Mr R. Maheshwari, Dean Engineering Service Division, Prof. Rajiv Gupta graced the occasion on the 22 August. Prof. RN Saha, Deputy Director (Administration), BITS, Pilani started the plantation on the 23 August in the South Park.

→ Dr. Vimal Bhanot with guests during plantation drive



An awareness program during 1-7 September 2010 was conducted for the school students at NSS School. Lectures and demonstrations regarding the basic hygiene and eating habits were given by the students of M.P.H. (BITS, Pilani). On 2 October 2010 children from evening school of NSS BITS, Pilani were encouraged to participate in skit, drawing, poem recitation, craft making, dance and group singing events. Prof. Rajiv Gupta, Dean, Engineering Services Division was the Chief Guest and he distributed prizes to the winning participants.

In addition, National Service Scheme (NSS) organised a Health Camp on 10 October 2010 in a secondary school of the village Ghumansar (approximately 8 kms from Pilani). The camp was inaugurated by Prof. B N Jain, Vice Chancellor, BITS, Pilani, Prof. R N Saha, Deputy Director (Administration), Prof. Vimal Bhanot, NSS coordinator, Mr Ghasi Ramji, Ex-Sarpanch of village, Mr Juglal Singh, Principal of School, Dr. Uma Dubey, M.Ph. Group Leader, other NSS program officers and NSS team members were also present. The medical team comprised of

Physician, Dr R P Pareek, gynaecologist, Dr Sanjana Bhatt from Medical Center, BITS Pilani and an eye specialist Dr. GB Mathur from Mahadeo Singhi Eye Hospital. In this camp arrangements were made for registration, measurement of height, weight and distribution of free medicines. Apart from that special arrangements were made for Blood Sugar Test and Lung Tests. Apart from that MPH students conducted survey regarding the health of the villagers with the aim of helping them in future.

→ Prof. B.N. Jain at NSS Health Camp



Continuing the tradition of our cultural festival, NSS BITS, Pilani this year also organized a stall in OASIS, 2010. The stall was setup in C-lawns from 22-26 October and was handled by more than 30 volunteers. It was inaugurated by Prof. R N Saha, Deputy Director (Administration), BITS, Pilani. The theme of this year stall was-“Alone we can do so little, together we can do so much”. Various NGOs like Umang Jaipur, Ladli Jaipur, Hunur Jaipur, WWF, Delhi, Kriti, Delhi, Parichay, Delhi, Muskaan, Delhi, Goonj, Delhi, Amla Birla Kendra, Pilani participated in the stall. Umang - the scholarship programme of NSS continued to sponsor needy students in and around the campus of BITS. In addition to the already existing students, 11 more students were identified from 2 different schools taking the total tally to 26.

Nirmaan

Nirmaan Organization, since its inception in 2005, has been actively pursuing its projects in the fields of education and employment. This semester too

witnessed an array of activities conducted with the aim of uplifting the underprivileged. Aavishkaran, a two-day Inter-School Competition of Debates, Quizzes and Elocutions was held for a group of schools in Pilani. It celebrated the *Joy of Giving* through 'judicious use of all resources' and the 'joy of giving happiness through music'. The *Yodh* Inter-School Sports Competitions in association with BOSM and the Students' Union were held at the BITS Gym Grounds much to the joy and enthusiasm of all sports-loving school students. The two- day event was inaugurated by Prof. G Raghurama, Director, BITS, Pilani campus, Prof N V MuralidharaRao and Prof Sangeeta Sharma. Noticing the lack of clean and tidy carpets in the Government school in adjacent Baas village, NIRMAAN provided new carpets for the classrooms to make the environment more conducive for studying as a part of its School Adoption Program.

→ Children participating in Nirman event



introducing new faculty

Name	Designation	Discipline
Sarvesh Satija	Visiting Faculty	Management
Rajesh Matai	Lecturer	Management
Tufan Chandra Bera	Lecturer	Mechanical Engineering
S Kannan	Associate Professor	Management

editorial team



Editor: Dr. Pushp Lata

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

Student Member: Mr. Rishabh Gupta, ID No. 2009C6PS350

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