Semester-II notes 2011-12

# bitscan

K K Birla Goa Campus



#### from the

## editor

With the sanctioning of 10 projects worth over Rs. 6 crore funded by various Government & Private organizations and the visits by eminent personalities such as Lord Megnadh Desai, Prof. Anil Gupta and Ms. Kiran Bedi for various events on campus, the II Semester 2011-12 turned out to be a semester of achievements for the K K Birla Goa Campus of BITS Pilani. Admission of 13 students into the top IIMs and selection of 6 students for the ISB Young Leaders Programme added few more feathers to this feat.

Kiran Bedi at TEDX 2012



An amazing 17 students from our campus were selected for the Google Summer of Code with Mr. ChetanBansal selected for the consecutive third time. Besides Quark and Spree 2012, Virasat, a SPICMACAY cultural festival organized for the first time, added another beautiful hue to the festive color on campus. Proving yet again their meticulous skills in event management, our students organized the third TEDxBITSGoa that witnessed speakers who have excelled in their own professional spheres.

Lord Meghnad Desai



Prof. Anil Gupta at the Lecture



The techno-management festival Quark 2012 and the Annual Sports festival Spree 2012 attracted a large number of participants from all over India as it did in its previous editions. Faculty members occupied themselves with a number of co-curricular activities such as conferences, workshops, publications, invited talks, international visits, editorial assignments, etc. Continuing its societal initiatives, the campus hosted an NGO confluence and the We Care Film festival sensitizing students and faculty towards the disability issues and various other important social issues.

**Exhibhit at Quark** 



We at BITScan, endeavor to gather information from all of you to present the multifarious events organized at our campus in a particular semester and it's heartening to receive your complete cooperation in this endeavor. We are sure you would continue to extend your active support in future so that BITScan grows bigger and better.

## Lord Meghnad Desai's visit

**Director Greeting Lord Meghnad Desai** 



BITS Pilani, KK Birla Goa Campus was honored to have had an interactive session with the world renowned economist, author and British Labour Life Peer- Lord Meghnad Desai. After a brief presentation by the Director on the history and education system of BITS in the conference room, Lord Desai proceeded for the interactive session with students and faculty assembled at the BITS auditorium. Dr. Saby, John coordinator of the event gave an interesting introduction to the guest. Vice Chancellor Prof. BN Jain welcomed him and the gathering and presented a brief account of the achievements and future plans of BITS Pilani. With Prof. Mridula Goel hosting the interactive session, Lord Desai began by explaining how today's youth are fortunate to be living in times with great opportunities and a unique, bright future ahead "India has never been so united as today, never as rich, never so educated. Education is equipping today's youth to control their destiny", he said. In his opinion the youth will realise the hitherto unexploited potential of capitalism.

He further pointed out that in today's world, the quality of human life in terms of health and literacy is the gauge for measuring the progress of a developing country like India, rather than conventional benchmarks of industrial growth. "The value for human life is the mark of a civilised society which I believe India is yet to display "Prof. Desai exhorted.

Through his answers to the questions floated by students, Lord Desai expressed his views on a range of topics. He elucidated the inherent correlation of poverty with the caste system, the only way out being. eradication of the caste system. In his words, "Lower castes should get a foot in the doorway." Mobility, he believes is a possible solution to poverty. "A fulfilled literacy revolution along with improved health facilities would give the poor their passport to an improved life." he said. As for governance, Lord Desai favoured the coalition model over the two-party model. In his view. "India is yet to learn efficient means of running a coalition government". Commented on the Indian education system as "missing initiative, innovation and diversity", Lord Desai emphasized upon the importance of improving the same.

#### **Interacting with Students**



He concluded by expressing his disappointment at the lack of avenues for an aspiring ordinary person to join politics. "Passion for change, and not money should be the motive behind joining a party", he said. The session ended with the vote of thanks delivered by the Prof. Suresh Ramaswamy. In all, the session was successful, insightful, witty and enriching attended by a large number of students, faculty and local guests.

A Professor Emeritus at the London School of Economics, Lord Meghnad Desai is famous for his works like *Marx's Revenge: The Resurgence of Capitalism* and the *Death of Statist Socialism*, *The Rediscovery of India*, which reflect his ideas on areas as diverse as Marxian philosophy, econometrics, monetarism, etc.

# Prof. V. Lakshminarayanan Memorial Lecture

**Prof. Anil Gupta** 



In memory of Late Prof.V.Lakshminarayanan, the first Director of BITS Pilani a memorial lecture is being held for the last five years in one of the campuses. BITS Pilani, K K Birla Goa campus hosted the memorial Lecture 2012 delivered by Padma Shri Prof. Anil Gupta of the prestigious IIM-A and of the Honeybee- Network- fame who spoke on Engineering Change Triggering Social, Industrial and Nature Connect'. Dr. Anil Gupta has carved a niche for himself in the domain of rural innovation through the Honeybee Network, an organization which collects and disseminates traditional knowledge and helps facilitate and spread grassroots innovation throughout India and elsewhere. Dr. Gupta in his time at the National Innovation Foundation-India has also worked with SRISTI or Society for Research and Initiatives for Sustainable Technologies and Institutions which aims at empowering financially poor innovators. Some of the 'barefoot inventors' Prof Anil Gupta has supported through his organizations are the makers of the ingenious Bicycle Hoe and Pedal Operated Washing Machine.

Inaugurating the event, Prof. K. E Raman thanked Prof. V. Lakshminarayanan's family for their support in helping to organize this event for the first time at the K K Birla Goa Campus. He also expressed his admiration for Dr. Gupta and stated how much the present generation has to learn from a man of his repute. Prof. Balsubramanian, Director, L V Prasad Eye Institute, Hyderabad then introduced Dr. Gupta to the audience as an innovator, a title he went on to justify his talk.

Detailing about how great ideas often came from small places, Dr. Gupta talked of the efforts of the Honey Bee Network and its various collaborators in empowering independent innovators in sharing their ideas and designs with the general population. The result of this collaboration has been the creation of techpedia.in - an online portal based on bringing the ideas of grassroots innovators with young and open minds. In his talk Dr. Gupta enumerated the major obstacles in achieving the dream of an openly collaborative society of innovators. He shared his experiences with various people he had encountered who had modified their existing resources sometimes out of necessity and sometimes just through sheer impatience towards a problem.

Prof. K. E. Raman Offering Flowers to Portrait



# **TEDXBITS Goa Conference 2012**

With the theme of This is Mv Storv. TEDxBITSGoa presented an extraordinary range of awe inspiring stories from the most fascinating and extraordinary individuals who enthralled and encouraged the audience to participate, promote and propagate. Ms. Kiran Bedi, the First Woman IPS Officer in India, Dr. Benny Prasad, the World's most travelled Christian Musician, Ms. Belinda Wright, Founder and Executive Director of the Wildlife Protection Society of India (WPSI), Mr. Ashish Shakya, Blogger and Stand-up Comedian, Lt.General Vijay Oberoi, Former Vice-Chief of Indian Army, Mr. Roycin D'Souza, Creator of #TAD365 Project, Mr. Laxman Gole, Ex-convict and Social Worker, Mr. Atalf Qadri, War Journalist, Mr. Peter Van Geit, Expedition Expert, Dr. A.R.K. Pillai, Founder of Indian Development Foundation, Sidharth Agarwal, Pune Head of Tech India, Mr. Partho Bhowmick of Blind with Camera Project and Mr. Anirudh Sharma, Pioneer behind Le Chal shared their life experiences that spellbound the audience who had gathered in large number at the campus auditorium. For more details visit: www.tedxbitsgoa.com

Mr. Laxman Gole At TEDX 2012



# Visits by Educational Institutions

Students accompanied by their faculty members visited our campus in order to update themselves with the latest advancements in technology, knowledge opportunities for higher studies etc. The visit to various labs was expected to motivate them to take up higher studies in Science and Engineering. An orientation session on BITS educational process followed by visits to various labs was organized. Our student volunteers guided the school and college students to various labs:

- 1. Students of class XII from the Integra Eduventure Nagpur visited on 28 January 2012.
- 2. Students of B.Sc., Botany from Vivekananda college visited Applied and Environmental Biotechnology lab, Dept of Biological Sciences on 20Feb 2012.
- 3. Students of class XII from the Jawahar Navodaya Vidyalaya, Canacona, Goa visited on 25 April 2012.

#### Visit by students



### a confluence of ideas

## academia

seminars / conferences / workshops / training programmes workshop on

# Agora 2012 **Journeys.Inception**

As a part of Quark 2012, the Centre for Entrepreneurial Leadership presented Agora '12- a national conference on 21 January 2012 inviting young stalwarts from wide ranging fields to share their stories of determination and passion, of life changing journeys and their inception. While the Agora of Ancient Greece was a place of congregation, the heart of intellectual life and discourse-Agora '12 represented much more. It was a confluence of ideas, a tribute to young change makers all over India. Their journeys changed their lives forever. The speakers, who were from diverse backgrounds, shared their views/journeys with poise. Vrishank Chandavarkar ET Now's news & feature reporter presented his concrete views on social entrepreneurship. Swapnil Dixit, director of the renowned TATA Jagriti Yatra then addressed the students. Nikunj Jain, IIT Delhi alumnus and the founder of inoXapps projected entrepreneurship as the coolest thing to do in college. Agora also featured a stall, Umang, selling handmade crochet bags and ornamental candles; run entirely by the SHG women themselves. Through this Agora celebrated the journey of these women as they fulfill their dream of being an independent SHG

#### **Swapnil Dixit at Agora 2012**



# Youth Centered Conference: BITS G-CON

Aimed at working towards making renewable energy a more viable commodity for masses, BITS G-Con 2012 organized in association with TERI revolved around the central theme of "Alternate Energy sources and their influence on modern society." A part of one of India's biggest techno-managerial festivals Quark 2012, G-Con endeavored to approach the energy crisis in an entirely new way so as to gather the interest of some of the best budding talents in the country. The conference concentrated on producing a spectacle that is informative, inspiring and stimulating for Young India. Dr.Ritesh Arya, Member, at IndNor: India Norway joint venture for Geothermal study in Himalayas, Ms. Rishu Nigam, TERI Fellow and documentarian, Mr. Harit Soni, Founder of Ecolibrium Energy and Dr.Ravi Kuchimanchi, the founder of the Association for India's Development (AID) addressed some of these basic issues such as introduction of green initiatives on the part of profit-motivated enterprises; visualization of the future; people power in energy production; is our understanding of alternate sources of energy and the scope for innovation in the field.

## workshop on MOODLE

MOODLE (Modular Object Oriented Dynamic Learning Environment) is one of the most popular open source LMS (Learning Management System) used by many universities worldwide. It allows the instructor of each course to share course content (lecture slides, reading material) and create discussions through forums with the students. It also allows the instructor to create a variety of graded assessments for the students. With Dr. Raghunath Ratabole, Dr. Radhika Vathsan and Dr. Toby Josephas the resource persons, the workshop was done in three parts. Dr. Raghunath spoke on various aspects of PeopleSoft-Moodle integration that will ensure that all users of ERP will also be users on MOODLE. The integrated system shall allow instructorin-charge of each course to upload grades from MOODLE to ERP. Dr. Radhika Vathsan, who spoke on main elements of course management on MOODLE covered various topics starting from generating course lists, handling course settings, uploading handout and lecture slides, etc. Dr. Toby Joseph spoke on various assessment features which are offered by MOODLE.

### **One-day Seminar on Research Methods** and Data Analysis

Organized by the Department of Humanities and Management the one day seminar attracted about 70 participants comprising 20 faculty members and 55 research scholars of the campus. The main objective of this exposure-oriented seminar was to equip research scholars and faculty with knowledge and skills necessary for conducting research and analyzing data. Inaugurated by Prof. K. E Raman, the Director, the workshop had six interactive sessions. Dr. Ch. V V S N V Prasad, the coordinator of the seminar gave a brief overview of the research process, research methods and types of research. He also spoke on the statistical analysis of data wherein he elaborated on the points we need to consider in data analysis and tools used in data analysis. Prof. K.Srinivas gave an insight on the difference between Research in engineering and Research in Sciences whereby he spoke about the research pentagon in engineering and what entails good engineering research. He also gave an insight into the 10 commandments of ethics in research. In session three, Dr. Debasis Patnaik presented an overview of what is survey research, its merits and demerits, how to select a sample size and choice of media through which survey will be administered. Dr. M. Srikanth in his talk discussed the ten things to do before we start a project and also how to publish a paper in a journal. With Dr.Ponnani as the resource personnel, the last session of the seminar on expert guidelines was dealt with the role of information, knowledge, wisdom, awareness, experience and action in research. Prof. Meenakshi Raman, convener of the seminar thanked all the participants and resource personnel and expressed her department's desire to hold more and more sessions with the active collaboration with the other departments of the campus on research methods and data analysis.

Faculty at the Seminar



### **National Science Day Celebrations**

Science Day was celebrated with much gusto and fanfare on campus this year .The Day marks the anniversary of the discovery of the Raman Effect which fetched Sir C.V. Raman the Nobel Prize in Physics. Science day celebrations aim to spread awareness about the importance of Science among students and also among the society at large, so that indigenous efforts at advancing Science in India receive a boost. There were two main programs planned for this Day: the first one was a science guiz for school students of classes 8. 9 and 10 from various Schools in Goa and the second was a series of lectures to students and faculty members of the campus.

The Science day Celebration began with Prof. Meenakshi Raman presenting the BITS model of education to the enthusiastic participants from various schools of Goa. The school students and the accompanying teachers were led on a tour to the BITS Workshop, few labs of the departments of Chemistry and Biology.

17 schools in Goa sent 39 teams consisting of 3 students each to participate in the Quiz competition organized by the student volunteers from BITS. Quiz-Master Mr. Wilson Vaz (senior teacher at GVM College Ponda) conducted the preliminary round. The teams from St. Joseph Institute Vasco, A. J. de Almeida High School Ponda and The Rosary High School, Miramar, Panaji secured the First, Second and the Third prizes respectively. Vidya Vikas Academy Margao received the consolation prize. While cash awards, merit and participating certificates were given out for the winning teams, participation certificates were given to all participating teams. In addition, the top two teams were awarded Trophies.

The celebrations concluded with two expert lectures: one by Prof. A. K. Nandakumaran, Department of Mathematics IISc. Bangalore, on View of Newton as a Mathematician and the other by Prof. Radhika Vathsan of the Department of Physics at BITS, Goa Quantum Computation.

#### workshop on

## Cross-cultural Behavioral Simulation

Organized by the Department of Humanities and Management, the workshop aimed at enabling the participants to understand the impact of culture on their individual and collective behavior and the behavior of others through simulation BaFaBaFa. This simulation explore the idea of "culture" by creating feelings which are similar to those experienced in a foreign culture. The participants were divided into two distinct cultures. After establishment of the two cultures, participants from each culture in small groups visited the other culture. The experience left a very strong and lasting impression on the participants on the influence of norms, values, traditions, and language. Various management concepts such as high versus low context culture; monochromic versus polychromic time; individualism versus collectivism; masculinity versus femininity of a culture, ethnocentrism, and problems with perceptual errors and stereotyping, etc., were discussed. Attended by about 20 participants and convened by Prof. Meenakshi Raman, the workshop was conducted by Prof. Khushwant Pittenger, a Fulbright scholar from Ashland University, USA, and Dr. Shikha Sahai, a management faculty at BITS, Goa.

# workshop on **Electromagnetic Theory for College**

### **Teachers**

The Department of Physics along with Indian Association of Physics Teachers (IAPT) Goa Regional Council held a 2-day Workshop on Electromagnetic Theory for College Teachers during 10-11 march 2012 at the campus. About 20 teachers from various colleges across Goa and from the Goa university attended the workshop. Several faculty members and students also participated.

Electromagnetic theory is an integral part of the Physics Curriculum in the current undergraduate degree programmes in Physics. The workshop aimed to cover a major portion of this curriculum, which comprises of electrostatics, magnetic fields of steady currents, motional e.m.f. and electromagnetic induction,

Maxwell's equations and propagation of electromagnetic waves. The inaugural program was presided over by Prof. B. J. C. Babu. In his welcome address, the President of IAPT, Goa Regional Council, Prof. A. V. Kulkarni, briefly put forth the aims of the workshop and said that this workshop was the second in a series of such workshops envisaged for College teachers in Goa. The coordinator of the workshop, Dr. Radhika Vathsan delivered the vote of thanks.

Seven lectures were delivered during the workshop by members of the Physics Department. "Coulomb's law and the electric field" by Prof. A. V. Kulkarni, "Electrostatic Potential" by Dr. V. Sunil Kumar, "Conductors, Method of Images and Boundary Value Problems" by Dr. Chandradew Sharma, "Steady Currents and Magnetostatics I" by Dr. P. N. Deepak, "Magnetic Fields in Matter, Magnetostatics II" by Dr. Radhika Vathsan, "Electromagnetic Induction and Maxwell's equation" by Dr. Raghunath Ratabole and "Wave Equation, Plane Wave Propagation" by Dr. Toby Joseph

The workshop ended with a feedback session from the participants, leading to some interesting discussion between the participants and the members of the physics department. Participation certificates were also distributed during this session.

# From RNA to Protein: A comprehensive Workshop

#### Inauguration



Keeping in mind the trends and challenges being faced by biologists across industrial and academic disciplines. the "RNA to Protein" workshop was planned by the Dept. of Biological Sciences, BITS Pilani, K K Birla Goa Campus to equip researchers with skills that would enable them to cope with the emerging techniques and practices in the present scenario. The workshop was inaugurated by Prof. Dileep Deobagkar, Vice Chancellor of Goa university in the distinguished presence of Dr. RasikRavindra, Director, National Centre of Antartic and Ocean Research, Prof. K. E. Raman, Director, BITS Pilani, K K Birla Goa Campus, Dr. Utpal Roy, HOD Dept. of Biological Sciences, Dr. Sumit Biswas and Dr. Angshuman Sarkar, the Organising Secrataries. Dr. Usha Muraleedharan, HOD, Dept.of Biotech, Goa Univ; Prof. J K Pal, HOD, Dept of Biotech, Pune Univ& National Coordinator, DBT-JRF programme; Dr. N. Sriram, Director, Orchid Group of companies were present for the function. The resource persons for the Workshop were Dr. Sumit Biswas and Dr. Angshuman Sarkar. The major Sponsors of the workshop are Dept. of Science, Tech and Environment, Goa and BRNS, Dept. of Atomic Energy.

# Introductory Workshop on Scilab

The Department of Mathematics BITS Pilani, K K Birla Goa Campus organized a 2-day workshop on 'Scilab',during July 09-10, 2012. Scilab is free open software which is being used in wide range of science and engineering fields.

The workshop was intended to motivate as well as train the faculty and research scholars across the disciplines, in the area of scientific computation. The following topics were covered in the workshop with hands on experience:

- Introduction to Scilab
- Solving system of linear algebraic equations
- Numerical differentiation and integration
- Engineering applications of differential equations.

The workshop witnessed 25 participants from different departments of our Institute. The lone resource person DrDhanumjaya P, Assistant Professor, Department of Mathematics gave very inspiring and scintillating lectures with demonstrations. The workshop came to an end with the distribution of attendance certificate to the participants by the Dean, Prof Suresh Ramaswamy.

### workshop on

### Advanced School on Graph Algorithms

The Department of Mathematics in association with Department of Computer Science and Information Systems, organized a 5-day national level workshop Advanced School on Graph Algorithms during July 23-27, 2012. The workshop was sponsored by National Board for Higher Mathematics and Department of Science, Engineering and Environment, Goa.

Inaugurated by Dr N P Singh, Director, ICAR Research complex Goa and DrVenkatesh Raman, Professor, Institute of Mathematical Sciences, Chennai this workshop was intended to bring together and train the researchers in the area of graph algorithms. The main theme was to discuss the complexity involved invarious graph algorithms.

Advanced Graph Algorithms' including NP-complete reductions, Approximation Algorithms, Fixed Parameter Algorithms and Exact Exponential Time Algorithms were the topics covered in the workshop. Eminenet mathematicians Prof. Venkatesh Raman, IMSc, Chennai, Prof. Narayanaswamy, IITM, Prof. Sounak Mishra, IITM and DrSakethSourabh, IMSc., conducted the theory and problem-solving sessions.

Convened by Dr. T. Singh and the coordinated by Dr Anil Kumar and Mr. R P Joshi, the workshop benefitted 52 participants comprising faculty, research scholars and students from various parts of India.



Dr. N. P. Singh at the Workshop

# The Center for Entrepreneurial Leadership (CEL)

Aimed at creating leaders through entrepreneurial thinking, CEL at the campus involves itself in various activities:

**Mantra Awards** - BITSAA (BITS Alumni Association) hosts the Mantra Awards annually in association with CEL to recognize and award BITS Students who have shown extraordinary leadership skills and entrepreneurial drive all through their college career. Goa based entrepreneur, Neenad Desai was the Chief Guest at the Mantra Awards. 2011.

**RED** - The Rural Entrepreneurship Division of CEL works with women's SHGs based in Zari and Birla, in association with the Goa chapter of Nirmaan (a national level Social Welfare Organisation). Besides organising vocational training sessions and miscellaneous events, CEL also assists the SHGs in product marketing and distribution with the long term goal of establishing a self sustainable group.

**Summer in a Startup (SiS)** - SiS is a unique initiative that provides students of BITS campuses the opportunity to intern at some of India's most dynamic startups. SiS, in its third edition partnered with over 25 startups, with a total of 70 internships slots spanning over the domains of Marketing, Business Development, Web Design and Web Development, to name a few.

CEL has got approval for funding from DIT, Govt. of India for an Incubation Centre in Information technology. Easy Montra Technologies, Vipashyn Labs, Spectrum Casuals, toptalent.in and cubito.in, are some of the entrepreneurial startups by our students.

The concerted efforts of the students, alumni and faculty to promote entrepreneurship on campus resulted in the CEL being named as one of the top five centres of entrepreneurship among Indian Universities.

# CAREER TALKS AND EMBRYO LECTURES

Giving back to their Alma Mater, a number of Goa Campus alumni delivered career talks organized by the BITSAA Division. Embryo lecturesalso were organized by BITSAA during the semester through video conferencing with the help of BITS-2-MSPhD initiative of BITSAA International. These lectures enable students of all campuses of BITS Pilani to interact with Alumni from various parts of the world on varied topics, both general and subject specific.

#### **CAREER TALKS**

NAME	TOPIC	DATE
Mr. Nagesh P. Bharadwaj	Comprehensive Domain Analysis and Employable Cognitive Skills	1 Feb 2012
Mr. Sumit Sen , Mr. Abhineet Prasad Mr. Padmanabhan Thangaraj, Mr. Aditya Yadav, Mr. Rishabh Ginotra, Mr. Akhil Mehta	Career Talks	11 Feb.2012
Mr. Harsha Konduri	Road map to business career after BITS life	10 April 2012
Mr. Harsha Vardhan Sripathy	How my current role in the industry has been influenced by curricular and extra-curricular activities at BITS	12 April 2012

#### **EMBRYO LECTURES**

NAME	TOPIC	DATE
Mr. Vishnu Mankapati	Visualization and compression od 3D data	9 Feb 2012
Mr. Launce Moses	Careers in banking	9 March 2012
Mr. Manoj Thota	How did I use the Knowledge/Opportunities gained at BITS in my Professional life	13 March 2012
Mr. Abhishek B. K.	A transition from LAN Gaming to Ph.D	13 March 2012
Prof. S. P. Kothari	Financial crisis in US and Europe	4 April 2012
Mr. Navneeth K. P.	Selection Procedures for premier Management institutes	16 April 2012
Mr. Naveen Boppana	Discussion on Solar Energy and its applications	16 April 2012
Mr. Angad Gill	PS-2 in Cypress Semiconductors	18 April 2012

# distinguished lectures

SPEAKER	DESIGNATION	TOPIC	DATE
Mr. Jyotinath Ganguly	Visiting faculty at IIM- Bangalore, IIM-Kozhikode	Strategy, Innovation and Monetization in Industry	30 January 2012
Prof. Willy Verstraete	Ghent University, Belgium	Series of talks on Environmental Biotechnology	15 – 19 January 2012.
Prof. Dragan Djuric	University of Belgrade	New Functional programming language for Al	9 February 2012
Prof. M. V. Deshpande	Professor of Mathematics, IIT Bombay	Why epsilon and delta and what Next?	13 February 2012
Dr. Nuria Jimenez Garcia	Scientist, Helmholtz Centre for Environmental Research, Leipzig, Germany	Oil spill fingerprinting	16 February 2012
Prof. D. Balasubramanian	Director, LV Prasad Eye Institute, Hyderabad	Stem Cell Biology	17 February 2012

SPEAKER	DESIGNATION	TOPIC	DATE
Dr. K S. Dhathathreyan	Associate Director, Center for Fuel Cell Technology, Chennai	Aspects of Fuel Cell development (Materials to systems	23 February 2012
Mr. Suresh Arya	Program Director, NCI, NIH, US	(i)We and The Human Genomics (ii)HIV Discovery and Prevention	19 March 2012 20 March 2012
Dr. Ashok Kumar	Professor of Bioengineering IIT,Kanpur	Biomaterials and Tissue Engineering	21 April 2012

### visits by faculty enriching the learning

## experience

### international visits

Dr. Narendra Nath Ghosh visited the Chemical and Biological Engineering Department of Drexel University, USA as Visiting Research Professor in sabbatical leave during January 2012 to June 2012. He was hosted by Professor G R Palmese. There Dr Ghosh was associated with two projects (I) Electron-beam processing of polymers, which is a cutting edge technology and has the potential to be used in manufacturing light weight vehicles and military applications and (ii) synthesis of high tech polymers from renewable sources.

Dr. Narendra Nath Ghosh presented a paper entitled "Synthesis of Nanoparticle Incorporated Mesoporous Silica and Alumina based Materials and Their Applications" in the Symposium on Novel Materials for Sustainable Energy, organized by Chemical and Biological Engineering Department at Drexel University, USA on 10th May 2012.

Dr. Halan Prakash received Nara Institute of Science and Technology (NAIST), Japan, fellowship to visit NAIST during May-July 2011. Under this programme, research on DNA cleavage by cysteine containing mutant myoglobin was conducted in collaboration with Prof. Shun Hirota, NAIST, Japan

Dr. Sunil Bhand presented two research papers entitled 'Enzyme thermistor based discriminative determination of pesticide residues' and ' Automated Flow based biosensor for determination and discrimination of pesticide mixtures using genetically modified enzyme' at the 22nd World Congress on Biosensors during 15-18 May 2012 at Cancun, Mexico organized by Elsevier UK.

Dr. Anusuya Ganguly attended a special session on "stem cell analysis" at the CYTO 2012 conference held during 23-27 June 2012 at the Congress Center Leipzig, Germany.

Dr. Srikanth Mutnuri presented a paper Biomethanation potential of cashew apple waste at the International conference on Agricultural Biotechnology in Sustainable Development held in Colombo, SriLanka during 12-13 March 2012. Dr. Srikanth visited Helmholtz Centre for Environmental Research (UFZ), Leipzig, Germany from 20th May 2012 - 18 July 2012 for studying the microbial diversity in anaerobic digestors using TRFLP technique in collaboration with Dr.Marcell Nikolausz, Scientist, Department of Bioenergy at the Centre. This was funded by DAAD under reinvitation programme.

Dr. Srikanth Mutnuri at UFZ, Germany



**Dr.Utpal Roy** delivered an invited talk on "Antimycotic Substances from Wild-type Enterococcus faecalis and Bacillus subtilis RLID 12.1" at World Congress of Microbes-2 (WCM-2) at Guangzhou China on 31 July 2012.

Dr. Utpal Roy at Guangzhou, China



**Dr. Vineet Kumar Singh**, Assistant Professor, Dept. of Mathematics worked at the Kursk State University, Russia with Prof. E. B. Postnikov under the DST-BOYSCAST Fellowship Program from August-2011 to July 2012. During this period he worked on Computational representation in MathCAD of discontinuous functions with application to a formation of operational matrices. He also worked on Review of physical problems connected with anomalous diffusion (applications in hydrodynamics and random walks).

# invited lectures by faculty

**Dr. R. P. Pradhan** delivered an invited talk on Political Economy of Plastic Pollution in Coastal Zones at national Conference on Coastal Pollution held in S N College, Odisha during 20-21 Jan 2012.

Prof. Meenakshi Raman conducted two sessions on Professional Presentations and Conversations at SVNIT, Surat at the two-day workshop on Developing Soft Skills organized by them during 20-21 January 2012. She also conducted a one-day workshop on soft skills for professional success at ITM Institute of Hotel management at Kharghar, Navi Mumbai on 2 February 2012. As a resource person, she conducted two sessions on Presentation skills and Meeting Skills for AICTE sponsored 5-day SDP on Recent Trends in Business Communication at NIST, Berhampur, Orissa on 20 March 2012.

Prof. Meenakshi Raman at IMT



**Dr. Tarun Kumar Jha** delivered a talk on "Nuclear Astrophysics: Focusing telescopes on nuclear structure" at a Workshop on "Recent Advances in Theoretical Physics" organized at Navyug Science College, Surat, India during 24-25 January 2012.

**Prof. Dibakar Chakrabarty** delivered an Invited lecture entitled 'Snake Bite and Antiserum: Scope for Further Research' delivered at the National Seminar on Advances in Zoology and Life Processes held during 9-11 February 2012, Department of Zoology, University of Goa.

Prof. Dibakar Chakrabarty at Goa University



Prof. Meenal Kowshik delivered a series of talks: (i) Biological synthesis and applications of nanomaterials at UGC Sponsored National seminar on Nanomaterials: Synthesis, Characterization and Applications, 2-3 February 2012, Chowgule College of Arts and Science, Margao-Goa. (ii) Nanotechnology in Biomedical Applications for National Science Day celebration on 28th Feb 2012 at Dhempe College of Arts and Science, Panaji Goa. (iii) Bionanomaterials: Synthesis and potential applications at UGC Sponsored National seminar on Nanomaterials and their Applications, 13 – 14 March 2012, KLE Society's Raja Lakhamangouda Science Institute, Belguam-Karnataka.

Dr. Narendra Nath Ghosh delivered two invited talks: (i) "Development of Novel but Simple Chemical Methodologies for Preparation of Magnetic Nanoparticles, Polymer-Ferrite Nanocomposites and Mesoporous Advanced Catalysts" in the Department of Chemistry at University of Tennessee, Knoxville, USA on 2 April 2012 (ii) "Novel Synthetic Strategies for Preparation of Magnetic Nanoparticles, Polymer-Ferrite Nanocomposites and Mesoporous Advanced Catalysts" in the Chemical and Biological Engineering Department at Drexel University, USA on 4 May 2012.

Dr. Halan Prakash delivered an invited lecture on "Activation of Persulphate by nickel(II) azamacrocyclic complex: Toward effective degradation of persistent organic pollutants in environment" in the national conference on "Recent advances in inorganic chemistry" conducted by Department of Chemistry, Bharathidasan University, during 22-24, March 2012.





Dr. Debasis Patnaik delivered a lectures on (i) 'WTO and Dumping' at GCCI held by Sri Sri College of Management and MSME, Goa on 9 Feb. 2012 (ii) "Sustainable Society" conducted by GMA at Department of Management, Goa University on 22 Feb. 2012 (iii) "Role of Artificial Intelligence and Its Philosophical and Social Implications" at the National Conference held at National Institute of Science, Technology and Development Studies (NISTADS), New Delhi conducted in collaboration with Indian Institute of Advanced Study (IIAS), Shimla, on 20 March 2012 (iv) "Philosophy of Economics" at a workshop for lecturers and Asst Professors in Social sciences organized by the Department of Sociology, Goa University on 7 April 2012. He also evaluated the teachers' presentations.

## achievements

Dr. Halan Prakash received the best poster award for his presentation "degradation of dyes by advanced oxidation technology at the national conference on Recent advances in inorganic chemistry conducted by Department of Chemistry. Bharathidasan University. during 22-24 March 2012. The poster was jointly presented by Dr. Halan Prakash and his research scholars Mr. Gokulakrishnan. S and Ms. Priyadarshini.

Dr. Raghu Nath Behera received the Best Poster award for his poster entitled "Molecular Dynamics Simulations of Micellization of Alkyl Ethoxylate" at the INTERNATIONAL CONFERENCE ON GLOBAL TRENDS IN PURE AND APPLIED CHEMICAL SCIENCES (ICGTCS-2012), 3rd-4th March 2012, Udaipur, India,

Dr. R. N. Begera at Udaipur



Prof Sunil Bhand received certificate of appreciation form American Chemical Society for valuable contribution as peer reviewers for ACS Journals (USA) 2011-12.He also received the prestigious 2012 membership of American Association of Advancement of Science (AAAS, USA).

Ms. Akriti Rastogi, Research Scholar working under Prof. Dibakar Chakrabarty presented a poster on her research work entitled "Anticoagulant Activity of Moon Jellyfish (Aurelia aurita) Tentacle Extract at the 17th World Congress of the International Society on Toxinology held in Honolulu, Hawaii, USA from 8-13 July, 2012.

Ms. Clarice Perreira, Ms. Mansi Baveja (project students of Dr. Anusuya Ganguly) and Ms. Akriti Rastogi, (Ph.D. student of Prof. Dibakar Chakraborty) received the best poster award for their poster presentation on "Anticoagulants from Russell's Viper Venom" at the "National Seminar on Advances in Zoology and Life processes" at the University of Goa during 9-11 February, 2012.

Ms. Bhakti B. Salgaonkar (2010PHXF810G) and Mr. Kabilan Mani (2008PH29009G), Research Scholars of the Dept. of Biological Sciences, pursuing their Ph.D. under the guidance of Dr. Judith Braganca were awarded the CSIR Senior Research Fellowship in April 2012.

Mr. Prasad Rangaraj (2010PHXF817G), Research Scholar of the Dept. of Chemistry, pursuing Ph.D. under the guidance of Dr. Bhavana was awarded the CSIR Senior Research Fellowship in April 2012.

#### 14 of our students graduated in July 2012 secured admission to Top IIMs:

S. no	ID No.	Student Name	College Name
1	2008A4PS096G	KARTHIK SWAMINATHAN	IIM Shillong
2	2008A4PS362G	SURBHI VERMA	IIM Calcutta
3	2008C6PS349G	AKSHAT SINGHAL	IIM Ahmedabad
4	2008A8PS228G	NITHYA R	IIM Lucknow
5	2008A8PS235G	JOSHAN CHERIAN ABRAHAM	IIM Ahmedabad
6	2008A8PS280G	KABIR LOGANEY	IIM Lucknow
7	2008A3PS166G	NAKUL SHARMA	IIM Indore
8	2008A3PS158G	PHADKE SARTHAK SANJAY	IIM Ahmedabad
9	2008A3PS204G	KARANAM JYOTH KUMAR NAIDU	IIM Calcutta
10	2008A3PS197G	ADITYA M DIXIT	IIM Ahmedabad
11	2008A1PS501G	PRIYANKA GUPTA	IIM Lucknow
12	2008A1PS152G	DEO SAI SHIRISH	IIM Ahmedabad
13	2008A8PS286G	ANAND S	IIM
14	2008C6PS480G	MADHAV LADIA	IIM Calcutta

## The following students from our campus have been selected for the ISB Young Leaders Programme 2011:

2008A1PS517G Anshuman Bajoria 2008A8PS235G Joshan Cherian Abraham 2008A7PS108G Rijul Jain 2008A7PS625G Rajroshan Sawhney 2008A7PS133G V.Chandrasekar

## Vision 2020-Mission 2012 Update

The establishment of CISCO tele presence facility comprising the desktop conferencing, an 18-seater conference room and a 200-capacity lecture hall is a direct outcome of BITS Alumni giving back to their Alma Mater. With the alumni contributing \$600K, this project will facilitate cross campus teaching, video conferencing and desktop conferencing for faculty and students of BITS.

## significant projects

PRINCIPAL INVESTIGATOR & NAME OF THE DEPT.	TITLE OF THE PROJECT	FUNDING AGENCY, AMOUNT & DURATION
Prof. Srinivas Krishnaswamy (Chemical Engg.)	Seawater desalination using liquefied natural gas (LNG) refrigeration	GAIL, 3.82 crores
Dr. S. S. Baral Co-investigator: Mr. P. Venkateswara Rao (Chemical Engg.)	Development of efficient bioleaching process for the metal recovery from spent catalysts	DBT, 22.3 Lakhs
Dr. P. Venkateswara Rao Dr. S. S. Baral (Chemical Engg.)	Investigating the effect of co-digestion and advanced sludge pretreatment methods on the anaerobic conversion potential of the organic waste	DBT, 25.9 lakhs
Prof. K.R.Anupama (EEE) Co-investigators: Dr. Arun Kumar Jalan Dr. Lucy J Gudino Dr. K. N. Ponnani Dr. Sharad Srivastava Dr. Neena Goveas	Design and development of condition based monitoring of pipelines using wireless sensor networks	GAIL, 71.4 lakhs
Prof D M KULKARNI, Mr. A. C. KULKARNI, (Mechanical Engg.) Co-investigators: Dr. Hemanth Kumar, Mrs. JyotsnaKulkarni, Mr. Inian Thiruselvam.	Experimental Wear Analysis of an Artificial Hip Implant Materials using an Advanced Tribometer Customized for Bio-Tribological Studies'	Aditya Birla Sci & Technology Center (10.00 Lakhs), DUCOM: (10.00 Lakhs + Development cost) + 20.50 DST
Dr. Sachin D Waigaonkar (Mechanical Engg.)	Experimental investigations of rotational moulding process using nano-scale fumed silica composites	DST-FT, 18 Lakhs
Dr. Halan Prakash (Chemistry)	Design of peptides and their chemical modification	Aditya Birla GroupRs. 10 lakhs
Dr.Mridula Goel (Economics) Co-investigator : Ms.Pinky Pawaskar	Tourism in Goa and its Impact on Socio-Economic Conditions and Sustainable Development in the State	ICSSR, Rs 4.89 Lakhs
Dr. Ram Shankar Patel (Physics)	Magnetotransport in magnetic tunnel junctions	DST, 49 Lakhs
Dr. Teny Theresa John (Physics)	Photoluminescence Studies on Undoped and Transition Metal Doped ZnO Nanoparticles	DST-FT, 22.34 lakhs
Dr. Shalini Upadhyay (Humanities & Management)	Exploring Spiritual Quotient and Analyzing its Impact on the Research Performance of University Teachers	ICSSR, Rs. 6.58 lakhs

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 details
Dr. Srikanth Mutnuri	Biological Sciences	Reviewer of Water, Air and Soil Reviewer of Bioresource Technology Scientific committee member of the conference Global assessment for organic resources and waste management:ORBIT 2012, Rennes, France.
Dr. Meenal Kowshik	Biological Sciences	Reviewer for Journal of Hazardous materials and Biotechnology Progress
Prof. Sunil Bhand	Chemistry	Reviewed manuscripts for the following Journals I. IEEE Sensors (IEEE, USA) ii. Chemical Sensors (Simplex Acad.) iii. J. Agri Food and Chemistry (ACS, USA) iv. Biosensors and Bioelectronics (Elsevier) v. Journal of Hazardous Materials (Elsevier) vi. Analytical and Bioanalytical Chemistry (Springer) vii.AnalyticaChimicaActa (Elsevier)
Dr. HalanPrakash	Chemistry	Reviewed three papers for Journal of Hazardous Materials, and one for Journal of Mass spectrometry
Dr. Anjan Chattopadhay	Chemistry	Reviewed a book (2 Chapters) on Quantum Chemistry for Cambridge University Press Private Ltd.
Dr. Debasis Patnaik	Economics	Advisor to Transnational Group on Diaspora, IGNOU- New Delhi Reviewed paper for publication in Indian Journal of Manpower Planning from Manpower Planning Institute, back office of the Indian Planning Commission, New Delhi
Dr. Anil Kumar Pundir	Mathematics	Reviewed one paper for "International Journal of Applied Mathematics and Computation".Computation"

## caring beyond our walls

### **NGO Confluence 2012**

Held on 15 Jan 2012 the confluence was organized by Goa Chapter of Nirmaan Organization and V.M. Salgaocar Bros Pvt Ltd and Rotaract Club of Vasco da Gama. It aimed at creating a platform for the exchange of ideas and experiences between the NGOs, diverse experts, and organizations working on similar sustainable societies. The conference was attended by some prominent personalities in the social entrepreneurship sector who have done exemplary work in this field. The event attracted many NGOs all over Goa, students and faculty from diverse fields, specifically from humanities, management and engineering disciplines.

Prof. K. E. Raman at NGO Confluence



### We Care Film Festival

Carrying the message of celebrating diversity, the 'We Care' film festival that was organized at BITS Pilani Goa on 25th January aimed at creating awareness and sensitizing youngsters towards the travails of the socalled disabled people. The festival screened a number of captivating films showcasing the stark realities of disability issues and was organized in Goa by the Delhibased Organisation Brotherhood in association with International Centre Goa and the Disability Rights Association of Goa (DRAG) . Members of Nirmaan and the Movie Club of Goa campus coordinated the event. The primary objective of the films was to efface the heretical image of a disabled person that is deep-rooted in our minds. Four categories of films lasting one, two, three and five minutes were viewed by a gathering of 100 faculty members and students.

The lives of the disabled, their optimistic approach towards earning their livelihood and the importance of

their family's support were highlighted in these short movies. Mr.SatishKapoor, the Founder-Director of *We Care Film Fest*, Ms. Sandhya NS, film producer and director, and Mr. Avelino de Sa, President DRAG addressed the audience. BITS Goa had the privilege of inaugurating the Festival in the year 2010 and since then the bond between 'We Care' and BITS Goa family has grown stronger.

### **Virasat**

SPICMACAY's program, Virasat 2012 held for the first time in campus presented an opportunity to music and art enthusiasts to hone their skills by learning from the best in the business and at the same time relish classical music like never before by watching the Maestros perform. It was a four-day extravaganza that had everything from Warli Painting and Bharatanatyam workshops to Carnatic and Hindustani Vocal Performances to Violin and Flute recitals.

**Lighting of Lamp** 



The inaugural night witnessed Padma Vibhushan Pt. Hari Prasad Chaurasia enchanting a huge gathering of zealous fans through the mesmerizing tunes on his flute that seemed to reverberate with the audiences. Dr.Smt. Sucheta Chapekar followed this with a classical dance performance of NRITYA GANGA (created by herself,) a magnificent synthesis of Bharatanatyam and Hindustani Music that left the audience spellbound. Pt. NayanGhosh's soothing tunes on the Sitar and Smt. Sunayana Hazarilal's expressive foot tapping Kathak were the main attractions on the second day. The next day saw a truly spiritual and enrapturing violin recital by violin mastero Dr. N. Rajam.

Vocal aficionados thronged to the auditorium on 8th April, the closing day to enjoy Carnatic Vocal by Smt. Vani Sateesh and Hindustani Vocal by Pt. Uday Bhawalkar.

## creative zone

## **Quark 2012 – Learning through Competition**

Quark 2012, the annual techno-managerial fest of BITS, Pilani-K.K. Birla Goa campus, was held in association with Mahindra Rise from 3rd to 5th Feb, 2012. The inauguration ceremony commenced with the traditional lighting of the lamp by the Chief Guest, BITS Pilani alumnus Baba Kalyani (Chairman, Bharat Forge) and institute Director Prof. K E Raman. Prof. Raman lauded the student body for organizing a national level technical festival as multi-dimensional as Quark. On behalf of the institute, he welcomed the Chief Guest, Mr. Kalyani, acknowledging his many achievements.

Prof. K. E. Raman Lighting the lamp



Mr.Kalyani, an alumnus of BITS Pilani and MIT, Massachusettss is the Managing Director of Bharat Forge, and has been a Padma Bhushan recipient. Baba Kalyani was honoured with the 'BITS Pilani Distinguished Alumnus Award' in Entrepreneurship for his extraordinary contribution to the forging industry and to the society. Mr.Kalyani addressed the gathering, showering praise on the creativity of the students. He expressed the hope that they would leverage their technological skills to help India achieve its full economic potential.

The Mime Club of BITS Pilani, Goa captured the audience with a wonderful performance centred on the importance of following one's own choice in life. The spectacular use of shadow formations during the show deserves special mention. The evening ended with a performance by the Dance Club of BITS Goa, highlighting free-style dance forms and the use of unconventional props such as basketballs.

#### **Dance Club in action**



Besides Goan institutes like the Padre College of Engineering, the festival witnessed high levels of participation from premiere national institutes as well. The events conducted during Quark were categorized as Corporate, Electrify, Design and Build, Programmer's Inc, Roboficial, Elixir, Specials, Initiatives and online events. The Corporate events included BluechipBeatdown,testing participants on product launch and marketing skills, Intellect (a case study contest), Quest (a B-Plan contest) and Wall Street Revolution-a virtual stock market trade-off. Electrify presented Digilogica, Digital Inciso and Q-Contacto. Burnout, Catapult, Starscream, Sinbad the Sailor and Heat Wave were the chief events in the popular Design &Build category. Burnout judged one's control of automobile machine play: Catapoult tested projectile motion skills while Star Screamwas a Robotics event. The theme of using a chemical reaction to accelerate the boat model set Sinbad the Sailor apart from other events. Programmers Inc. was entirely based on one's coding skills with events such as Code Quest, Geek NLatin, Applification. Roboficial included Amphibious, Raiders of the Lost Ark, RoboKombat and Analglyp, all emphasizing on development of amphibious vehicles. Elixir consisted of an array of miscellaneous competitions such as Celesticion, Chemophilia, M.A.D, The Amazing Race, and a general open quiz. Online events, including El-Dorado deserve special mention, the massive participation having broken national festival records. Specials saw Matka-an online gaming tournament, Open Showcase and Paper Presentation.

Workshops conducted by eminent professionals on subjects as wide ranging as Ethical Hacking, Haptic Robotic Arm, Android App Development, and Business Law were well-received by the participants. BITSMUN, a simulation of a United Nations conference attracted large outstation participation. Unconventional technology was also showcased at Quark 2012 through

the exhibitions including Miniature Machine Models, Grid Bots, Mobile Planetariums as well as Defence Research.

Quark '12 played host to a number of internationally renowned Guest Lecturers including the likes of journalist PrabhuChawla ,Nokai 888 designer Tamer Nakisci and Vice President of Applied Materials Nir Merry.

Aurora witnessed a mentalist's voyage into the canyons of the human subconscious and a performance by the popular Delhi-based band Faridkot. The informal events like Sumo Wrestling and Play Station gaming enjoyed immense popularity amongst the festival attendees. Quark '13 ended with a wonderful display of 3D holographic mapping of the institute B-Dome by DreamPoint Animations, the first of its kind in Goa.

**Spree 2012** 



## **SPREE 2012 – BATTLE FOR SURVIVAL**

The four day long Spree 2012 :Battle for Survival, the annual sports fest kicked off with the inauguration ceremony on the 29 February 2012. The ceremony played host to Indian Chess Grandmaster Krishnan Sasikiran as the Chief Guest. The inauguration included a stunning performance by the 'YellowBoyz', a three-man acrobatic group from Goa, along with a laser show by the IPL Laser show organizers, 'LaserTech'.

SPREE saw a wide range of Participation from Goa with the likes of PCCE, RIT, NIT and Don Bosco actively involved in each event in addition to hundreds of off-station participants from the likes of the Delhi and Mumbai Universities. Spree 2012 offered an assortment of 23 events. Regulars like Cricket, Football, Basketball, Badminton, Tennis, Chess and Volleyball were accompanied by special events like Gully Cricket,

**Laser Show during Inaugural Ceremony** 



Futsal, 3BA, Mixed Doubles, Mini Tennis, Anti-Chess and Kick Volleyball. Tennis finally found its rightful place in Spree, credits - the newly constructed Tennis courts. Workshops like Boxing, Beatboxing and Air Rifle shootings had many takers. The events were fiercely contested for by over 1300 participant from around 100 colleges across the country. The special nights; Movie night, Karaoke night, and DJ night, provided a breather from the gripping action on field.

As for the results, Loyola College, Chennai wrapped up the Table Tennis event while Hans Raj Delhi won the Basketball event. The host teams marched their way into the Cricket and Football semi-finals and won the overall Chess event. The Goa Spree Half Marathon held on the 11th of March, an extension of Spree 2012 finally drew curtains to the sporting extravaganza. The Marathon saw decent participation from enthusiasts for the 21km and 5km runs. The 'Raghu Dixit Project' was held as the 'Half-Marathon night'. This musical collaboration, by talented musicians spellbound the audience and brought a memorable end to the fest. Spree 2012 had successfully taken sheer sporting talent a notch higher, promoting the fortitude of true sportsmanship, just as it had promised.

**SPREE 2012** 



# introducing new faculty

Name	Designation	Discipline	Research Area
Ms. Parul Sahu	Lecturer	Chemical Engineering	Thermodynamic Property Prediction
Shailendra Kumar Dhakad	Lecturer	EEE	RF MEMS, Semiconductor Nanotechnology
Rakesh Mote	Assistant Professor	Mechanical Enginnering	Optics and Plasbonics, Nanofabrication
Karthikeyan G.	Assistant Professor	Mechanical Engineering	Micromachining, Microsystems
Siva Rama Krishna Prasad Talasila	Lecturer	Computer Science	Network Science
Kundan Kumar	Assistant Professor	Biological Sciences	Plant Physiology and Plant Molecular Biology
Dr. Prabal Paul	Assistant Professor	Mathematics	Cryptography
Dr. Alpesh Kumar Dhorajia	Assistant Professor	Mathematics	Computative Algebra
Dr. Ethirajulu Senthamarai Kannan	Assistant Professor	Physics	Experimental Condensed Metaphysics
Ms. Pragyan Paramita Barik	Lecturer	Humanities and Management	Sociology
Mr. Solano Jose Savio Da Silva	Lecturer	Humanities & Management	Land Related Issues, Electoral Politics

## introducing new officers

Name	Designation	Office	Date of Joining
Mr. Nikhil Dixit	Public Relations Officer	Public relations	1 June 2012
Ms. Sonia Nagarsekar	Human Resources Officer	Administration	2 July 2012
Mr. Surendra Kinlekar	Procurement Officer	Maintenance	2 July 2012
Mr. Gourab Nandy	Practice School Manager	Practice School Division	5 July 2012
Mr. Debasis Gupta	Deputy Registrar	Administration	12 July 2012

# snapshots

**Dance Night** 



**Burn Out Event During Quark** 



Raghu Dixit Project



**Spree Marathon** 



Drama club



**Ugadi Celebrations** 



# editorial team



From Left: Vipul, Sandeep, Pooja, Dr. Judith, Prof. Meenakshi, Abhijeet, Chirayu

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## **BITS** Pilani

K K Birla Goa Campus

## mediaspeak

#### India yet to learn how to run a coalition govt: Lord Meghnad With Students of BITS







**Lord Meghnad Dessai to interact** 

Making a

E PATIENTS REGISTERED IN GMC AS STATE'S PERATURE RISES 14

Coalition of regional parties vill form next govt, says Desai

Sangolda Lightning storm into final

THE HINDU . MONDAY, APRIL 2

#### Interaction

PANAJI: Lord Meghnad Dessai, Professor Emeritus, London School of Economics and Political Science, will interact with

TIN





पणजी, ता. १५ (क्रीडा प्रतिनिधी) दिवेश अगरवाल याने ६८ चेंड्रंत केलेल्या शतकी खेळाच्या जोरावर गोवा क्रिकेट असोसिएशनतर्फे आयोजित दक्षिण विभागीय अ गट क्रिकेट स्पर्धेत क्रिकेट क्लब बिट्स दिवेश अगरवाल पिलानी संघाने विजय नोंदविला. झुवारीनगर येथील बिट्स पिलानी मैदानावर झालेल्या

सामन्यात त्यांनी वास्कोच्या नूरानी क्रिकेट क्लबला ६९ धावांनी हरविले. दिवेशने अभिजित पंडियारी याच्यासह पाचव्या चाजाना रुरावल. ादवरान आमाजत पाडवारा वाच्यासह पांच विकेटसाठी केलेली ८२ धावांची भागीदारी निर्णायक ठरली. संक्षिप्त धावफलकः क्रिकेट क्लब बिर्स पिलानीः ४० षटकांत ८ बाद २३८ (दिवेश अगरवाल १०१, अभिजित पडियारी २३, चंदू लमाणी नाबाद १२, सागर खोर २-४०, उदयसिंग पाटील १-३४) वि. वि. नूरानी क्रिकेट क्लब ३४.४ घटकांत सर्वबाद १६९ (उदयसिंग पाटील ७१, सफंराज



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