

Semester-I notes 2011-12

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K K Birla Goa Campus

lead

innovate



BITS Pilani
K K Birla Goa Campus



CONVOCATION 2011



“Think locally and act locally” said Dr. T. Ramasami at the first ever Convocation Ceremony of BITS Pilani K. K. Birla Goa Campus held on Sunday, the 21st August 2011. Dr. T Ramasami, Secretary to the Government, Department of Science and Technology (DST), stressed on the importance of having people-focussed innovation systems in India. Invoking the name of Mahatma Gandhi, the Chief Guest of the ceremony, urged towards a 'Swaraj' movement in innovation. He called upon the proud 580 graduates of the BITS Pilani, K K Birla Ga Campus to direct their education towards building an innovation-driven India.

BITS Pilani, established in 1964 has borne witness to such a ceremony, three times before from 1969-1971. The annual tradition which was then halted on account of the Bangladesh war revived itself after a long hiatus of 4 decades. The Goa Campus was honored to be the flag-bearer of this re-born custom. 745 degrees were awarded to the students who have graduated during 2010–2011.

Dr. Kumar Mangalam Birla, the Chancellor, through his message congratulated the graduating students and inspired them to be passionate in carrying out all their endeavours. Prof. B. N. Jain, the Vice Chancellor presented the achievements and the challenges to be faced by BITS Pilani in the years to come. He also brought to light the unique features of the BITS education system and spoke of the University's major renewal project- 'Vision 2020, Mission 2012'. Besides revising the curriculum and promoting research, the

project plans to implement an ERP system in all campuses and all in all, firmly establish BITS as a recognized technical institute on a global platform.

Prof. K.E Raman, Director of the Goa campus, then gave a detailed report of academic, research and other developments at BITS campuses over the last few years, highlighting collaborative projects of industrial importance with the likes of Zuari Industries and Gas Authority of India. He highlighted certain significant projects funded by various agencies such as DST, DRDO, CSIR, UGC etc.

The graduating students were then awarded with their rolls of honour by the Vice Chancellor. The Chief Guest, Dr. T. Ramasami awarded the Medals. Anurag Sharma was the recipient of the Gold Medal, while Ishan Vishnoi and Mantri Shruti both received a Silver Medal. Shruti Padmanabha was awarded the Bronze. The ceremony concluded with Prof. Suresh Ramaswamy, Dean of Administration at BITS Pilani, K K Birla Goa Campus, delivering the Vote of Thanks.

The grand and solemn function of CONVOCATION 2011 was attended by the enthusiastic graduating students, their proud parents, Directors of all campuses, all faculty and staff of the campus.

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a confluence of ideas

academia

seminars / conferences /
workshops / training programmes

workshop on

Intellectual property Rights Management

A One-day Workshop on Intellectual Property Rights (IPR) Management was organized by Entrepreneurship development and IPR Unit of Pilani and Goa as well as the Ministry of Micro Small and Medium Enterprises (MSME) on 17th September, 2011 at the Goa Campus. Apart from the Faculty and research and graduate students of BITS Pilani, K K Birla Goa campus, there was a welcoming response from the local industrial research centers, colleges and R&D institutions. In all there were 42 participants.

Dr. Diwakar, Director R&T, Syngenta Bio Sciences, Goa, was the chief Guest. He spoke on the importance of IPR management and the need for researchers to be aware of this importance. Apart from publications in technical Journals, he stressed the importance of aggressive patenting.

Mr. Satya Pal Arora, a Global IPR law consultant, Mr. UnnatPandit, Chief, IPR Management Group of CadilaPharma, Prof. Arya Kumar, ED and IPR Unit, BITS Pilani campus conducted the sessions with active participation from the attendees.

BITS Pilani K K Birla Goa Campus has taken a lead in creating facilities for e-patenting and a few more workshops are planned with external faculty for training on patent writing and filing as well as defending the patent against objections.

Brand style guidelines rollout session

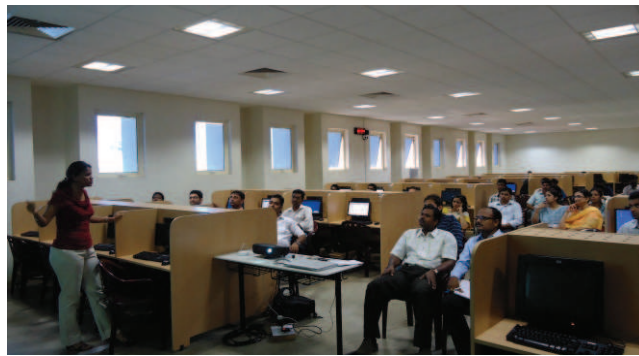
The Brand Style Guidelines for BITS Pilani has been developed by the company Fractal Ink . Some of these guidelines have already been implemented for the Convocation, BITSCAN, Placement Brochure and Advertisements. For a complete rollout of the Guidelines a session was organized at the campus where representatives from Fractal Ink presented the guidelines to faculty, students and staff. This session was followed by discussion.

Content Management Workshop for website development

The workshop aimed at training the website coordinators of various departments and divisions who are responsible for creating & updating the Web Pages on how to use the CMS. The workshop was conducted by Geeta and Tanay of Fractal Ink and coordinated by Paras Kaushik and Judith Braganca.

Web content management system (CMS) is a software system that provides website authoring, collaboration, and administration tools designed to allow users with little knowledge of web programming languages to create and manage website content with relative ease. A presentation layer displays the content to website visitors based on a set of templates.

CMS Workshop



CMS allows non-technical users to make changes to a website with little training. A WCMS typically requires a systems administrator and/or a web developer to set up and add features, but it is primarily a website maintenance tool for non-technical staff.

The BITS Pilani new website based on CMS was launched on 20th December 2011. The new online face of BITS Pilani integrates all the 4 campuses of BITS Pilani.

workshop on MOODLE

Keeping in view of the ERP implementation at BITS Pilani campuses, a workshop was conducted in the first week of November with the aim of acquainting the faculty members with using MOODLE to manage their courses. With Dr. Raghunath Ratabole, Dr. Radhika Vathsan and Dr. Toby Joseph as 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 instructor- in-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.

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.

workshop on Demonstration Based Teaching of Science in Schools

Prof. H.C Verma (IIT Kanpur) the renowned educationist and author who has played an important role in spreading interest in Science among the school students especially in rural areas in North India conducted the 2-day workshop at the campus. Indian Association for Physics Teachers and Goa RC, joined BITS Pilani, K K Birla Goa Campus in organizing this workshop which

was partially funded by State Council for Educational Research & Training (SCERT) Govt. of Goa. Attended by about 100 school teachers of science with a physics background from all over Goa, the workshop was inaugurated by Prof. K.E. Raman, Director and Shri. N.G. Honnekeri, Director of SCERT Govt. of Goa. Prof. A.V. Kulkarni, President IAPT Goa RC, Dr. Radhika Vathsan, Treasurer IAPT Goa RC introduced the objectives of the workshop. During the keynote address at the Inaugural function, Prof. Verma emphasized upon the need for introducing demonstration experiments picked up from everyday life, using everyday objects, into the class room. This would, according to him, reconnect the child with real world experience, and revive thinking and reasoning skills, that may have lain dormant in the child.

Prof. H.C Verma at the Workshop



Demonstration of the validity of Pascal's Principle using syringes, weightlessness using a slinky, electrostatic attraction and repulsion using plastic drinking straws, electromagnetic phenomena such as eddy currents, etc., were among the experiments demonstrated by Prof. Verma. He also emphasized the importance of measurements and speaking of physical quantities in terms of their values, instead of the abstract way that they are referred to. The participant-teachers enjoyed the demonstration sessions and gained a lot of insights into the teaching of physics to their students.

Prof Erwin Desa, Dean of Natural Sciences Goa University, addressed the participants and extended his thanks to Prof. H.C. Verma at the valedictory session. A special interactive session was organized for the campus students and faculty with Prof.H.C.Verma. Attended by a large number of students and faculty members, the session would be cherished by them forever.

ERP Training

With a view to identify the effectiveness of ERP modules to be implemented under BITS ONE ERP project and to familiarize the faculty, students and staff the future users of these modules, ERP, a number of training programmes coordinated by Prof.J.V.Raore were conducted during the semester as detailed below:

S.no	Date	Topic	Resource Person	Participants
1	21 - 22 Nov 2011	ARCD Calender for Operation- Student Registration and Planning	Ashutosh Sinha (WIPRO)	Nucleus members and supporting staff
2	23 -24 Nov 2011	SWD-Student Financials	Ankit Mittal (WIPRO)	Staff
3	21 - 24 Nov 2011	Human Capital Management (from Hyderabad campus)	Anuj Verma (WIPRO)	Staff
4	22 Nov 2011	Student Course Registration	Ashutosh Sinha (WIPRO)	Faculty

EMBRYO LECTURES

BITS Alumni Affairs Division organized three embryo lectures 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.

Karthika Periyathambi	Stanford University	Introduction to Computer Architecture	24 August 2011
Mr. Dhruv Balwada	Florida State University.	applying for graduate studies	1 October 2011
Mr. Aniruddha Ghosal.	General Analytics Associate at ZS associates	Careers in Consulting	8 October 2011
Mr. Lohit Sahu	Director and founder of Physok Solutions	An Introduction to Entrepreneurship	9 November 2011

distinguished lectures

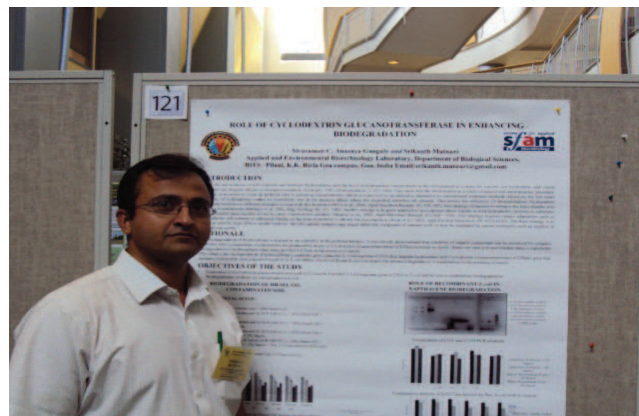
SPEAKER	DESIGNATION	TOPIC	DATE
Mr.Raju Reddy	CEO,Sierra Atlantic and Chairman, BITSAA International	“My Story :Journey of Entrepreneur”	8 August 2011
Mr. Dhruv Balwada EMBRYO Lecture	Masters in physical oceanography at Florida State University.	Guidance for all the students applying for graduate studies or planning to do so	1 October 2011
Prof. Yashwant Gupta	National Centre for Radio Astrophysics Tata Institute of Fundamental Research	Radio Astronomy : Probing the Universe at radio wavelengths	23 September 2011
Dr. Murali	Managing Director with a US based company called 'Environmental Financial Products'.	Financial Innovation & Evolution of Environment Markets	13 October 2011
Mr. Lohit Sahu EMBRYO Lecture	Director and founder of Physzok solutions	An Introduction to Entrepreneurship	9 November 2011
Mr. Babu Aiholi	Faculty , Department of Economics, Goa University	Technical Analysis	12 November 2011
Dr. Rajeev Shorey	President of NIIT university	RECENT TRENDS IN COMMUNICATION AND NETWORKS	25 November 2011
Professor (Dr.) Manas Mandal	Roseman Institute of Pharmacy, Nevada, USA	BACTERIAL TOXINS IN VACCINE DEVELOPMENT	15 December 2011

visits by faculty enriching the learning experience international visits

Dr. Srikanth Mutnuri Worked under Prof Max Haggblom, Rutgers University, USA under Indo US Research Professorship programme of American Society for Microbiology on the topic “**Microbial Diversity in bilge oil contaminated sites using Stable isotope probing**” from July – August 2011.He also attended and presented a poster at the prestigious Gordon Research conference on Applied and

Environmental Microbiology held at Mount Holyoke College, South Madley, Massachuset,USA during 10-15 July, 2011 titled “**ROLE OF CYCLODEXTRIN GLUCANOTRANSFERASE IN ENHANCING BIODEGRADATION**”

Dr. Srikanth Mutnuri at Massachuset,USA



He gave an Oral Presentation at 1st International Conference on Biogas Microbiology organized by Leipzig, Germany during 14 – 16 September 2011 at Helmholtz Centre for Environmental Research titled “Anaerobic co digestion of sewage and food waste”

Dr. S.D. Manjare presented a paper on Application of Life Cycle Assessment to Diammonium Phosphate Production at a conference On Energy, Environment and Sustainable Development held at Shanghai, China, during 21-23 October 2011

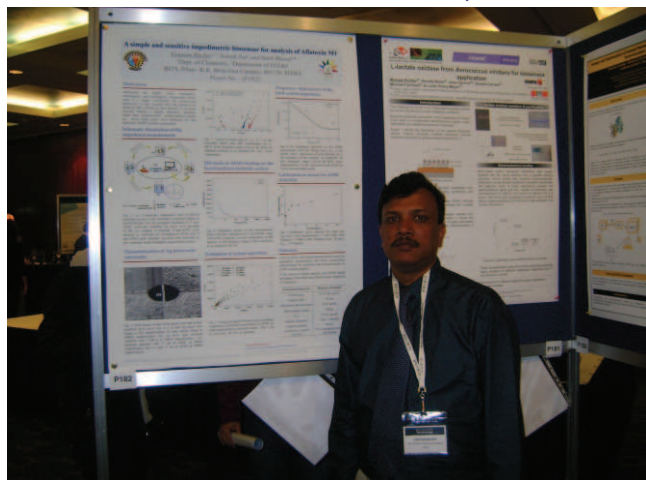
Dr. S.D. Manjare at Shanghai, China



Dr. N N Ghosh presented a paper on Synthesis of Ag/TiO₂ Nanoparticle Loaded Mesoporous SiO₂ and Al₂O₃ Catalysts and Study of their Catalytic Properties in the International Symposium on Nanoporous Materials VI, at Banff, Alberta, Canada during 21- 24 Aug 2011. The paper is authored by Bhanudas Naik, Subhenjit Hazra and Narendra Nath Ghosh.

Mr. Gautam Bacher presented a paper on A simple and sensitive impedimetric biosensor for analysis of Aflatoxin M1 at the 2nd International Conference on Bio-sensing Technology in Amsterdam, Netherland during 10-12 October 2011.

Mr. Gautam Bacher at Amsterdam, Netherland



Dr. Debasis Patnaik visited Nepal and Bhutan during June -July 2011. He presented a paper on Environment and Tourism in Nepal; Changing Face of Marxian Philosophy in the Context of Indo-Bhutan and Chinese relationship at Nepal University, Royal College of Thimpu. He also visited monasteries and nunnery of Nepal and Bhutan to distribute J Krishnamurti literature and subsequently discuss with interested parties.

invited lectures by faculty

Dr. Srikanth Mutnuri delivered an invited lecture on “Wastewater ecology and optimization of aerobic treatment process for treating recalcitrant pollutants and recent trends in biological treatment” at Mumbai on 9th December 2011. organized by Energy and Environment Division Choramandalam MS Risk Services.

Dr. S.D Manjare was the Chief Guest and Key note speaker at the inaugural function of the workshop on Energy Management and Audit organized by the Department of Chemical Engineering held at Padmashri Dr. VitthalraoVikhePatil Institute of Technology and Engineering (Polytechnic) Pravaranagar, Pune, during 5-9 September 2011.

Dr. Mridula Goel gave a talk on Nurturing Entrepreneurship and Building Sustainable Economies in Tier 2 & 3 Cities at *CMC's launch of ePragati – Empowering Emerging India* – event in Goa on 26 August 2011.

Dr. Mridula Goel's Talk



Dr. Debasis Patnaik conducted Workshops

(i) on Perspectives and Imperatives in Indian economy for Japanese students at Guesthouse classroom Goa university organized by Department of Economics and Sociology on 6 and 7 December 2011.

(ii) on Bio terrorism at Goa International center organized by the Department of Economics of Goa university-Department on 15 December 2011. Dr. Patnaik delivered invited lectures

(I) on Application of GIS for assessment of water Pollution in Goa river in Law and Society conference held at Cuttack at Madhusudan Law College on 17 Dec 2011.

(ii) on GST in India at the Department of Economics, Goa university in September 2011.

Dr. K. Chandram, delivered a lecture on Harmonic analysis of Doubly fed induction generator in wind energy conversion system as a resource person in a 2-day workshop on Renewable Energy Sources their Interconnections with Power Grid (UGC Sponsored) at Acharya Nagarjuna University, Guntur, Andhra Pradesh on 12 November 2011.

Dr. R.N Panda delivered an invited talk on Synthesis and characterization of transition metal nano-particles at the Silver Jubilee Annual Conference of Orissa Chemical Society & National Conference held in Sambalpur university, Orissa during 24-26 December 2011.

Dr. Ch. V. V. S. N. V. Prasad delivering valedictory speech at Workshop on Modelling, Analysis and Industrial Applications of Advanced Operations Research Techniques held at MS Ramaiah Institute of Technology, Bangalore in August 2011.

Dr. Prasad delivering speech



Dr. Meenakshi Raman Conducted a two-day FDP for Teachers of MCA and BE of Gujarat Technical University in *Communication Skills* at NICM/Jairambhai College of Computer and Management Education, Gandhinagar, Gujarat during 17-18 September 2011. She delivered guest lectures for the employees of JSW, Toranagallu (registered for WILP programme) in Technical Report Writing on 11 September 2011. Prof. Raman delivered a keynote speech on *A framework for an activity-based instruction of humanities courses at technical institutions*, at the international conference organized by JPUIT, Solan, HP during 23-24 September 2011 and delivered a theme talk on *Interpersonal communication as an essential ingredient of organizational bonding* at the national conference on Workplace Communication strategies for competence building organized by ITER, SOA University, Bhubaneswar during 22-23 December 2011.

Dr. Meenakshi Raman



achievements

Dr. Narendra Nath Ghosh has been the first faculty member of BITS Pilani to have taken up a sabbatical. Invited as a Visiting Research Professor by the Chemical and Biological Engineering Department of Drexel University, USA Dr.Ghosh has been granted sabbatical leave. He will be in Drexel from January 2012 to June 2012

He is working in the Department of Chemical and Biological Engineering of Drexel University with Professor G R Palmese. His broad area of research is Advanced Polymers and he will be working in 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. In these projects he and Prof. G.R. Palmese will address the fundamental problems associated with the polymer processing and how to overcome those shortcomings so that we can use the electron beam technology for polymer processing.

Mr. C. Chandra Sekhar, a Ph.D. scholar of Biological Sciences won the Best Oral Presentation Award for presenting his research paper "Fibrinogenolytic and Anti Platelet Aggregation Activities of Lahirin" at the 1st National Conference of the Toxinological Society of India held at Madras University (Guindy Campus) on 17-18 December, 2011.

Under the initiative of **Dr. Angshuman Sarkar** BDH Biosciences, Gurgaon conducted a one-day seminar in August where a lecture was delivered on "Use and Applications of Fluorescence Activated Cell Sorter (FACS) in Research". This was followed by a quiz test attempted by where 35 students of the campus. Three students selected for free training on FACS at BDH BIOSCINCES.

Dr. NN Ghosh and his research group have published a paper in the "Journal of the American Ceramic Society", which is one of the top ranking journal in the area of materials science and ceramics.

Dr. Chandradew Sharma has published a paper on Determination of Weak Amplitudes Using Bose Symmetry and Dalitz Plots in a very highly rated international journal Physical Review Letters (PRL) of American Physical Society on 27th December 2011.

This work is related to test the Standard Model of High Energy Physics.

Jointly authored by **Dr.Mridula Goel and Ms. Devika (2007B3A7417G)** the paper on "Empowering Marginalized Sections of Women through Initiatives by Community Based Organizations: A study from India", was circulated at International Sociological Association, (ISA-RC26) ,XXXIII Conference on "Supporting Sustainable Communities in times of Emergency – Participation, Empowerment and Democratic Innovations at Local Level" ,in Athens, Greece on Sept. 14-16, 2011.

Dr. Ranjan Dey presented a poster on Design of a Portable Mobile Refrigerator at the 81st Annual Session of the National Academy of Sciences India(NASI) and the National Symposium on "Sustainable Management of Biodiversity using Science and Technology" at the University of Kerala, Thiruvananthapuram from 24th – 26th , November, 2011 .The poster presentation was a part of the Computer Oriented Project (COP) done by three fourth year Undergraduate students, **Aditya Khandekar(2008B1A4672G)**, **Anuja Sahasrabudhe(2008B3A4505G)** and **Suchismita Naik(2008B4A8570G)**. The NASI members were quite enthusiastic about the Poster and carried a copy with them to NASI headquarters for display.

Deepanshu Mehndiratta(2010A1PS455G) created Wikilive <http://www.wikilive.in> a Wikipedia Live Search. Using Wikipedia's APIs, Ajax, jQuery libraries and Javascript he set out on this project and 5 hours later, was up and running. The website allows the user to type in a search query and it offers all relevant Wikipedia search results along with a preview of Wikipedia article itself in realtime. "YouTube instant" created by Feross Aboukhadijeh, a Stanford Student about a year ago inspired Deepanshu for this creative endeavor.

Kartik Aneja(2008C6PS322G) won the KinectEducation's first contest for his winning video submission NayiDisha: A New Direction that aims at helping the underprivileged students to interact with a computer, and allow them to use it as a learning tool.Kartik won \$500 which he decided to donate to his high school to provide Kinect cameras so that students can start exploring ways to use the Kinect sensor to help people with such disabilities. His award winning video and more information are available on <http://www.kinecteducation.com/blog/2011/12/08/kinecteducations-what-will-you-create-contest-winner-for-best-video/>.

significant projects

PRINCIPAL INVESTIGATOR & NAME OF THE DEPT.	TITLE OF THE PROJECT	FUNDING AGENCY, AMOUNT & DURATION
Srinivas Krishnaswamy Chemical Engineering	(i)Coke reduction and Selectivity increase in allyl chloride process (ii)Studies on an enhanced efficiency contactor and once-through aqueous ammonia process based flue gas CO ₂ capture process for reuse in fertilizer production (iii)High - efficiency energy conversion in steam boilers using unmixed combustion (Proposal approved for funding by DST)	Rs. 10,00,000/- Funding agency: ABG Group Rs. 10,00,000/- Funding agency: ABG Group Rs. 33,75,000 (to be funded by DST) Collaborators: Thermax Limited, Pune (funding Rs. 4,00,000/-)
Sumit Biswas Biological Sciences	Physicochemical Characterization of the primary sigma factor of <i>Vibrio cholerae</i>	Rs. 31.75 lakhs DBT's Twinning Programme for the North East.
Anasuya Ganguly Biological Sciences	Testing novel and existing materials for manufacturing Tissue Engineered Heart Valves (TEHVs)	Rs.15,00,000, ABG
Raghu Nath Behera, Dept. of Chemistry	Study of Effective Interactions in Charged Colloidal Suspensions	10 lakhs ; Council of Scientific & Industrial Research (CSIR), India
Rabi Narayan Panda Chemistry	synthesis and characterization of binary and ternary transition metal nitrides.	19.5 lakhs DST
Prasanta Kumar Das Physics	Aspect of some astrophysical systems like supernovae and neutron stars in the light of new physics	DAE, BRNS. Rs. 17.51 lakhs
Department of Chemical Engineering Rs.75 lakhs DST FIST	—	Rs.75 lakhs DST FIST

consultancy

Under the initiatives of the Department of Chemical Engineering, an MOU between BITS Pilani K K Birla Goa campus and Zuari Industries Limited has been signed for offering consultancy and training to the Plant Personnel on a continuous basis for 3 years for Rs. 15,00,000/- @Rs.5,00,000/- per annum.

Public Works Department, Govt of Goa in association with Dr.Michel Torrijos, INRA France supported by French Embassy in India and Public Works Department, Goa during October 11 – 13, 2011.

Dr. SrikanthMutnuri conducted a Shortcourse on WASTEWATER TREATMENT organized for



ATION 2011



Details of Seed Grant(Funded by BITS Pilani)

Name of Principal Investigator	Department	Title of the project	Sanctioned Amount
Dr. Dibakar Chakrabarty	Biological Sciences	Studies on anticoagulant toxins and disintegrins from Indian snake venom	13.35 lakhs
Dr. Angshuman Sarkar	Biological Sciences	Effect of cadmium toxicity on human neural cells and predicts a potential candidate for recovering from cadmium stress	11.10 lakhs
Dr. Prasanta Kumar Das	Physics	Probing space-time noncommutativity at high energy experiments	3.8 lakhs

Details of Research Initiation Grant(Funded by BITS Pilani)

Name of Principal Investigator & Co- PI	Department	Title of the project	Sanctioned Amount
Dr.Saroj Sundar Baral	Chemical Engineering	Studies on Separation and purification of rare earth metals from red mud/used catalyst	2,00,000
Dr. Hemantha Kumar Mr. Mandar Ashok Gupte	Mechanical Engineering	Design, Fabrication and Characterization of Magneto-Rheological (MR) Dampers for Industrial Applications	2,00,000
Dr. Sachin D. Waigaonkar	Mechanical Engineering	Experimental Investigations of Rotational Moulding Process Using Nano-Scale Structuring	2,00,000
Dr. Lucy J. Gudino	CS & IS	Energy Efficient Spatially Interpolated Beamformer for Wireless Sensor Network	2,00,000
Dr. Sumit Biswas	Biological Sciences	Expression, Purification and Characterization of GGEEF protein of Vibrio	2,00,000
Dr. Vijayashree Nayak	Biological sciences	An Attempt to Develop A Novel 3D Scaffold for Tissue Engineering and Biomedical Applications	2,00,000

Name of Principal Investigator & Co- PI	Department	Title of the project	Sanctioned Amount
Dr. Sujit Kumar Ghosh	Chemistry	Photosensitizing drugs in model membrane	2,00,000
Dr. Amit Setia	Mathematics	Mathematical modeling and simulation of crack in smart materials	2,00,000
Dr. Chandradew Sharma	Physics	Searching for new physics beyond the standard model	2,00,000
Dr. Ram Shankar Patel	Physics	Spin transport and manipulation in silicon at room temperature	2,00,000
Dr. Tarun Kumar Jha	Physics	Detectable Continuous Gravitational Waves (CWG) from Rapidly Rotating Neutron Stars	1,90,000
Dr. Teny Theresa John	Physics	Photoluminescence studies on Mn-doped ZnO nanoparticles	2,00,000
Dr. Vijayashree Nayak	Biological sciences	An Attempt to Develop A Novel 3D Scaffold for Tissue Engineering and Biomedical Applications	2,00,000
Dr. Shikha Sahai	Humanities and Management	Developing and Evaluating the Effectiveness of a Training Programme on Decision Making Using Simulation and Scenario Based Approach	2,00,000

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
Nitin Sharma	EEE and E&I	Reviewed papers for: IEEE TEC, Springer Wireless Personal Communications, Springer's Frontiers of Computer Sciences in China, Elsevier's Computers & Electrical Engineering, Elsevier's Information Sciences
Utpal Roy	Biological Sciences	Reviewed manuscripts for the following international journals: 1. African Journal of Microbiology Research 2. Journal of Food Science and Technology 3. Journal of Biomedical Research 4. Advance in Microbiology 5. Journal of medicine and medical sciences
Srikanth Mutnuri	Biological Sciences	Reviewed manuscripts for International Journal of Environmental Science and Technology, Bioresource Technology and Journal of Hazardous Materials
Dr. Narendra Nath Ghosh	Chemistry	Member of the editorial board of the international journal "Chemical Sensors" ; reviewed scientific papers for the journal of (i) Journal of the American Ceramic Society, (ii) Physica B, (iii) Journal of Hazardous Materials (iv) Microporous and Mesoporous Materials (v) Catalysis Communications.
Jayadevan.K.P.	Chemistry	Reviewed two research papers in the journal 'Thin Solid Films' and 'Surface Coatings and Technology'.
Anil Kumar Pundir	Mathematics	Reviewed two papers for the the journals of International Journal of Computer Mathematics and International Journal of "Applied Mathematics and Computation"
Debasis Patnaik	Economics	Journal of Manpower Planning, New Delhi, Back office of Indian Planning Commission
Aswini Kumar Mishra	Economics	Reviewed a paper entitled "Rural Widows and Existing Social Security Schemes: A Case Study from Rajasthan" for Development in Practice, a peer reviewed journal published by Routledge.
Meenakshi Raman	Humanities and Management	Reviewed and copy edited seven papers on Management for AIMS International Journal of Management

caring beyond our walls

International Coastal Cleanup effort

The annual *International Coastal Cleanup* effort organized in collaboration with the US-based NGO *Ocean Conservancy and Indian Maritime Foundation*, mobilizes youth globally to remove trash and debris from the world's beaches and waterways, identify the sources of that debris, and change the behaviors that allow it to reach the ocean in the first place. Around 100 students of the campus under the leadership of Rahul Rupani participated actively in this movement to clean up Majorda beach which is currently suffering from high levels of garbage and trash.

Blood Donation Camp

A Blood Donation Camp was organized in the campus by NirmaanGoa , with the support of Campus Medical Centre, in collaboration with Goa Medical College. The enthusiasm shown by the BITSian community was laudable and a total of 243 units of blood samples were collected .

Blood Donation camp at Students Activity Centre



Joy of Giving Week

The Joy of Giving Week is India's "festival of giving"! Launched in 2009, the festival is celebrated annually, in the week including Gandhi Jayanti, bringing together Indians from all walks of life to give their time, money, resources or skills back to society- by creating or participating in "events" of their choice. Nirmaan-Goa celebrated the Joy Of Giving Week, with the entire campus partaking in this event with uncompromising spirit and enthusiasm. The various events organized include, the Donation Drive, Meal of Joy, Visits to Old-age homes and orphanages and performances in the auditorium for children.

Meal of Joy at the Joy of Giving Week



Cultural Program at Joy of Giving Week



MATRIX

MATRIX (Mind And Thought Radical Information Exchange), a forum for bibliophiles organized a series of events during the semester as tabled below:

EVENTS	DATE	AUTHOR/DIRECTOR	PANELISTS
Lokpal	25-Aug	—	OPEN DISCUSSION
Touchstone (magazine)	1-Sep	—	—
Short Film Festival Day and Night, Black Button, 10 minutes, If God was a DJ	2-Sep	—	OPEN DISCUSSION
Writing contest	28-Sep	—	For students
To kill a mockingbird	5-Oct	Harper Lee	ANSHULI AND KARTHIK
Pros and cons of charity (in association with Nirmaan)	11-Oct	—	OPEN DISCUSSION
A Brief History of Time (in association with Astronomy Club)	9-Nov	Stephen Hawking	RACHIT KULSHRESHTHA
Blood Diamond	14-Nov	Edward Zwick	TRISHI MEHTA and RIYA RAY

creative zone

Waves 2011

Perhaps the most difficult feat of all is to match up to or even outdo the success of one's predecessors. But the Waves Coordination Committee of 2011 certainly pulled it off. Having started more than 8 months in advance, Waves 2011 was a great hit, with remarkable participation.

This time, Waves had many 'firsts', with a lot of changes and additions for the better. Bangalore based band, 'Agam', recorded the official Waves theme song which was played to the audience for the first time during the Waves inauguration. Inaugurating the festival, Padmasri Smt. Ananda Shankar Jayant inspired the students by her own story as a cancer survivor and encouraged them

BITS-GOA Dance Club at Waves 2011



to take up challenges in their life with determination. After the cultural programme presented by the various clubs of the campus the audience witnessed a performance by 'Raeth', a Pakistani band with fans across the subcontinent. Waves 2011's very own mascot, 'Papple the Octopus' which was unveiled at the inauguration along with the theme for this year's edition being "Fusion-Pure Milavat" signifying a blend of all things good.

Probably the biggest change to arrive at Waves' doorstep this year was Sea Rock. This year, the Sea Rock eliminations were held in metros like Delhi, Pune and Bangalore, with local bands from each city competing. As a result, the crop of bands that were finally selected like 'Versus', 'Heartbeats', 'Black Widow' etc delivered knockout performances during the finale in Goa, with Delhi based band, 'Soul'd Out', winning the top prize of a recording contract with a major recording studio.

Soul'd Out Performing at Waves 2011



As always, the first day set the tone for the rest of the fest. Plenty of impromptu games were organised by the Department of Creative Works along with some fun filled workshops like Slip Soccer, Mocktail making Workshop, Fashion photography Workshop and a Canvas Shoe Painting Workshop'. The crowd wrapped up their day's actions, swaying to the tunes of DJ Siddharth.

The Fashion Parade ensured a full house in the auditorium as each college's models took to the stage and presented their wares, conforming to a theme selected by them.

Fashion Club at Waves 2011



Ultimately, it was Jai Hind College from Mumbai that walked away with the top prize. 'Natyajali'. VNIT Nagpur won hands down with their dancers moving in perfect rhythm and syncopation. Events like the 'Waves Debate' and the 'Waves Open Quiz', continued to be the top draw as usual. After its immense popularity last year, the 'Waves Lounge' reappeared this year, with 'Theobroma', an extremely popular Mumbai based bakery setting up shop there. In spite of all this, what really stole the show was the Nights with acts like Agam, a Bangalore band made up entirely of Pilani alumni, Something Relevant and Thermal and a Quarter bringing the house down on Day 2.

Agam Performing on Day 2 of Waves



As a grand finale, Kailesh Kher, the man who shot to fame with "Allah ke Bande", closed Waves with an absolutely mind-blowing performance on Day 3. Even though he has been described as a youth icon, he managed to charm some of the teachers in the 3000 strong crowd into letting their hair down and dancing to the music. After his performance, it was announced that the overall winner was Christ College from Bangalore. As far as cultural fests go, this edition of Waves was by far the best with exciting new events and soul stirring performances.

Kailash Kher at Waves



snapshots

Waves



Onam cultural



Dramatics club



Mime club



Durga puja



Ganesh chaturthi cultural



Zephyr 2011

Zephyr is the campus Inter hostel Cultural, Sports and Technical Festival which was started in 2005-06 academic year. The word 'Zephyr' means cool wind which blows during winter season. It was started as a cultural festival in 2006. From 2008-09 academic year Sports and Technical sections were included. Three types of events GOLD, SILVER, BRONZE with different set of points for First, Second and Third positions depending on the difficulty and Group dynamics involved were conducted. The Events of Zephyr are categorized into Music, Dance, Drama, Literary, Art, Sports, Technical, Miscellaneous and Hostel Events. The major events of Zephyr are Group Song, Group Dance, Dance Duo, Fashion Parade, Mr. and

Tug of War at Zephyr 2011



Miss Zephyr and Hostel Video. The hostel with the maximum points wins Zephyr. AH-4 were the proud winners of Zephyr 2011 while AH-7 were the runners up.

introducing new faculty

Name	Designation	Discipline	RESEARCH AREA
Dr. Ranjit S Patil	Assistant Professor	Mechanical Engineering	Renewable Energy, Modeling and Simulation using CFD, Circulating Fluidized Bed (CFB Boiler), Microtubes etc
Dr. Indranil De	Assistant Professor	Economics	Development Economics, Applied Econometrics
Mr. Swagat Kishor Mishra	Lecturer	Economics	Environment Economics and Carbon market research
Dr. K Chandrashekeran	Assistant Professor	Mathematics	Linear Complementarity problems
Mr. Gauranga Charan Samanta	Visiting Faculty	Mathematics	Theory of Relativity and cosmology
Dr. Geetha Varier	Visiting Faculty	Physics	Laser Spectroscopy and microscopy
Dr. Dhishna P	Assistant Professor	Humanities and Management	Travel writing and Cultural Studies

snapshots

Dr. P. Chidambaram's Visit



Independence day



Dandiya night



Music night



Dance club



Chirstmas Celebrations



editorial team



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

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