Semester-II notes 2014-15

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K K Birla Goa Campus



innovate

#### from the

## editor

Change of the guard marked the Second Semester of 2014-15 at the BITS Pilani, K K Birla Goa Campus. Prof. Sasikumar Punnekatt took over charge as the Director from Prof. K.E. Raman on 25th February 2015. Earlier in the semester, Prof. Ashwin Srinivasan joined the campus as Deputy Director on 29th January 2015.

The semester also witnessed the visits of eminent persons such as Prof. Jean-Marie LEHN (Nobel Laureate), H.E. Mr. François Richier, French Ambassador and many reputed academicians and researchers who enriched and inspired students and faculty members through insightful interactions.

As a part of the university initiative two new centers were established during the semester: Teaching Learning Centre (TLC) and Centre for Innovation, Incubation and Entrepreneurship (CIIE). These centers would contribute to enriching the academic environment and enhancing the entrepreneurial spirit among the students.

Prof. Sasikumar Punnekkatt taking charge from Prof. K.E. Raman



Faculty members from various departments visited countries abroad in connection with their research endeavors and also delivered invited talks at various educational institutions. They published their research papers in national and international journals and acted as editors, reviewers, member of jury, etc., on invitation. Such invitations bring forth the recognition received by the faculty.

Quark 2015 and Spree 2015, the annual techno management festival and the sports festival received an overwhelming response from the student community across the nation. Conferences and workshops organized by the departments not only enriched the faculty and students but also expanded the network of contacts.

With a number of distinguished visitors, insightful events, faculty and student achievements, etc., the campus has been marching further towards making it the most desirable academic and research destination for students, faculty and staff.

As you are aware, our endeavor at BITScan is to present to you all the significant happenings of each semester. We expect your active cooperation in sharing with us the necessary data so that we can cover almost all events and achievements.

**Quark'15 Inauguration** 



### Leadership Change

Prof. Sasikumar Punnekkat took over as Director, BITS Pilani, KK Birla Goa Campus on 25th February 2015. He joined as the Director and Sr. Professor (Computer Science & Information Systems). Prof. Punnekkat took charge from Prof. K. E. Raman who had over 37 years of experience at BITS Pilani in various capacities. Through the telepresence facility, Vice Chancellor Prof. B. N. Jain joined from Pilani on the occasion of formal handing over of the charge.

Prof. Sasikumar Punnekkat holds a D.Phil. in Computer Science (1997) from University of York, UK and has over 30 years rich experience in academics, research & administration. His research & development experience as a Scientist at Indian Space Research Organisation (1984-2004) and international academic experience as Professor of Dependable Software Engineering at School of Innovation, Design & Engineering, Malardalen University, Sweden (since 2007) are of noteworthy mention.

Prof. Sasikumar Punnekkat has numerous awards and honours to his credit. An excellent academician & researcher, Prof. Sasikumar Punnekkat has authored books, book chapters and over 100 research articles, undertaken significant R&D projects, received the prestigious commonwealth scholarship award and occupied scientific / administrative lead roles in various large European and Swedish research and educational projects.

Prof. K E Raman introduced the new Director to the senior officials of the campus and also briefed him on the ongoing activities. Prof. Sasikumar praised Prof. Raman and the BITS-Goa team for their efforts in building the campus, and subsequently interacted with the officials.

While taking over as Director and Sr. Professor of BITS Pilani, K K Birla Goa campus, Prof. Sasikumar Punnekkat said "BITS is known for its excellence in undergraduate education, and envisions to be a top ranked institution both nationally and internationally by 2020. I feel honoured to be chosen to lead BITS-Goa and aim to strengthen its research profile, industrial collaborations and international networks synergistically with its educational programs in the coming years"

## Visit by Prof. Jean-Marie LEHN (Nobel Laureate), ISIS, Université de Strasbourg, France

A lecture and an interactive session by Prof. Jean-Marie Lehn, Institute of Supramolecular Science and Engineering, University Louis Pasteur of Strasbourg was held at BITS Pilani, K K Birla Goa Campus on 21st February 2015. Professor Jean-Marie Lehn, together with Charles J. Pedersen and Donald J. Cram, was awarded the Nobel Prize for Chemistry in 1987 for their development and use of molecules with structure-specific interactions of high selectivity. This chemical basis of "molecular recognition" also plays a fundamental role in biological processes.

At BITS Goa Prof. Lehn interacted with the Director, Prof.K.E.Raman, Deputy Director, Prof. Ashwin Srinivasan, Dean SRCD, Prof. Sunil Bhand, Dean Administration, Prof. D. M. Kulkarni and Faculty of the Department of Chemistry. Prof. R.N Behera, HOD, Chemistry gave an overview of the Research projects of the Department.

Prof. Lehn in his lecture "From Matter to Life: Chemistry? Chemistry!" spoke about the evolution of the universe leading to more and more complex matter through self-organization, up to living and thinking matter. Animate as well as inanimate matter, living organisms as well as materials, are formed of molecules and of the organized entities resulting from the interaction of molecules with each other. He says that it is Chemistry that provides the bridge between the molecules of inanimate matter and the highly complex molecular architectures and systems which make up living organisms.

Molecular chemistry has developed a very powerful set of methods for constructing ever more complex molecules. Supramolecular chemistry seeks to control the formation of molecular assemblies by means of the interactions between the partners.

The talk was followed by an interactive session with the faculty and students.



Prof. Jean Marie Lehn

#### Visit of French Ambassador, H.E. Mr. François Richier to BITS Pilani, K K Birla Goa Campus

The 21st Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change (UNFCCC) will take place in Paris in December this year. An effective and equitable international agreement will be critical for reducing greenhouse gas emissions to limit global temperature rise to 2 degree Celsius and for supporting adaptation to climate impacts. France, as the host and chair of the COP21 is committed to the role of an impartial facilitator for forging an ambitious agreement at COP21.

In this context, Ambassador of France, H.E. Mr. François Richier addressed several issues related to the global fight against climate change and the role of France as chair of the upcoming conference. His talk was followed by a discussion on alternate energy sources, importance of technology transfer and cooperation between countries to achieving a cleaner world, and dropping CO2 emission levels. A question and answer session soon followed with thoughts on government intervention, nuclear energy as a resource, and the role of diplomacy in climate change were all debated and discussed. Overall, it was an enlightening afternoon with all parties leaving with a few stirring ideas and thoughts on how we can make this world a cleaner, better place.

The Ambassador also interacted with the Director, Prof. Sasikumar and the key officials of the Campus. He was open to the idea of academic and research collaboration between India and France and said that presently about 3150 Indian students are in France while 1600 French students are in India. He also highlighted the schemes for Indian students graduating from French schools, wherein students will be given a 5 year Visa so that they benefit beyond their educational period. The Visit was coordinated by Prof. Srikanth Mutnuri, Associate Dean, International Programmes and Collaborations Division.

H.E. Mr. Richier with the Director and Prof. K.E. Raman



#### **Teaching Learning Centre(TLC)**

The Institute has set up Teaching Learning Centre (TLC). It will be involved in improving the overall teaching - learning environment at BITS Pilani and headed by a Professor-in-charge, who will be supported by Faculty-in-charges from all the four campuses of BITS Pilani. There will be a few nucleus members in each campus to support the Faculty-in-charge. The Centre will carry out research on innovative teaching pedagogy, collection of good practices of teaching learning from all over the world and disseminate among the faculty, conduct intensive teaching workshops and invite experts from India and abroad to deliver lectures on relevant topics.

The following faculty members have been appointed as Professor In-charge, Faculty In-charges and Nucleus members.

Professor In-charge (University wide): Prof. R.R. Mishra, Pilani Campus

Faculty In-charge (Campus wise):

Pilani: Prof. Rajesh Mehrotra Dubai: Prof. R Udayakumar

K K Birla Goa: Dr. Varinder Singh Hyderabad: Prof. PK Thiruvikraman Nucleus Members (Campus wise):

Pilani: Prof. Sudeept Mohan, Dr. Navneet Gupta, Dr. Sundaresan Raman, Dr. Hari Nair

Dubai: Prof. Sankaram M V, Dr. Swarnalatha R, Dr. Geetha Kannan, Dr. Madiajagan M, Dr. Lajwanti Kishnani

K K Birla Goa Campus: Mr. Amol Deshpande, Dr. Reena Cheruvalath, Dr. Anita Agrawal, Dr. Manoj Kumar Pandey

Hyderabad: Prof. Amit Kumar Gupta, Dr. Aravinda Raghavan, Dr. Aruna Malapati, Prof. N Rajesh

### Centre for Innovation, Incubation and Entrepreunership (CIIE)

On June 1, 2015 the Institute set up the Center for Innovation, Incubation & Entrepreneurship (CIIE) as an integrated structure for academic and incubation activities related to entrepreneurship in BITS Pilani. CIIE is led by Prof Srinivas Krishnaswamy, Professor Incharge . He is supported by the Faculty Incharges in each campus: Dr. Jyoti Tikoria at Pilani, Prof. Mridula Goel at Goa, Dr. Chandu Parimi at Hyderabad and Prof. Srinivasa Rao at Dubai. CIIE aims to promote innovation led entrepreneurship in BITS Pilani campuses. The key focus areas for the Center are Intellectual Property development, Technology Transfer and Commercialization and fostering Start ups. CIIE proposes to work closely with alumni and industry to provide support to BITS students and faculty as they innovate and create products and build start ups.

### a confluence of ideas

## academia

seminars / conferences / workshops / training programmes

## Association for Computing Machinery (ACM) India Event 2015

The Annual three day ACM India Event 2015 was held at BITS Pilani, K K Birla Goa Campus during 5 - 7 February 2015. The Keynote lecture was delivered by Professor John E. Hopcroft (1986 A. M. Turing award winner) on the 'Future of Computer Science'. ACM Goa Professional Chapter organized the event with BITS Pilani, K K Birla Goa Campus as its co-hosts. The Annual flagship event was a meeting of ACM India and ACM India -W members as well as ACM student chapter members. The event was jointly organized by Goa University and BITS Goa. The 9th Inter-Research-Institute Student Seminar in Computer Science (IRISS) for the benefit of budding researchers and PhD scholars in Computer Science was organized on 5th Feb 2015. This was followed by main event on 6th Feb 2015. ACM India launched Special Interest Group for Computer Science Education SIGCSE and organized a special session for Computer Science Educators.

#### IACLALS (Indian Association of Commonwealth Literature and Language Studies) Annual Conference on Space, Place, Travel, Displacement, Exile

Padma Shri Dr. Maria Aurora Couto in her keynote address drew a broad overview of Goa's history punctuated with vignettes from personal experience. She traversed Goa's late colonial and post-colonial histories and drew out the resultant tensions of these periods for Goan identity, politics, economy and environment. She was the Chief Guest at the IACLAL Annual Conference 2015 organized by the Department of Humanities and Social Sciences of BITS Pilani, K K Birla Goa Campus in association with IACLALS during 12-14 February 2015. ICSSR (Indian Council of Social Science Research) New Delhi, VMSIIHE (VM Salgaocar International Institute of Hospitality Education) Goa and AXIS Bank, Vasco da Gama branch were the associate sponsors for the event.

Prof. Ashwin Srinivasan, Deputy Director of the Campus welcomed the gathering while Prof. Meenakshi Raman, Head of the Department and the Convener gave a brief overview of her department and also of the conference. Prof. Mohd. Asaduddin and Prof. GJV Prasad from IACLALS presented a glimpse of the activities of the association and discussed the theme of the conference. The inaugural function concluded with the vote of thanks by the organizing secretary of the conference, Dr. NilakDatta, Assistant Professor in the Department and Dr. Rina Ramdev, Secretary of IACLALS.

About 80 participants from India, Sri Lanka, Nepal, France, Spain, UK, South Africa and USA, participated and presented papers on various authors and themes related to the conference in various sessions. Dr. Elgar Noronha, High Court advocate and Shri. Damodar Mauzo, eminent writer both from Goa delivered a plenary talk and the valedictory address respectively.



#### **Department Day**

The Department of Mathematics, BITS Pilani K K Birla Goa Campus celebrated its second Department Day on 12, April 2015. As a part of this event, students conducted several competitions for the higher secondary school children in which around 120 students of 9th-12th grade, across the various schools/colleges in Goa participated. Prof. Sasikumar Punnekatt, Director, distributed the prizes and gave an inspirational address to the participants on mathematics and mathematicians. MATHLETS association members organized the event under the guidance of Prof. Tarkeshwar Singh.

## Advanced Level Training Program on Differential Equations (ATPDE-2015)

The Department of Mathematics in collaboration with National Programme on Differential Equations: Theory, Computation and Applications (NPDE-TCA), IIT Bombay, organized a 21-day national level workshop on "Advanced Level Training Program on Differential Equations" during May 25, -June 14, 2015 with the theme "computational partial differential equations". Eminent professors from various reputed institutions delivered lectures: Prof. Amiya K Pani, IIT Bombay; Prof. M. Vanninathan, TIFR-CAM, Bengaluru (Distribution Theory -5 Lectures); Prof. Adimurthy, TIFR-CAM, Bengaluru (Elliptic PDE-6 Lectures); Prof. N. Sabu, IIST, Trivandrum (Sobolev spaces-5 Lectures); Prof. A. S. Vasudeva Murthy, TIFR-CAM, Bengaluru (Parabolic PDE-5 Lectures); Prof. PS Datti, TIFR-CAM, Bengaluru (Hyperbolic egns and systems; classical and semigroup methods, 4-Lectures); Prof. Veerappa Gowda, TIFR-CAM, Bengaluru (Theory of Conservation Laws-5 Lectures); Prof. A. K. Nandakumaran, IISc Bengaluru (A short Introduction to Optimization, Calculus of Variation and Optimal Control-4 Lectures); Prof. K R Arun Kumar, IISER, Trivandrum (Numerics for Conservation Laws-3 Lectures); Prof. M C Joshi, IIT Gandhinagar (Solvability Analysis, Variational Analysis and Control, 5-Lectures); Prof. Neela Natarajan, IIT Bombay (FEM for optimal control problems, 5-Lectures) ; Prof. Tirupathi Gudi , IISc Bengaluru (Element Construction, approximation theory and DGM)

As many as 40 students, research scholars from different parts of India including 8 from BITS Pilani participated. There were tutorial sessions all through the workshop in CC lab. Convened by Dr Dhanumjaya and coordinated by Dr.Anil Kumar, the workshop was the first of its kind form many participants and had received their whole hearted appreciation.

#### Workshop on Advanced Programming Techniques in MATLAB (24th July 2015)

The workshop was jointly organized by EEE&I, Physics, Mechanical and Maths departments. The session What's new in MATLAB for R2012b through R2015a? and two other sessions on Advanced Programming Techniques in MATLAB were delivered by Dr. Loren Shure, a principal MATLAB developer who has worked at MathWorks for nearly 25 years and has coauthored several MathWorks products in addition to adding core functionality to MATLAB. Dr. Loren currently works on the design of the MATLAB language. The workshop immensely benefitted the faculty and students.

### **TEDxBITSGoa-2015**

TEDxBITSGoa, India's first university-hosted, student-run TEDx event is also the longest-running TEDx event in the country. It hosted its annual conference on the 25th of January. The theme chosen for the event for 'Pushing a Pull Door'. The event was organized with the concept that breaking away from the reigns of societal pressures, and working in ways deemed unconventional is the key to revolutionize society. The event showcased exemplary speakers, who having come from ordinary backgrounds, challenged the norms society set for them. Any and all social constructs rang hollow for them, and all they could think about was this new, exciting thing they had thought of. And their ideas are the key to being alive, and to move towards leading a life of fulfillment and sustainability.

Excerpts from the talks of some speakers are given below:

Clea Chandmal, is a passionate believer; practitioner and teacher of permaculture, a style of creating sustainable habitats that mimic nature's patterns and do not burden the earth. Her talk was centered on the sustainability of this style of cultivation. Her own home and farm are modeled after her ideas.

Mani Vajipeyajula, is the founder of Banyan Nation, an organization that aims to transform the solid waste management landscape in India through technological innovation, better practices and grassroot activism. His practicality and the results that his organization achieved gave his speech a lot of recognition and credibility.

Adm. Arun Prakash, has served as Chief of Naval Staff of the Indian Navy. His persona was impressive and commanding. He spoke about reviving the former maritime glory of India, the importance of it, and the pragmatic way to go about it.

**Subodh Kerkar** is a visual artist. Having experimented with different kinds of media for over 20 years now, his presentation consisted of images of his works as an installation artist. He spoke about his inspirations, the thought process that goes behind each installation. His talk was received very well by the audience.

Rohit Gupta introduced himself as a science historian. He spoke about what it takes to fuel a scientific revolution with a historical backdrop. Having an audience of only science-oriented students, everyone was very impressed with the technical depth his speech had.

Monica Dogra's performance was the last, and it was the perfect finish for the event. She sang one of her most popular numbers, and had the audience thoroughly appreciating it. She spoke about her struggle as an artist in India, where all art in compartmentalized, and the thought behind her T.V. show, The Dewarists.

There were a total of 9 talks, and a performance by the Goan band, Grace. Grace, played their acoustic covers of popular pop music, and had everyone clicking their fingers to the rhythms' of their music.

**TEDx BITSGoa Student Committee** 



### Workshop on effective teaching and learning

Teaching Learning Centres (TLC) have been set up at the four campuses at Pilani, Dubai, Goa and Hyderabad to carry out research on innovative teaching pedagogy, collection of good practices of teaching learning and disseminate such practices among the faculty, conduct intensive teaching workshops and invite experts from India and abroad to deliver lectures on relevant topics. In this regard the Quality Assurance and Assessment Imperative team under BITS Pilani's Mission 2015 conducted a workshop on effective teaching and learning during 18th-20th July, 2015 at KK Birla Goa Campus wherein faculty members associated with newly constituted Teaching Learning Centre's from all the campuses participated. The resource persons for this workshop included Prof. Lakshminarayanan Samavedam, NUS Singapore, Prof. Daphne Pan, NUS Singapore, Dr. Rajendra Joshi, Mission 10X Wipro, Bangalore and Ms. Kiruthika Ragupathi, NUS, Singapore along with Prof. A. K. Sarkar, Director, BITS Pilani, Pilani Campus as well as Prof. K. E. Raman, Ex. Director, BITS Pilani, KK Birla Goa Campus.

## distinguished lectures

'Speaker	Affiliation	Topic	Date
Prof. Richard Albert Zalik	Professor, Department of Mathematics and Statistics, Auburn University, USA.	On the Nonlinear Jeffcott Equations	05- January- 2015
Prof. Lakshminarayan Samavedham	National University of Singapore.	Facilitating Student Learning for the 21 st Century: Some Recent Teaching and Learning Initiatives at NUS	06- January- 2015
Prof. Sudhir R Ghorpade,	Department of Mathematics, IIT Bombay	Polynomial Systems Over Finite Fields and Linear Error- Correcting Codes	17- January-2015
Prof. Peter Beelen	Head, Department of Applied Mathematics and Computer Science, Technical University of Denmark	An Introduction to the Decoding of Reed-Solomon Codes	17- January- 2015
Mr.Atul Singh	Founder and Editor-in- chief of Fair Observer	Socratic Seminar: The Moral Limits of Markets	27- January- 2015
Dr. S.V.Srinivas	Professor, Azim Premji University	(i) Culture and Rights (ii)Studying Culture	28 and 29 –January- 2015
Dr.Munmun Jha	Professor, HSS, IIT Kanpur	(i)Religious traditions and Human rights (ii)Gandhi, Ambedkar and Nehru in human Rights framework	29 and 30- January- 2015
Prof Umesh Bellur,	Dept of CSE IIT Bombay	"Research Problems in Virtualized Data Centers"	29-Jan-2015
Prof. Nasir Memon	Director, ISIS Lab, NY Poly University, New York	"Digital Image Forensics"	01-Feb- 2015

Prof. Venkata Sundarananda Putcha  Prof. Robert Curl	CR Rao Advanced Institute of Mathematics, Statistics and Computer Science, University of Hyderabad Campus.  Rice University who won Noble prize in chemistry in 1996 for the discovery of nanomaterial buckminsterfullerene	Discrete linear Sylvester repetitive process  Nanomaterial Buckminster Fullerene	05 –Feb- 2015 05-Feb -2015
Dr. John C. Mather	NASA, 2006 Nobel Laureate	Cosmic Background Explorer Satellite (COBE)	06-Feb- 2015
Dr. Raghav Kulkarni,	Postdoctoral fellow, Center for Quantum Technology, National University of Singapore.	Evasiveness and the distribution of prime numbers	09 –Feb- 2015
Dr Shrikant S. Panwalkar	Associate Professor  The Johns Hopkins Carey Business School, Baltimore, USA	Technology Management	11 –Feb- 2015
Professor Ivo Leito	University of Tartu, Estonia.	SUPERACID DERIVATIVES IN YOUR POCKET?	12- Feb- 2015
Dr Satish Srirama,	Associate Professor at University of Tartu, Estonia	'MOBILE & CLOUD COMPUTING, From Exploiting Cloud in Science to Enabling Internet of Things'.	12- Feb- 2015
Mr. Aryan Cooper	Certified Trainer and a black belt in Lean Sigma process.	Lean Six Sigma	16- Feb- 2015

Prof. Graeme Fairweather	Mathematical Reviews, American Mathematical Society, Ann Arbor, Michigan, U.S.A.	Ethical and Responsible Conduct of Research	20- Feb- 2015
Nobel Laureate Prof. Dr. Jean-Marie Lehn,	Université de Strasbourg, France	From Matter to Life: Chemistry ? Chemistry !	21- Feb- 2015
Dr. P.J.Lavakare	Senior Adviser to the Institute of International Education (IIE, USA) in India	Students on the move	24- Feb- 2015
Prof. Barbara Harriss- White	Senior Research Fellow, Area Studies; Coordinator, South Asian Research Cluster, Oxford	Globalisation, Development and the Metabolic Rift.	28 –Feb- 2015
Prof. Jia Haitao	Prof. Dept. of Political Science & International Relations, Jinan University, Shandong Province, China	Sino-Indian Relations: Implications for South Asia	11-Feb-2015
Prof. Korneel Rabaey	Laboratory of Microbial Ecology and Technology, Faculty of Bioscience Engineering, Ghent University	Microbe meets electricity: electron fuelled bioremediation and bio production	04- Mar- 2015
Prof. Pranab Mukhopadhyay	Department of Economics, Goa University	Environment and Development in South Asia: A broad overview	05- Mar- 2015
Dr Dmimier S Dimitrov	Senior Scientist from Laboratory of Experimental Immunology, Cancer and Inflammation Program, Center for Cancer Research, NIH.	Human monoclonal antibodies against cancer, HIV-1 and emerging viruses	07- Mar-2015

Rounak Dubey	Corporate legal Cell, Aditya Birla Managament Corp. Pvt.Ltd.	Intellectual property awareness	09- Mar-2015
Prof. C. T. Aravindakumar,	Mahatma Gandhi University, Kerala, INDIA	Advanced Oxidation Processes for the degradation of Environmental Pollutants	01- April- 2015
Dr. Amritjit Singh to deliver a talk titled,	Langston Hughes Professor of English, Ohio University, USA	The 'Frontier' and the American Imagination: A Retrospective View	16-April-2015
Prof. S. Arumugam	Director, National Center for Advanced Research in Discrete Mathematics, Kalasalingam University, Tamil Nadu	Cellular Manufacturing Problem - A Graph Theoretic Approach	17-April-2015
Prof. Jean Louis Marty	University of Perpignan, France	Aptamer based biosensors on toxin detection,	14- May- 2015
Professor Amiya Kumar Pani	Institute Chair Professor, Department of Mathematics, IIT Bombay	Scientific Computing: A New Way of Looking at Mathematics	09-June-2015
Dr. Indresh Kumar	BITS, Pilani – Pilani Campus,	Organocatalytic Cascade Strategy towards (SMNPs) Synthesis	01- July- 2015
Dr. Hemanta K. Majumdar	Director- Grade Scientist of CSIR at Indian Institute of Chemical Biology, Kolkata	Kinetoplast DNA, DNA Topoisomerases and Drug development against Leishmania parasite	26- June -2015.
Dr. Shohini Ghosh Roy	Visiting Assistant Professor, Framingham State University, Massachusetts, USA	"Nitrogen metabolism in marine phytoplanktons: evolution and controls	July-14-2015

## visits by faculty

## enriching the learning experience

### international visits

**Dr. Narendra Nath Ghosh** was invited to visit University of Leeds, UK by Professor Paul Millner for collaborative research related to DST-UKIERI project, during 09 March to 19th March 2015.

**Prof. Santonu Sarkar**, attended the 24th World Wide Web conference at Florence, Italy from May 18-22 2015 to present a paper entitled: "Discovering the Rise and Fall of Software Engineering Ideas from Scholarly Publication Data" at the BigScholar2015 workshop track of WWW2015. After the workshop, a committee was formed to make the topic of Big Scholarly data to be an important topic of research in the subsequent WWW. Microsoft research joined this group and pledged to provide the scholarly data of size nearly a terabyte for this research.

**Prof. Santonu Sarkar** 



**Prof. Raghu Nath Behera,** Dept. of Chemistry delivered an oral presentation Titled "Computational study of E...N (E = Se/Te) Intramolecular Interactions in DiarylDichalcogenides: Effect on E-E Bond Strength and Antioxidant Activity" at 4th International Conference on Research Frontiers in Chalcogen Cycle Science & Technology, Delft, The Netherlands during May 28-29, 2015.

**Dr. Amit Setia** "Numerical solution of Cauchy singular integral equation with an application to a crack problem" and "Numerical solution of fourth order fractional integrodifferential equation by using Legendre wavelets" for 30 minute talk in the international conference "Seventh International Conference on Dynamic Systems and Applications & Fifth International Conference on Neural, Parallel, and Scientific Computations "held during May 27-30, 2015 at Atlanta, Georgia, USA.

**Mr. Solano Da Silva**, Dept.of HSS was invited to be an external expert on a project called the Language of the Becoming City initiated by the Royal Institute of Art, Stockholm. As part of fieldwork for this project he visited

Stockholm and Södertälje, Sweden from during 27th May - 6th June. The project reflects on urban transformations across four urban spaces: Södertälje, Sweden; Goa, India; Cape Town, South Africa and Rio, Brazil.

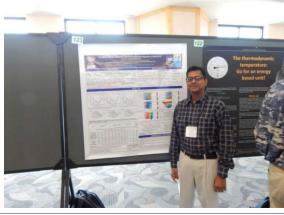
Mr. Solano Da Silva



**Dr. Rajendra Kumar Roul**, Dept. of CS/IS presented a paper "Extreme Learning Machines in the field of Text classification" at the 16th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2015) held at Kagwa University, Takamatsu, Japan during 1-3 June, 2015. The paper was authored by Rajendra Kumar Roul, Ashish Nanda, Virai Patel and Sanjay Kumar Sahay.

Prof. Ranjan Dey presented a paper entitled "Transport, Optical, Interfacial and Thermodynamic properties of binary and Ternary liquid Mixtures" at the 19th Symposium of Thermophysical Properties Colorado University, Boulder, Colorado, USA during 21st to 26th June, 2015. The Nineteenth Symposium of the well-established series of conferences on thermophysical properties is organized by National Institute of Standards and Technology(NIST) in association with AIChE and ASME. The Symposium is concerned with theoretical, experimental, simulation, and applied aspects of the thermophysical properties of gases, liquids, and solids, including biological systems. The Conference is a triennial event and scientist and researchers from 50 countries participated in the Symposium.

Dr. Ranjan Dey



## invited lectures by faculty

**Dr. Subhadeep Banerjee**, Dept. of Chemistry, delivered an invited talk Synthesis and photophysical characterization of quasi push-pull dycyanodibenzodioxins and their anti-tumor activity against glioma cell line C6 on 9th January 2015 at the UGC sponsored National Seminar titled Recent and Emerging Advances in Chemical Science REACS-2015 organized by All Saint's College Thiruvananthapuram on 8th and 9th January 2015.

**Dr. P. Danumjaya**, Dept.of Mathematics delivered an invited talk "Orthogonal Cubic Spline Collocation Methods for one-dimensional Helmholtz equation with discontinuous data" at the UGC Sponsored National Level Conference on Applied Mathematics: Numerical Analysis, Algebra and Computational Mathematics held at Gudleppa Hallikeri Degree College, Haveri, Karnataka State during 30-31 January 2015.

**Dr. Ram Shanker Patel**, Department of Physics, delivered an Invited Talk on "Tunneling Magnetoresistance with Thin Hexagonal Boron Nitride Barriers." at the conference "Current Trends in Condensed Matter Physics" organised by National Institute of Science Education and Research (NISER), Bhubaneswar, February 19-22, 2015.

**Dr. K. A. Geetha**, Dept. of HSS delivered a talk "Asserting Identities: Marginality and Resistance in Tamil Dalit Women" in a UGC sponsored National Symposium on "Modern Feminist Voices and Visions" organised by the Department of English, SDNB Vaishnav college, Chennai on 6th February 2015. Dr. Geetha spoke on "Caste and Gender Interlocking Oppression" in a UGC sponsored National conference on "The Politics of Gender in Literature and Language" organised by department of English, Vimala college, Thrissur on 5th March 2015.

Dr. K.A. Geetha



**Dr. Rayson K Alex**, Dept. of HSS, conducted workshops on Ecofilm Appreciation and Theory and Application of Ecocriticism at Carmel College, Mala, Thrissur, Kerala on 6th and 7th March 2015 for which 26 and 30 students and faculty members, respectively, from various institutions in Kerala participated. Dr. Alex also conducted a workshop on Critiquing Ecocinema at Rajiv Gandhi National Institute of Youth Development, Sriperumbudur, Tamil Nadu on 6th February 2015 for which 24 students and faculty members from various institutions in Tamil Nadu participated.

Dr. Rayson Alex at Carmel College



**Dr. Anil K. Pundir**, Dept. of Mathematics, delivered a series of lectures on different computational methods in the advanced level workshop on "Computational Methods for Control Problems" held at Department of Mathematics, IIST Trivandrum and Mar Ivanios College, Trivandrum during 16–21 March 2015.

**Dr. Sukanta Mondal**, Dept. of Biology, delivered an invited talk "An Interdisciplinary Approach to Biological Sciences" on 27-May-2015, at Heera College of Engineering & Technology (HCET), Panavoor, Kerala.

**Dr. Tarun Kumar Jha**, Dept of Physics, delivered an invited talk "Dark Matter Astrophysics in Neutron Stars "at the workshop on Light from the dark side of the Universe organized by BHU, Varanasi during 17 - 20 March, 2015. Dr. Jha also delivered another invited talk on "Recent Insights into the Astrophysics of Neutron Stars" at the Nuclear Physics Meet Venue, Institute of Physics, Bhubaneswar during 26 - 30 June, 2015.

Dr. Tarun Kumar Jha at BHU, Varanasi

Dr. Ranjit S. Patil, Dept. of Mechanical Engineering, delivered an invited Talk on "Research Methodologies in Engineering Sciences" at SGBIT Belagavi affiliated to Visvesvaraya Technological University Belgaum Karanataka on 13th July 2015.

Prof. Meenakshi Raman, Dept of HSS was invited as a resource person by UGC -Human Resource Development Centre of the Goa University. She conducted two sessions on "Good English for Research Reporting" on 28 July 2015.

Prof. Meenal Kowshik delivered a invited talk on 'Biosynthesis of selenium nanoparticles by haloarchaea', at the World Congress on Green Nanotechnology and its role in Sustainable Agriculture, at Sam Higginbottom Institute of Agriculture, Technology and Science, Allahabad, from, March 26-27, 2015.

Prof. Ranjan Dey, was invited to deliver a Lecture Series on Electrochemistry to M.Sc., M. Phil. and D.Phil. scholars in the Department of Chemistry at Bundelkhand University at Jhansi in May 2015.

## achievements

Dr. Ranjit S. Patil, received OPERA (Outstanding Potential Excellence in Research and Academics) Award by BITS Pilani based on Performance in Research and Academics.

Dr. Rayson K. Alex, was nominated as the Jury for the prestigious CMS Vatavaran 2015, the Environment & Wildlife Film Festival and Forum, New Delhi, The Nomination Jury selected films to be screened for the film festival. The Chairman of the Jury was the Mr. Rajendra Singh, the Nobel Prize winner for Water, 2015. Dr.Alex, was invited as an expert to organize the tiNaiEcofilm Festival (TEFF). He with other coordinators, organized two events (i) at the Rajiv Gandhi National Institute of Youth Development, Sriperumbudur, Tamil Nadu during 6-7 Feb. 2015 and (ii) at the Carmel College, Mala Thrissur, during 6th and 07th March 2015.

Dr. Debdulal Thakur was instrumental in bringing the Nobel Laureate (Peace)-2014 at BITS-Pilani, Pilani Campus on 29th January 2015. Dr. Thakur and along with one Mr. Vichar Shroff featured on a talk show telecast on 15th June 2015 at 1 pm by Gujarat Television Pvt.Ltd. The show was on Helpage India wherein the student was pursuing his PSI.

Dr.Thakur's , Thakur's Interview (bite) on curriculum development was published in the prestigious Career 360 in the article 'Decoding MBA Curriculum' by ShilpiSachdeva on 27 Feb 2015. For details refer to: http://www.bschool.careers360.com/articles/decodingmba-curriculum

Prof. Santonu Sarkar of CSIS department was awarded the prestigious Accenture Research Grant among 11 Leading Universities to Promote Greater R&D Collaboration, Accelerate Pace of Innovation - 2015 Accenture Open Innovation University Grant Program

Dr. Narendra Nath Ghosh and Prof G F Fernando (University of Birmingham, UK) have jointly received prestigious Newton Research Collaboration award from Royal Academy of Engineering, UK for conducting collaborative research in the area of Advanced Nanocomposite based Materials. Dr. Ghosh has been awarded the Outstanding Reviewer Status by the Journal "Materials Chemistry and Physics", which is an International, Interdisciplinary Journal on Science, Characterisation and Processing of Advanced Materials, published by Elsevier.

Dr.Anita Agrawal and Dr.Nitin Sharma of the Department of EEE conducted for the first time at the campus the Analog Design Contest sponsored by Texas Instruments on 11 April 2015. Around 100 students participated in the event and the winners were: Gyananshu Updhyay, Bhavan Jasni and Prajwal Padmanabh.

Dr. Anita and Dr. Nitin with the contest winners



Prof. Utpal Roy, participated in the Workshop on "Microbial Systematics: Soil to sequences" from 2nd to 12th March, 2015 at CSIR- INSTITUTE OF MICROBIAL TECHNOLOGY, Chandigarh. Gave a talk titled "Antimicrobial Activities of Wild-type Enterococcus faecium and Bacillus sp.' at the CSIR- INSTITUTE OF MICROBIAL TECHNOLOGY, Chandigarh on 5th March, 2015

Dr. Rayson K. Alex was nominated as the Jury for the prestigious CMS Vatavaran 2015, the Environment & Wildlife Film Festival and Forum, New Delhi. The Nomination Jury selected films to be screened for the film festival. The Chairman of the Jury was the Mr. Rajendra Singh, the Nobel Prize winner for Water, 2015.

### **University Immersion** 2015

Prof. Anjan Chattopadhyay, visited University of Heidelberg, Germany hosted by Prof. (Dr.) Horst Koppel and worked on Computational photochemistry and photodynamics of some substituted polyene (Hexatriene) system.

Dr. Sumit Biswas, visited Freie Universitat, Berlin hosted by Prof. Udo Heinemann and worked on Structural studies on novel protein from Moringa Oleifera.

Prof. Geetha B visited the School of Literature, Media and Communication. Ivan Allen College at Georgia Institute of Technology, Atlanta from June 28th to July 25th (4 weeks). She worked with Prof. Lisa Yaszek, a professor and director of undergraduate studies. The work involved understanding the design of a Liberal Arts programme that is relevant in a technologically driven world at both Undergraduate and Masterslevel. She also looked at the possibility of future collaborations.

### **Industry Immersion** 2015

Prof. Utpal Roy, visited the Post Graduate Institute of Medical Education & Research (PGIMER), Chandigarh snd worked on the Molecular Identification of Hospitalacquired Fungal isolates by MALDI-Biotyping and Amplified Fragment Length Polymorphism (AFLP).

Dr. Sachin Waigaonkar, visited GMI Zarahak Moulders Pvt. Ltd., Verna, Goa and worked on the Development of Low cost Mould Internal Temperature Monitoring system for Controlling Rotational Moulding.

Prof. Halan Prakash visited the National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram and worked on the Pollution control /Oxidant Activators, Advanced oxidation processes.

Dr. Ranjit S. Patil visited the Shri. Mahankali Sahakari Sakhar Karkhana Ltd., Kawathemahankal, Sangli, Maharashtra and worked on the Energy Conservation & Co-generation.

This CSIR -Senior Research Fellowships were awarded to Ms. Deepthi Das, Dept. of Biological Sciences, Priyanka Dwivedi, Dept. of Biological Sciences and Ms. Chetana Deoghare, Dept. of Chemistry.

Thesestudents have received the Mantra Awards 2015 from the BITSAA International in partnership with CEL: Mantra Outstanding Leadership -

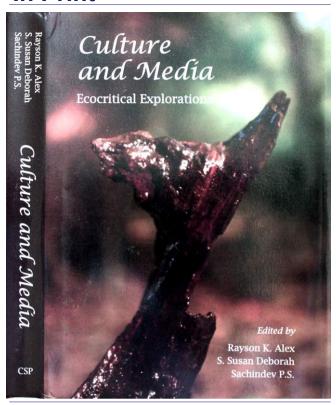
Anadi Rakesh Misra (2012A3PS141G) Mantra Entrepreneur of the Year Award -Prakhar Sharma (2011B3A4436G)

Mantra Award for Social Leadership -

Sanskriti Atul Dawle (2012A7PS083G)

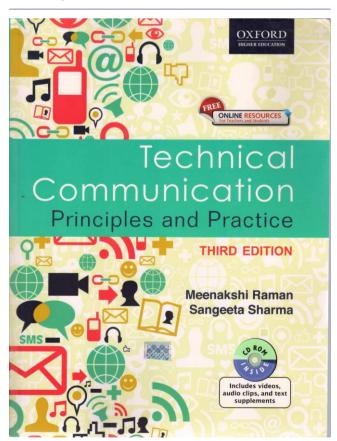
Mantra Innovator of the Year Award -Aman Srivastava (2012A7PS126G)

#### In Print



Rayson K Alex, Culture and Media: Ecocritical Explorations. Eds. Rayson K Alex, S. Susan Deborah and Sachindev P.S. 2014. UK: Cambridge Scholars **Publishing** 

Meenakshi Raman and Sangeeta Sharma, Technical Communication, Third Edition, New Delhi, Oxford University Press, New Delhi. 2015



## significant projects

'PRINCIPAL INVESTIGATOR		FUNDING AGENCY
& NAME OF THE	TITLE OF THE PROJECT	AND AMOUNT
DEPARTMENT		(RS. IN LAKH)
Prof. K.R. Anupama Dept. of EEE &IE	Design and development of condition based monitoring of pipelines using wireless sensor network	GAIL 95.876
Prof. PM Singru Dept. of Mechanical Engineering	Roll on Roll off payload design	Lockhead Martin USA 12.48
Dr. Ranjit Patil Dept. of Mechanical Engineering	Study and analysis of fluid dynamics and heat transfer characteristics in circulating fluidized bed heat exchanger with novel designs of distributor plates	SERB 27.66
Prof. S Sarkar Dept. of CS &IS	A Cost -Effective Approach of Making Software Dependable	Accenture USD 25000
Dr. Utpal Roy Dept. of Biological Sciences	Purification and characterization of a promising antifungal peptide (with special reference to Candida albicans and Cryptococcus neoformans) produced by a wild-type Bacillus sp. and cloning of its structural gene	DST 10.00
Prof. M.Srikanth Dept. of Biological Sciences	To Establish COD (Cr) Qualitity testing method for sea water	Hitachi India Pvt. Ltd 16.00
Dr. Angshuman Sarkar Dept. of Biological Sciences	Studies of the effects of quinacrine (QC) on regulation of Rho like small-GTPase and apoptosis in human lung and breast cancer cell lines cultured in vitro	DBT 23.973
Prof. Sunil Bhand Dept. of Chemistry	Development of a field portable devise for the analysis of environmental contaminants in water	BRNS 24.13800
Dr. Venkatesan Samy Thimmakondu	Structures and Energetics of C <sub>7</sub> H <sub>2</sub> and C <sub>9</sub> H <sub>2</sub> Isomers: Quantum Chemical Studies	SERB

## **QUARK 2015**

Quark 2015 was inaugurated on 5th February, 2015 at 7:30 P.M. The Chief Guest, Dr. Mathai Joseph and Guest of honor Mr. Shail Maniar were welcomed with the customary bouquet of flowers. The guests, along with Prof. K. E. Raman, Director, BITS Pilani, K K Birla Goa Campus, CSA President, Mr. Anmol Srivastava and Quark convener, Mr. Aum Jadhav marked the inauguration of the fest by the auspicious lighting of a lamp. Anmol Shrivastava elevated the stature of Quark from a mere techfest to a MOVEMENT. The Chief guest, Dr. Mathai Joseph, one of the earliest pioneers in computer science, reminisced about his meager baby steps in the world of programming and the exhilaration that came associated with it. He further urged the audience to follow their hearts. After this, the audience received a glimpse of the sponsors, including Sabre and Bluemix that made Quark possible. And then, to everyone's delight, Quark 2015 was declared officially open.

Prodigy and entrepreneur Nirman Dave shared some insight about his endeavors, of which Antable and Circuitricks were the most prominent. German artist, Lorenz Potthast, then spoke with great enthusiasm about using technology to produce mind-bending art. He previewed his Decelerator Helmet and shared light on the art of projection mapping.

The performance by the Mime Club was marked by eclectic combination of fluorescent lights and subtle play of shadows. In a display of sheer brilliance which was clearly a result of weeks of hard work, Mime Club enchanted the audience as they played with stars and tweaked the very passage of time. Through this scintillating performance the Mime Club compelled the audience to chase their dreams.

The inauguration ceremony was followed by a tele-presence lecture by Dr. Robert Curl, Nobel Laureate in the field of chemistry. Dr. Robert Curl, discoverer of the carbon football, buckminsterfullerene, enlightened students about using nanotechnology in Biomedical science. He specifically emphasized the use of technology against cancer.

Day 0 of Quark compelled people, not to be afraid of trying something new and striking out on their own, to transcend their perceptions of things as they are and to ALTER THE OBVIOUS.

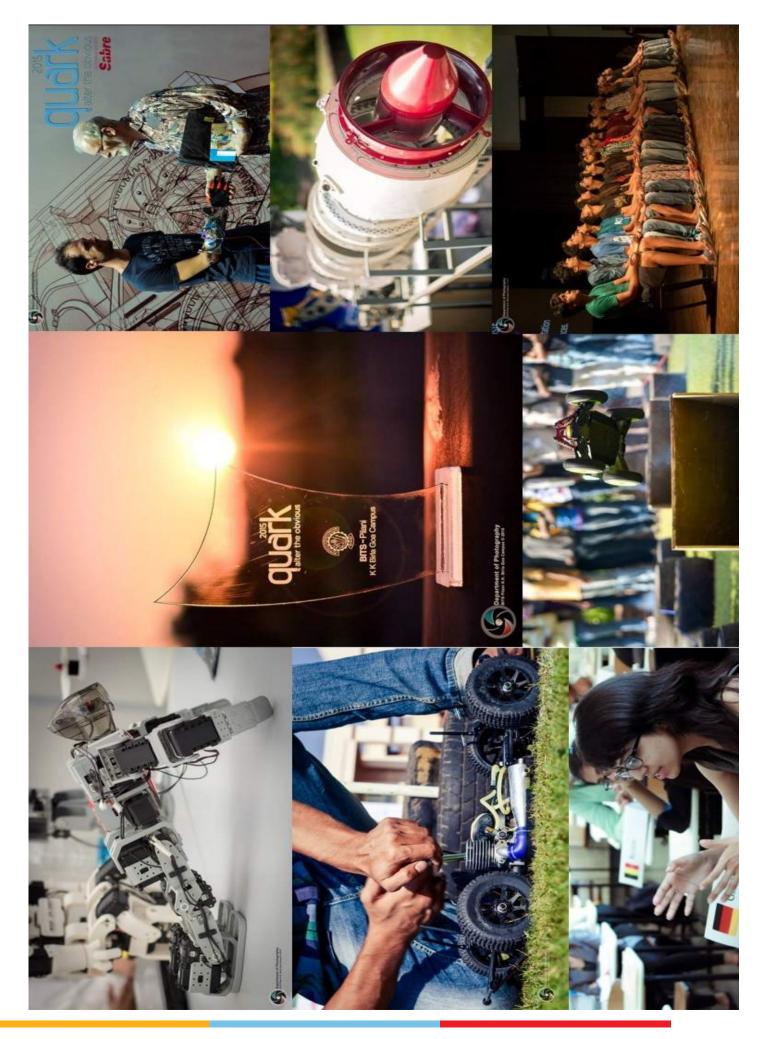
Quark 15 hosted guest lectures by prominent personalities in the field of science and technology.

Dr. A.S Pillai, the Padma Shree, Padma Bhushan awardee, and the architect of the world's fastest cruise missile BrahMos, shared his experience with the audience. Mr. Sekhar Basu, the director of Bhabha Atomic Research Centre, shared his invaluable knowledge with the aspiring engineers and scientists. The participants were introduced to the exciting world of hypnotism by the famous hypnotist Andrew Newton. Innovators like Nicholas Hutchet, who conceived the Bionico project, and Lorenz Potthast, the designer of the Decelerator Helmet also graced the event by their presence. Quark 15 was thus able to converge the gap between the experts and the aspiring young minds. Quark 15 also hosted the INK talks, where speakers from all over the country shared their experiences with the students. Lakshmi Pratury, Dr. Luis Dias, Sanvar Oberoi and Shashwat Ratan were among the speakers who came forth with amazing stories of their organizations and start-ups.

The participants also actively participated in the workshops organized by technical experts in various fields like robotics, artificial intelligence, cloud computing and aerospace technology. The brainwave workshop and Sixth Sense Robotics helped the students learn about the emerging technology in the field of robotics. For those interested in the working of IC engines, Quark 15 organized a workshop called Formula Zero E, where they were taught the concepts from scratch. The experts appreciated by NASA and ISRO shared their knowledge through the CANSAT workshop. Moreover, the participants worked with AR IDE build modules which included interfacing camera, identifying markers, overlaying text, image, video, 2D & 3D elements, in the Augmented Reality workshop. A workshop on cloud computing was also highly appreciated by the participants.

Quark has always been known for combining technology with fun. Quark 15 was no exception. The days were filled with fun filled events and competitions like Robokick, the exciting bot football match, and Roborace. The hotwheels fans had an amazing time at Burnout, the Design and Build event where the line robo cars travelled in a terrain full of obstacles. Apart fron the technical events, Quark 15 also gave the aspiring entrepreneurs a chance to explore their interest through Wall Street Revolution, where the participants played virtual Wall Street using fake currencies.

Quark 15 proved to be an amazing opportunity for students from all over the country, to learn and share their experienced with each other. It provided an amazing platform to the tech enthusiasts to come together and innovate. It proved to be an excellent example of how knowledge can be gained from any direction, in any field. The fest successfully altered the obvious.



## **SPREE 2015**

BITS Pilani K.K. Birla Goa Campus hosted their annual sports festival, Spree 2015, from 12th to 15th March. Spree is a non-profit sports festival aimed at promoting sports and social interaction among colleges all over India. The tagline for Spree '15 was "Challenge your Limits", sending an inspiring message to all the participants to go beyond their comfort zones and discover their potential. The fest definitely scaled new heights this time and provided the perfect combination of nail-biting matches during the days and fun-filled performances in the nights.

Day 0 started off with inaugration in the auditorium and left everyone bristling with anticipation for the matches the following day.

Day 1 saw fast-paced football and basketball matches, as well as cricket, tennis and volleyball events. The indoor games also kicked off with carrom, badminton and Girls' table Tennis matches. An informal Hogathon event open to all was also organised where the participants gorged on Pani Puris and Vada Pavs. At the end of the day, there was a gripping performance by the beatboxer Prayatna Jain, also known as the Beat Machine. He showed off his versatility in various styles of beatboxing such as dubstep, techno, drum and bass, and hip hop. The audience was also mesmerized by the illusionist Suhani Shah, with her confidence and enthusiasm.

Day 2 had the spectators and competitors filled with adrenaline as it started off with exciting football and badminton matches. The cricket field saw close fights between the teams battling it out to get into the finals, while the semi-finals of the boys' basketball match took a dramatic turn when one of the teams walked off the court and the match was forfeited. The audience was enthralled at night by the MTV Coke Studio Artist Ramya lyer with her beautiful voice. There was also a "Winners' Dinner" held for all the finalists.

The final day saw well deserved victories by various teams in the different events, and the night ended on a happy note. Agnee, the popular Indian rock band with strong classical influences performed. The crowd had the band crooning out Aahatein twice on demand.

All in all, Spree'15 lived up to its tagline and was an unforgettable experience, both for the participants as well as the spectators.



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
Prof. Pravin Singru	Mechanical	Reviewer for ASME 2015 International Mechanical Engineering Congress
Prof. Santonu Sarkar	Computer Science	(i)Served the program committee of 22nd Asia Pacific Software Engineering Conference 2015 (ii)Reviewer of IEEE TSC
Dr. Sukanta Mondal	Biological Sciences	Reviewer for Journals PLOS One, Molecular genetics and Genomics, Journal of Bioinformatics and Sequence Analysis
Ranjan Dey	Chemistry	Reviewer for JOURNAL OF SOLUTION CHEMISTRY, JOURNAL OF INDIAN CHEMICAL SOCIETY, CHEMISTRY INTERNATIONAL, CMSE.
Dr. Anoop S Kumar	Economics	Reviewed an article for (i)the Journal of Financial Economic Policy: Emerald Publications and (ii) Global Economics, Management and Business Research: International Knowledge Press
Dr. P. Danumjaya	Mathematics	Reviewed papers for International Journal of Applied and Computational Mathematics, Springer.
Prof. Meenakshi Raman	Humanities and Social Sciences	Reviewed three papers for the AIMS International Journal of Management and two papers for the British Journal of Education, Society and Behavioral Science.
Dr. K A Geetha	Humanities and Social Sciences	Reviewed one paper for the Journal of Intercultural Communication, Taylor and Francis, Routledge, U.K.

#### Consultancy

Dr. Rayson Alex, Mr. Solano Da Silva along with students Neha Naik and Sushobhan Parida completed a consultancy project on the Analysis of Stakeholders in Dr. Salim Ali Bird Sanctuary, Chorao, Goa. The consultancy was competed in Jan 2015 as part of a broader MoEF project on the Sustainable Management of Coastal and Marine Protected Areas, India (CMPA). It was awarded to them by the The German Development Cooperation (GIZ). The Funding amount was Rs. 2.68 lakhs.

#### Hosting International faculty

Dr. Narendra Nath Ghosh had invited to visit Professor Paul Millner of University of Leeds, UK for collaborative research related to DST-UKIERI project. Professor Paul Millner has visited BITS Pilani KK Birla Goa campus during 26 March to 28th March 2015.

A delegation from University of Tartu, has visited BITS Pilani K K Birla Goa Campus on 12th February 2015 in connection with Erasmus Plus joint master's programme in Analytical Chemistry with Dept of Chemistry. Subsequently, an MoU has been signed between both the institutions.

## snapshots

Farewell for the 2012 batch



Agnee at Spree 2015

**Dance Night '15** 





Mime Club Performing at Quark'15 Inauguration



**Drama Club Performance in 2015** 



## introducing new faculty

NAME	DESIGNATION	DISCIPLINE	RESEARCH AREA
Dr. Shashidhara Mecha Kotian	Assistant Professor	EEE & I	Power system dynamics
Dr. Neethu Robinson	Asst. Professor	EEE & I	Digital Signal Processing
Prof. Saibal Ganguly	Professor	Chem. Engg	Process System Engineering,
Dr. Pradeep Bogarrapu	Asst. Professor	Mathematics	Harmonic analysis on Euclidean spaces, Harmonic analysis on Heisenberg group, Weighted norm inequalities
Dr. Himadri Mukherjee	Asst. Professor	Mathematics	Algebra and combinatorics, toric varieties, graph theory, commutative algebra and algebraic geometry.
Dr. Dileep Kumar Gupta	Asst. Professor	Mech. Engg.	Thermal Engineering
Prof. Geetha B	Associate Professor	Humanities and Social Sciences	Media and Film Studies ; Science Fiction
Prof. G. Raghurama	Senior Professor	EEE & I	Communication networks, VPNs, Software Testing and Web access techniques

## editorial team

mraman@goa.bits-pilani.ac.in	
judith@goa.bits-pilani.ac.in	
shaliniu@goa.bits-pilani.ac.in	
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## **BITS** Pilani

K K Birla Goa Campus

## mediaspeak

Talk on climate change:

François Richier, the ambassador of France, will be visiting BITS Goa campus on April 27 at 2pm at the conference room on campus. Richier will speak on climate change at 3pm. France will host the global conference on climate change in Paris in December this year, which aims at reaching a global agreement to tackle this critical issue. For more details contact Srikanth Mutnuri on 2580125.





तंत्रव्यवस्थापकीय विशाली आपले पकल्प मेळाल्याचे हैं. गोमनक

BITS-Goa new

BITS-Goa is eco-cinema: The departme of humanities and social sci-ences at the Birla Institute of

Blended Learning in

**Engineering Education** 

ences at the Birkin Institute of Technology and Science Pilani, K K Birki Soa Campus, Soa, s organizing a national conflerence on "Ecochones" celebrating landscapes and waterscapes on October 9 and 10 at the Goa Campus. The conference will be organized as part of thal Ecofilm Festival 2015. The last date of registration as conference delegate August The last date of registration as conference delegate August 15 and the deadline for paper submission is September 15. INAI Ecofflin Festival is an annual event of BITS Piliani, K Birla Goa Campus organized in collaboration with Kuala Lumpur Ecofflim Festival (KLEFF), Malaysia, School of Media and Cultural Studies, Tata Institute of Social Sciences, Mumbal, Li-Curtural Studies, Anala Institute
of Social Sciences, Mumbai, LiLA Foundation for Translocal
Activities, New Delhi and Bangalore Film Society (BFS), Bangalore, ASLE, USA and other organizations. For details contact
Rayson K Alex on 08975297188.

GSPCP and BITS initiate course on environmental pollution, protection IISWBM D SPORTS MANAGEMENT

बिटस पिलानीत 'रेड' मोहीम यशस्वी

'India's 7th best campus

Nida Sayed | TNN

Panaii: HolidayIQ.com, the Panaji: Holiday/Q.com, the popular holiday recommendation website, has listed the Goa campus of Birla Institute of Technology and Science (BITS Pilani) as No.7 in its list of beautiful

campuses.
The list, titled '20 college The list, titled '20 college campuses in India that are so beautiful that they deserve to be tourist attractions', named educational institutes in India that have impressive campuses. BITS Pilani's Goacampuses. puses. BITS Phant Scoacam-pus stood out for its 'scenic beauty and panoramic view of picturesque surroundings encompassing the Zuari Riv-er, hillocks, waterways, for-

#### **ACM** India Event 2015



The annual 3-day ACM India Event 2015 will be held at BITS Pilani - Goa

Rebruary 6
where professor John Hopcroft,
the winner of the 1986 A M Turing prize will give a keynote address on "future of Computer
Science", ACM Goa professional
chapter is organizing the event
with BTS Pilani K Birla Goa Campus and Goa University as its cohousts. The annual event will fleature interesting keynote addresses, panel discussions,
research presentations of highest quality from India and special
computer science educator's computer science educator's neet that will be launched fo the first time in India by ACM India. The annual flagship event is a meeting of ACM India and ACM-W (women) India members ACM-W (women) India members as well as ACM - student chapter

#### BITS-Quark fest ends; gadgets, innovations in spotlight

Electric cars, frying drones, robots and prosthetics: budding engineers steal the show

Panaji: Arguably the State's big-gest techno-management fest BITS quark', came to a close on Sunday capping four days of intense bat-ties, workshops, events and lec-

thes, was supported to the event was the talk by Ian McElhinney, who played Sir Barristan Selmy in the popular series Game of Thrones.

It was however the budding engineers who stole the show with their self made electric cars, big and small, frying drones, robots and morathetics.

and small, frying crones, and prosthetics. Trailblazer, an event organised by the Aerodynamics Club, saw participation from five different colleges. The first round consisted of manoeuvring aircrafts along

Finally, a performance by Indian Idol sensation, Amit Sana helped wind-up a truly eventful three days.





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