

September 2015

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

57th Teacher's Day Celebration at IIT Bombay

Commemorating the birth anniversary of noted philosopher, educationist and statesman, Dr. S. Radhakrishnan, the Indian Institute of Technology Bombay (IITB) celebrated its **57th Teacher's Day** at the institute campus. **Prof. Vasudha Kamat, Vice-Chancellor, SNDT Women's University**, was the Chief Guest for the occasion.

In his welcome address, Prof. Devang V. Khakhar, Director, IITB said, "Teaching is most important activity as a faculty member and teaching undergraduate students has a greater impact since the foundation of his/her professional knowledge is built at this stage. Today, on this auspicious occasion of teacher's day celebrations, I would like to acknowledge the efforts of the faculty members, because it is only due to their hard work that the Institute is doing very well. As we give away the excellence in teaching award today, I feel very delighted because the list this year is a great mix of young and old faculty members. This just goes to show that the passion of teaching which is there at the beginning of the career, remains intact even after teaching for many years. "

Prof. Vasudha Kamat, conferred the Excellence in Teaching Awards (2015), Dr. P. K. Patwardhan Technology Development Award (2014), and IRCC Research & Industrial Consultancy Awards (2014), as a recognition to the contribution made by the faculty members of IITB in the field of teaching and research, at the Teacher's Day function. Before the presentation of every award, a short citation on the proud recipient was also read out. The list of the awardees is as follows:

Awards for Excellence in Teaching (2015)

- · Prof. S.J. Gharpure. Dept. of Chemistry
- · Prof. Mandar Inamdar, Dept. of Civil Engineering
- · Prof. Pradeep Nair, Dept. of Electrical Engineering
- · Prof. Madhu Vinjamur, Dept. of Chemical Engineering
- Prof. M.J.N.V. Prasad, Dept. of Metallurgical Engineering and Material Science
- · Prof. N.N. Viswanathan, Dept. of Metallurgical Engineering and Material Science
- · Prof. Srikanth Srinivasan, Dept. of Mathematics
- Prof. Kiran Kondabagil, Dept. of BioSciences and BioEngineering
- · Prof. G.K. Lahiri, Dept. of Chemistry
- · Prof. V.D. Sharma, Dept. of Mathematics

Dr. P. K. Patwardhan Technology Development Award (2014) was awarded to Prof. J. K. Nayak & his team members, Dept. of Energy Science and Engineering.

IRCC Research & Industrial Consultancy Awards (2014)

1. Research Awards for the Year 2014

IIT Bombay Research Paper Award (2014)

- Prof. Dulal Panda, Dept. of BioSciences and BioEngineering
- · Prof. Debabrata Maiti, Dept. of Chemistry
- · Prof. Prasenjit Ghosh, Dept. of Chemistry
- · Prof. R.S. Jangid, Dept. of Civil Engineering
- · Prof. Anil Kottantharayil, Dept. of Electrical Engineering

IIT Bombay Review Paper Award (2014)

- · Prof. Sanjeeva Srivastava, Dept. of BioSciences and BioEngineering
- · Prof. R. Murugavel, Dept. of Chemistry



IIT Bombay Young Investigator Award (2014)

- · Prof. Maheshwaran Shanmugam, Dept. of Chemistry
- · Prof. Suryanarayan Doolla, Dept. of Energy Science and Engineering
- · Prof. Amartya Mukhopadhyay, Dept. of Metallurgical Engineering and Material Science

2. Industrial Consultancy Award for the year 2014

IIT Bombay Industrial Impact Award (2014)

· Prof. Ashish Juneja, Dept. of Civil Engineering

Sharing her thoughts on the occasion, Prof. Vasudha Kamat, said, "In the 21st century the teacher is not only a person who teaches but he has to take on many other roles according to the needs of the student. He has to become a moderator, facilitator, mentor, role model and enable his students to learn by themselves. Today, technology plays an important role in teaching and I think that it should be used to create knowledge. I also think that discussions and debates help a student more in terms of learning and personality development. I believe that the best award in a teacher's life is when a student comes to you and says that you have impacted their lives. So, we should try not only to lecture them about concepts and theory but encourage them to learn by themselves which will shape their future and will have a greater impact on them."

The Teacher's Day function also witnessed a beautiful cultural performance by the students of the institute as a mark of gratitude to their teachers. The event was attended by Deans, Heads of Departments, faculty members and students in large numbers.

Excellence in Teaching Awards – 2015 presented by Prof. Vasudha Kamat, Vice-Chancellor, SNDT Women's University



Prof. S.J. Gharpure, Department of Chemistry



Prof. Mandar Inamdar, Department of Civil Engineering



Prof. Pradeep Nair, Department of Electrical Engineering



Prof. Madhu Vinjamur, Department of Chemical Engineering



Prof. M.J.N.V. Prasad, Department of Met. Engg. & Mat. Sci



Prof. N.N. Viswanathan, Department of Met. Engg. & Mat. Sci.





Prof. S.R. Ghorpade, Head, Department of Mathematics receiving the award on behalf of Prof. Srikanth Srinivasan



Prof. G.K. Lahiri, Department of Chemistry



Prof. Kiran Kondabagil, Department of Biosciences & Bioengineering



Prof. V.D. Sharma, Department of Mathematics

Dr. P.K. Patwardhan Technology Development Award for the Year 2014



Prof. J. K. Nayak, Department of Energy Science and Engineering and his team



IIT Bombay Research Paper Award for the Year 2014



Prof. Dulal Panda, Department of Biosciences and Bioengineering



Prof. Debabrata Maiti, Department of Chemistry



Prof. Prasenjit Ghosh, Department of Chemistry



Prof. R.S. Jangid, Department of Civil Engineering



Prof. Anil Kottantharayil, Department of Electrical Engineering

IIT Bombay Review Paper Award for the Year 2014



Prof. Sanjeeva Srivastava, Department of Biosciences & Bioengineering



Prof. R. Murugavel, Department of Chemistry



IIT Bombay Young Investigator Award for the Year 2014



Prof. Maheswaran Shanmugam, Department of Chemistry



Prof. Suryanarayana Doolla, Department of Energy Science and Engineering



Prof. Amartya Mukhopadhyay, Department of Metallurgical Engineering & Materials Science

IIT Bombay Industrial Impact Award for the Year 2014



Prof. Ashish Juneja, Department of Civil Engineering

Launch of National Center of Excellence in Technology for Internal Security



Mr. Alok Joshi, Chairman, NTRO and Mr. J.S. Deepak, Secretary, DeitY formally inaugurating NCETIS

With the focus to develop modern technology in warfare, and leverage the existing expertise in IIT Bombay, the Institute launched its National Center of Excellence in Technology for Internal Security (NCETIS) on September 21, 2015. Mr Alok Joshi, Chairman NTRO and Mr J.S. Deepak, Secretary, Department of Electronics and Information Technology (DeitY), unveiled the logo of NCETIS in the presence of Dr Ajay Kumar, Additional Secretary. DeitY, Prof. Devang V. Khakhar, Director, IIT Bombay and several other dignitaries, faculty and staff.

Speaking on the occasion, Mr. Alok Joshi, Chairman, NTRO said, "Internal security is a pertinent issue in today's day and age and I think setting up of a center like this is a good step towards bridging the technology innovation gaps in this area. I wish all of you success in this endeavor. My department is committed to any effort being taken in this field and I assure you all the help from my end."



The project has been approved by the Department of Electronics & Information Technology (DeitY) with an initial budget outlay of Rs 83 crores for a period of five years. The IIT-B Center will cater to the technology requirements of state police, central paramilitary and other internal security agencies

Giving the Introductory address, Mr. J.S. Deepak, Secretary DeitY, said "Development of state of the art communications system, modern imaging techniques. and sophisticated weapons, the technology development for internal security within the country has become strategically important. It has become extremely important to address the requirements of state and central police forces and agencies involved in public safety and disaster management. Internal security has distinct requirements in terms of complexities and challenges as the threats arise on account of various factors such as social structures and inherent inequities; therefore, a different approach would be essential. NCETIS is expected to address this national requirement"

Speaking about the perspectives behind setting up of the centre, Dr. Ajay Kumar, Additional Secretary DeitY said, "The objective of the centre would be to undertake

research activities to address the technology innovation gaps for security in short term, long term and medium term. The idea is to transform the research outcomes into prototypes and facilitate technology transfer for product development. In addition, the centre will try and engage with industry partners for possible commercialization of the technology developed. The centre will also be undertaking consulting and advisory services for security forces about technology choices, and hosting training activities for technology appreciation."

NCETIS will focus on research and development, prototype fabrication and proof of concept of technology. It will collaborate with various R&D labs, academia and industry in the country to get the maximum benefits. The center will also actively engage with the manufacturing industry for commercialization and technology licensing.

Elaborating on the research activities that would be undertaken by NCETIS, Prof. Abhay Karandikar, NCETIS Coordinating Faculty from IIT Bombay said, "The centre would focus on developing prototypes in several focus areas relevant to state and central police forces. The center will act as

resource center for our security agencies. It has been a felt need for long since our country does not have a focussed approach to address technology innovation gaps for state and central police agencies."

Earlier in the day, the event was kick started by Prof. Devang. V Khakhar, Director, IIT Bombay. While giving the welcome address, Prof. Khakhar said, "We felt that there is technology innovation gaps for internal security in the country and since many of our colleagues at IIT Bombay are doing advanced research in the area of Robotics, Video Imaging etc which are relevant products for internal security, we thought of this center. All of them got together and held various meetings with the police forces and other internal security agencies and finally today we are launching this center with the help of Department of Electronics and Information Technology. I hope that this center will have a major impact on the technology in security landscape of the country."

The workshop witnessed participation from representatives from CRPF, CISF, State Police Forces, NIA, SPG, DRDO, Industry, NTRO and IITB Faculty Members who discussed important issues and tried understanding the end User Requirements and the Way Forward for the center.

UK Trade & Investment Minister visit to IIT Bombay



(L-R) Mr. Kumar Iyer, British Deputy High Commissioner Mumbai, Rt Hon Lord Francis Maude, UK Minister for Trade and Investment, Prof. H.S. Pandalai, Deputy Director (FEA) on the dais.

The Rt Hon Lord Francis Maude of Horsham, Minister of State for Trade and Investment visited the IIT Bombay Campus on September 9, 2015. He announced a new venture in the Financial Technology ("Fintech") sector at a lecture to IIT Bombay's students, faculty members, invited entrepreneurs and media. Fintech is a fast-growing area of business, providing IT solutions in the financial services industry.

While talking to the students, Lord Francis Maude said "The UK and India have well established commercial ties and my visit aims to take this to a new level of strength and cooperation. Our Government is committed to an enhanced partnership with India. I will be meeting Indian Government and business leaders to discuss how we can support Indian PM Modi's aspirations for India's economy. The first initiative of the collaboration will be the creation of 'FinTech20 India', in close partnership with FinTechCity of the UK. It will search for twenty



FinTech innovators in India. Companies will be selected by a panel of experts from the UK and India and will be promoted in the FinTech50 2016 when it is released to a world-wide audience next year."

The aim of the new venture is to create a 'FinTech bridge' between UK and India. Led by Alok Vajpeyi and the UK's Startupbootcamp, it will encourage close collaboration and investment in UK and Indian Fintech companies and help them expand globally. Lord Maude also extended his support for UK-India business collaborations and innovation.

Talking about how UK and IIT Bombay can collaborate in the future, Prof. Asim Tewari, Professor In-charge of NCAIR, IIT Bombay said, "We are in the process of establishing a joint collaborative Phd program with the Advanced Manufacturing Research Centre (AMRC) at the University of Sheffield"

During his visit to IIT Bombay, Lord Maude also visited the National Centre for Aerospace Innovation and Research (NCAIR) who are collaborating with the UK's University of Sheffield and using tailored IT platforms created by the UK's Delcam.

Talking about the visit of Lord Maude to NCAIR and its relevance, Prof. Asim Tewari, observed," NCAIR is an excellent example of industry academia collaboration modelled based on similar centres at University of Sheffield and University of Strathclyde, UK."

In the continued effort for the Indo-UK bilateral cooperation, IIT-Bombay has several programs with various academic institutions and industries of UK like University of Cambridge, University of Strathclyde, University of Edinburgh, University of Nottingham, Loughborough University, etc. These programs include joint research activities, student and faculty exchange program, etc.

CII – IDC, IITB – DSIR Conclave for MSMEs on New Product Development

The Make in India mission started by the Government of India is the pivotal statement made in recent times about the importance of revitalizing the manufacturing sector. The mission is as much dependent on creating new products, manufacturing them and creating new global brands as much as it is dependent on the systemic reforms in different domains concerning business. In view of intensifying competition and continuously occurring business model and technological changes New Product Development (NPD) has become an imperative for all companies to pursue, especially the MSMEs. Keeping this in view, and help MSMEs in NPD, a two day Conclave for MSMEs on New Product Development was organized at IIT Bombay during September 11 – 12 2015, by Industrial Design Centre, IIT Bombay, in partnership with CII and Department of Scientific & Industrial Research, Government of India.

The Conclave was an opportunity to share several strategies for designing new products while focussing on a structured process. It not only addressed conceiving of new products, but also helped MSME's to discuss strategies for go to market and winning in the markeplace. All in all it was a wholesome platform which provided the attendees a distinctive insight to ensure business growth.

In an highly interactive workshop like format, the conclave offered real, usable knowledge (not some idealistic advice), actual hands-on experience, rich interactions with speakers and fellow attendees and a stimulating experience.

Highlights of the Event

Interactive Session: The conclave witnessed interactive sessions with Mr. Suresh Sethi, Member, CII National Committee on Design & Director-Global Consumer Design Asia & Vice President-India,



Presentation by Prof. B. K. Chakravarthy, Head IDC, during the conference

Whirlpool, Mr. Jitendra Rajput, National Institute of Design, Mr. Amit Krishna Gulati, Member, CII National Committee on Design & Founder & Director, Incubis Consultants (India) Pl.

Workshop: The event also hosted workshops on topics like - Embedding consumers in your product development process by Mr. Milind Joshi Head R&D, Forbes Marshall Pvt Ltd. and Mr. Kunal Ghate Forbes Marshall Pvt Ltd., Converting user insights to Innovation by Prof. B. Ravi Mechanical Engineering Dept., IIT Bombay, Discover the user — User Studies, the stepping stone to innovation by Prof. U. A. Athavankar, Industrial Design Centre, IIT Bombay.

Conclusion: All in all the conclave was helpful in guiding the participants through the various stages of new product development. It focused on the process that can help in the creation of innovative products. The participants learnt how to identify new opportunities, design methodologies and tools in practice, how to improve products, and branding.



Hindi Diwas Celebration 2015

Like every year, IIT Bombay celebrated Hindi Diwas on September, 14, 2015 to mark the day on which in 1949, the Constituent Assembly of India had adopted Hindi written in Devanagari



(L-R) Mrs. Vaishali Bahulkar, Hindi Officer, Dr. Indu Saxena, Deputy Registrar (Admin), IITB, Chief Guest Dr. Ratan Kumar Pandey, Professor, Hindi Department, Mumbai University on the Dias

Hindi Pustak Pradarshani

script as the official language for the Republic of India. **Dr. Ratan Kumar Pandey**, Professor, Hindi Department, Mumbai University was the Chief Guest for the occasion. As part of the Hindi Pakhawada during September, 1-14, 2015, Hindi Cell at IIT Bombay

organized competitions like Hindi Story Writing, Dictation, General Knowledge, Hindi Translations and Hindi Song Singing Competition, for encouraging the staff members to use Hindi in their official work. The competitions witnessed an overwhelming response from the staff members.



List of the Winners of the Competitions

Hindi Story Writing Competition: September 1, 2015

S.N.	Name	Prize	Prize Amount
1	Mr. Hari Prasad Yadav	First	Rs. 2000/-
2	Mrs. Vandana Mankar	Second	Rs. 1500/-
3	Mr. Jitendra Jain	Third	Rs. 1000/-
4	Mr. Suraj Maurya	Consolation	Rs. 500/-
5	Mrs. Archana Joshi	Consolation	Rs. 500/-
6	Mrs. Sudha Tewari	Consolation	Rs. 500/-
7	Mrs. Jayshree Purandare	Consolation	Rs. 500/-

Hindi Dictation Competition: September 2, 2015

S.N.	Name	Prize	Prize Amount
1	Mr. M. R. M. Verma	First	Rs. 2000/-
2	Mr. Vinay Kumar Mishra	Second	Rs. 1500/-
3	Mr. Dinesh Kumar Dubey	Third	Rs. 1000/-
4	Mr. Namdeo G. Jadhav	Consolation	Rs. 500/-
5	Mr. Rajendra	Consolation	Rs. 500/-
6	Mr. Bhagwan Pagare	Consolation	Rs. 500/-
7	Mr. R .K.Lodh	Consolation	Rs. 500/-

Hindi Translation Competition: September 3, 2015

S.N.	Name	Prize	Prize Amount
1	Mrs. Shamal Mahadik	First	Rs. 2000/-
2	Mrs. Madhu	Second	Rs. 1500/-
3	Mr. Abhinav Kumar	Third	Rs. 1000/-
4	Mr. Jitender Jain	Consolation	Rs. 500/-
5	Mrs. Preity Jogle	Consolation	Rs. 500/-
6	Mr. Ashok Gupta	Consolation	Rs. 500/-
7	Mr. Chetan Karanjkar	Consolation	Rs. 500/

Hindi General Knowledge Competition: September 7, 2015

S.N.	Name	Prize	Prize Amount
1	Mr. Bhagwan Pagare	First	Rs. 2000/-
2	Mr. Sudhir Dobale	Second	Rs. 1500/-
3	Mr. Ashok Gupta	Third	Rs. 1000/-
4	Mr. Abhinav Kumar	Consolation	Rs. 500/-

5	Mr. Sachin Talashilkar	Consolation	Rs. 500/-
6	Mr. Dilip Gangad	Consolation	Rs. 500/-
7	Mr. Rajesh Joshi	Consolation	Rs. 500/-

Hindi Song' Singing Competition: September 10, 2015

S.N.	Name	Prize	Prize Amount
1	Mrs. Chaitali Amrite	First	Rs. 2000/-
2	Mrs. Jayshree Purandare	Second	Rs. 1500/-
3	Mrs. Sugandhi Vinjamur	Third - 1	Rs. 1000/-
4	Mr. Chetan Karanjkar	Third -2	Rs. 500/-
5	Dharmendra Chaurasia	Consolation	Rs. 500/-
6	Mr. Amar Kharte	Consolation	Rs. 500/-
7	Mr. Rajesh Joshi	Consolation	Rs. 500/-
8	Mr. M.R. M. Verma	Consolation	Rs. 500/-

Certificates and Cash awards was also awarded to staff members who have done exemplary work in Hindi language The list of the winners in this category were:

S.N.	Name	Prize Amount
1	Mr. Mukesh Madhukar Phansekar	Rs. 1000/-
2	Mr. Srikanth Pawaskar	Rs. 1000/-
3	Mrs. Anupama Aji	Rs. 1000/-
4	Mrs. Sanjeevani Birare	Rs. 1000/-
5	Mrs. Jaya Karvanje	Rs. 1000/-
6	Mrs.Sangita Chowdhary	Rs. 1000/-
7	Mrs.Shravani Aamberkar	Rs. 1000/-
8	Mr. Deepak Maruti Kamble	Rs. 1000/-
9	Mrs. Sneha Vasant Pawar	Rs. 1000/-
10	Mrs. Archita Prvin Patil	Rs. 1000/-

As a part of this Pakhwada, Central Library with the help of Hindi Cell, organized a five day "Hindi Pustak Pradarshani"- a book exhibition during September 7-10, 2015. Prof. Arup Ranjan Bhattacharya, Department of Metallugical Enginreering & Materials Science inaugurated this Exhibition in the presence of Prof. S.V.Kulkarni, Department of Electrical Engineering and Prof. M.Vinjamur, Department of Chemical Engineering.



Research in Focus



Physics behind Perovskite

Researchers at IIT Bombay have identified some unique features common to all perovskite solar cells that would lead to better understanding in terms of device physics and control parameters.

Among the renewable sources of energy, sun is probably the most promising source to meet our future energy requirements. The first Photovoltaic cell was built around 60 years ago, in 1954 at Bell Laboratories. Since then a great deal of research has been directed towards improving efficiency and reducing costs. Nevertheless, solar cells have not yet gained the popularity and acceptance as expected.

The major factor that has hindered widespread acceptance of Solar cells is their high manufacturing cost.

Most of the solar panels available in the market today, are based on Crystalline Silicon technology, which is very expensive. Hence to reduce costs, along with process optimization and modifications, cheaper substitutes are also being tried and tested. One such material called perovskite, was first used in solar cells in 2009. Recently there has been widespread research on novel solar cells with perovskites as the active material for enhanced efficiency. Numerous publications about perovskite based photovoltaic cells have recently appeared in top-notch journals with efficiencies approaching 20%. Although these results were promising, there still was a lack of a unifying theoretical framework which would allow scientists at different laboratories to compare results and design better experiments. Thus, Professor Pradeep Nair from Electrical Engineering Department, IIT Bombay, along with his colleagues, co researchers and students, decided to try and come up with a theoretical framework to explore the fundamental device physics of Perovskite based cells.

The research started with formulation of theoretical equations to predict the current characteristics in absence of light. The corresponding theoretical predictions (done by Mr. Sumanshu Agarwal, Graduate student, Dept of Energy Science and Engineering, IIT Bombay) were then juxtaposed with actual experimental data from labs at IITB as well as data available from existing literature, published by other researchers Oxford university, Swiss Federal Institute of Technology, Lausanne and IISER-TVM. It was observed that irrespective of the differences in materials used and in the fabrication methodology employed, the Perovskite based Solar cell exhibited two distinct parameters, namely the 'ideality factor' and the 'Voltage exponent' at high bias regions, that remained roughly the same throughout. With this knowledge of the device characteristics, they came up with a theoretical framework for the working of the cells consistent with their findings, which was published in the prestigious Journal of Physical Chemistry in November 2014.

After the path breaking research on the Dark current characteristics, Prof.Nair and the team are now focussed on exploring the illuminated current-voltage characteristics. With the Dark IV characteristics well understood, their aim is to understand and analyze system level performances and to build a framework to predict how perovskite solar cells would perform under variable illumination conditions.

(Published in Journal of Physical Chemistry Letters, November 12, 2014)

The above mentioned research on perovskite solar cells was conducted at IIT Bombay using the facilities available at the Center of Excellence in Nanoelectronics (CEN) and National Center for Photovoltaic Research and Education (NCPRE). This research is partially supported by the Solar Energy Research Institute for India and the United States (SERIIUS).

For more details visit: http://www.iitb.ac.in/en/research-highlight/physics-behind-perovskite



Institute Colloquium / Lectures & Seminars



Prof. A.K. Sood FRS, Department of Physics, Indian Institute of Science Bangalore, delivered the Professor C.N.R. Rao Lecture Series on Nanoscience and Nanotechnology on "The Rise of Two Dimensional Nanosystems" on September 22, 2015.

Departmental Lectures

Department of Electrical Engineering

Mr. G. Raj Narayan, Radel Electronics (P) Ltd. delivered a talk on "Blending Technology and passion" on September 15, 2015

Department of Humanities and Social Sciences

Dr. Neha Gupta, Delhi School of Economics, New Delhi, delivered a talk in a seminar on "Government Intervention in Grain Markets in India: Rethinking the Procurement Policy" on September 23, 2015.

Department of Civil Engineering

Dr. Koji Ishida, Consulting Group, Ono Sokki Co. Ltd., Gurgaon, delivered an industrial talk in a seminar on "Sound design for industry now and the future" on September 30, 2015.

Department of Energy Science and Engineering

Mr. Arjun Bhowmik, Director of Integrated Supply Chain (Chocolate), Mondelez International, delivered a talk in a seminar on the topic of "Sustainability Goals 2020:

Striving towards Sustainable Snacking" on September 30, 2015.

Dr. M T Arvind, Co-founder, Amplebit Energy Solutions, delivered a talk in a seminar on the topic of "Rational Buildings - Beyond IoT" on September 30, 2015.

Prof. Chetan S. Solanki, Department of Earth Science and Engineering, IITB, delivered a talk in a seminar on "Solar Lighting Millions Through Open Source Hardware" on September 30, 2015.

Center For Technology Alternative in Rural Areas (CTARA)

Mr. Shubhranshu Choudhary, Co-founder of CGNet Swara, delivered a talk in a seminar on "ICT for Development: Connecting two different worlds of cities and villages through CGNet Swara" on September 15, 2015.

Mr. Abhijit Bangar, IAS, Collector and District Magistrate, Palghar and Mr. Uday Chaudhari, IAS, Chief Executive Officer, ZP Thane. delivered a talk in a seminar on "Development policy paradigm in Maharashtra in context of decentralized planning and opportunities for co-operation with research institutes for planning and evaluation studies" on September 24, 2015.

Climate Studies

Prof. Dev S. Niyogi, University Faculty, Scholar and Indiana State Climatologist Purdue University, delivered a talk in a seminar on "Urbanization Impacts on Weather and Climate" on September 2, 2015.

Dr. Roxy Mathew Koll, Scientist D, Indian Institute of Tropical Meteorology Pune, delivered a talk in a seminar on "Interplay between the Indian Ocean, ENSO and the Monsoon in a warming environment" on September 9, 2015.

Prof. Sudhir Chella Rajan, Indian Institute of Technology Madras,

delivered a talk in a seminar on "Locating Climate Justice in Climate Policy" on September 23, 2015.

Dr. Biswajit Mukhopadhyay, Independent consultant and Former Manager of Engineering – Water Resources, Jacobs Engineering Group, Inc. – Dallas, TX delivered a talk in a seminar "Hydrological Signals of Climate Change in Upper Indus Basin" on September 30, 2015.

Computer Science and Engineering

Ms. Melissa Hathaway, Senior Advisor to Cyber Security Initiative of Harvard Kennedy School's Belfer Center for Science and International Affairs, Cambridge, delivered a talk on "Connected Choices" on September 22, 2015.

Mr. Pravin Bhagwat, Co-founder and CTO, AirTight Networks, delivered a talk on "Confessions of an Accidental Entrepreneur" on September 30, 2015.

Centre for Environment Science & Engineering (CESE)

Dr. Mritunjay Chaubey, Global incharge of Sustainability – Unilever Engineering, Unilever, delivered a talk on "Sustainable Industrial Water Management" on September 16, 2015.

Awards and Distinctions

Prof. Subhananda Chakrabarti, Department of Electrical Engineering, has been selected to receive the Materials Research Society's Medal for the year 2016, in recognition of his outstanding research contributions.

Prof. K. Ramasubramanian, Department of Humanities & Social Sciences, has been appointed as a Member of the Rashtriya Sanskrit Parishad (Central Sanskrit Board) constituted by the Ministry of Human Resource Development, Government of India.

Prof. Alok Porwal, Centre of Studies in Resource Engineering



(CSRE), been appointed as Associate Editor of the Elsevier journal "Ore Geology Reviews" and Member of the Editorial Advisory Board of the Springer Journal "Natural Resources Research".

Prof. U.K. Anandavardhanan, Department of Mathematics, has been awarded the NASI Scopus Young Scientist Award 2015, for his outstanding research contributions.

Prof. Pushpak Bhattacharyya, Department of Computer Science and Engineering, has been elected as Fellow of the Indian National Academy of Engineering (INAE) for the year 2015.

Prof. Santanu Bandyopadhyay, Department of Energy Science and Engineering, has been elected as Fellow of the Indian National Academy of Engineering (INAE) for the year 2015.

Prof. S.A. Soman, Department of Electrical Engineering, has been elected as Fellow of the Indian National Academy of Engineering (INAE) for the year 2015.

Prof. Amit Agrawal, Department of Mechanical Engineering, has been elected as Fellow of the Indian National Academy of Engineering (INAE) for the year 2015.

Publications

Prof. Sudha Shastri, Department of Humanities and Social Sciences, presented a paper titled Modernist interventions in historiographic narratives: Natalie ZemonDavis and The Return of Martin Guerre (1983)" at the national seminar on Multiple Modernisms" organised by IRIS (Institute for Research in Interdisciplinary Studies), Jaipur during 25-27 September 2015.

Prof. U. A. Yajnik, Department of Physics, presented a seminar entitled "Early Universe and gauge symmetry breaking" at the activity Early Universe, Cosmology and Fundamental Physics, held at the Kavli Institute for Theoretical Physics China (KITPC) at the Chinese Academy Sciences, during September 07-24, 2015

Research Scholar News

Ms. Nisha Viswanathan, PhD scholar, Department of Humanities and Social Sciences, presented a paper titled "The Vanguardist as Angel of History: The Temporal Poetics of Robert Bolano's Visceral Realism", at the national seminar on "Multiple Modernisms" organised by Institute for Research in Interdisciplinary Studies, Jaipur, during 25-27 September 2015.

Appointments

Dr. Mathew Joseph, Department



of Computer Science and Engg., has been appointed as Post Doctoral Fellow on Sept. 3, 2015.

Dr. Kumaravel M. Kumar,



Department of Biosciences and Bioengineering, has been appointed as Post Doctoral Fellow on Sept. 9, 2015.

Dr. Bablu Mukherjee, Department



of Electrical Engg., has been appointed as Post Doctoral Fellow on Sept. 14, 2015.

Dr. Mushtaq A. Bhat, Department



of Mathematics, has been appointed as Post Doctoral Fellow on Sept. 18, 2015.

Dr. Venkataramana Imandi,



Department of C h e m i c a l Engineering, has been appointed as Post Doctoral Fellow on Sept. 23, 2015.

Dr. Soumyadeep Chakraborty,



Department of C h e m i c a l Engineering, has been appointed as Post Doctoral Fellow on Sept. 28, 2015

Dr. Subramanya B, Department of



Metallurgical and Materials Science, has been appointed as Post Doctoral Fellow on Sept. 30, 2015

NOTIFICATION

Prof. P.M. Mujumdar, Dept. of Aerospace Engineering has been appointed as Deputy Director (Finance and External Affairs) w.e.f. 30.9.2015. for a period of 3 years.

Retirements in September 30, 2015

Shri Janardhan R. Patwal.



Superintendent, Center of Studies in R e s o u r c e s E n g i n e e r i n g (CSRE), retired, after 35 years of service.

Shri Rajaram Topa Kamble,



Sr. Attendant, Hospital, retired after 37 years of service

Shri Prabhakar B. Muntode,



Attendant (SG), Hospital, retired after 35 years of service.

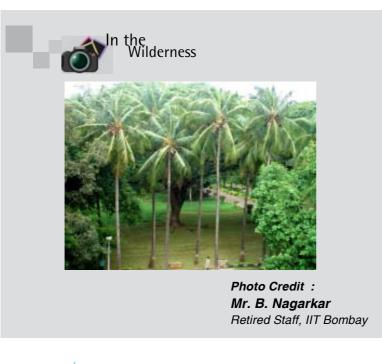
Shri Ramkrishna A. Mestri, Sr.



Helper, Electrical Maintenance, retired after 36 years of service.



CEP courses scheduled during November - December 2015			
No	. Course Title	Course Coordinator / Department	Duration
1.	3D Printing	Prof. K.P. Karunakaran, Department of Mechanical Engineering	November 2-4, 2015 (3 Days)
2.	Optimization in Design and Engineering	Prof. Ravindra D. Gudi, Department of Chemical Engineering	November 2-6, 2015 (5 Days)
3.	Energy Management	Prof. Rangan Banerjee, Department of Energy Science & Engineering	November 23-27, 2015 (5 days)
4.	Ground Water and Surface Water Management	Prof. T.I. Eldho, Prof. A.K. Rastogi, Department of Civil Engineering	December 7-11, 2015 (5 days)
5.	Piping Engineering	Prof. A.S. Moharir, Department of Chemical Engineering	December 9-19, 2015 (11 days)
6.	Building Global Cio Competencies	Prof. S. Bhargava, SJM School of Management	December 10-12, 2015 (3 days)



Salt'N Pepperby Dr. Arun Inamdar





September 2015

Campus Diary is edited and published by Public Relations Officer, IIT Bombay, Powai, Mumbai - 400 076.	BOOK POST	
Printed at IITB Printing Press		
For Private Circulation Only.		
Material for publication in Campus Diary should reach PPR section by the 25th of every month		
(email : campusdiary@iitb.ac.in)		