

## Leadership In The Backdrop Of Make-In-India. Needs, Gaps and Options



A panel discussion on 'Leadership in the backdrop of Make-in-India. Needs, Gaps and Options' organized by IIT Bombay and Washington University in St. Louis at the Taj Lands End, Bandra.

A panel discussion on '**Leadership in the backdrop of Make-in-India. Needs, Gaps and Options**' was organized by IIT Bombay and Washington University in St. Louis at the Taj Lands End, Bandra on May 6, 2016. The esteemed panelists included **Ashish Chauhan**, MD and CEO of Bombay Stock Exchange, **Dr. Shriram Nene**, Washington University and UCLA trained cardiovascular surgeon, healthcare innovator and E-learning platform creator, **Sandeep Naik**, MD of General Atlantic, **Kirat Patel**, Executive Director of Alkyl Amines Chemicals and **Rajiv Kacholia**, CEO of KGS Agro Group.

The discussion was moderated by **Craig Johnson**, Head of American School of Bombay. The panelists stressed on the importance of innovation and entrepreneurship and insisted that it is the sole factor that would lead India's 'Make in India' campaign to success.

Calling 'Make-in-India' a step in the right direction, Sandeep Naik said the campaign will succeed only when both the public and the private sector creates employment. *"India doesn't produce great leaders because we are not pushed enough to think out-of-the-box. We are great managers and CEOs when we have to solve a known problem but when we face an unknown problem, we succumb to the pressure. We have to teach our children to learn beyond textbooks,"* he said.

He also pointed out that today most of the good leaders are coming from tier 2 and tier 3 cities and not from metros. *"We need to train our youngsters to take risks, to travel the untraveled path and to create new enterprises. It will be a great boost to Make-in-India,"* he stressed.

Praising the IIT Bombay and Washington University's joint Executive MBA program (EMBA) which aims at training the new generation of leaders to develop global outlook and understanding of global dynamics, Dr Ajit Ranade, chief economic advisor to Aditya Birla Group, noted economist and political analyst said the concept of MBA is evolving. The benefit is of having something customized according to the need of an hour. The earlier concept of first finishing education and then starting career has changed. *"Today, people move back and forth,"* he pointed.

The joint EMBA program is an 18-month long inclusive program that is shaping careers. While IIT is a leader in providing technical education, Washington University is one of the best in management studies. *"The EMBA gives an exposure to diverse cultures which is much required in a global economy. The best part of EMBA is that it is not static and always evolving according to the need of the current scenario,"* he said.

Dr Shriram Nene, was of the opinion that everything else can be sorted out once we address the issues in education and health care sectors. Most CEOs look to find easy solutions at cheap rates. We don't employ any innovation. Courses like EMBA empower future

leaders to make the right decisions and apply creativity and innovation while finding solutions to run their business, he said.

*"We are moving from an agrarian society to an industrial one. There is a need for inclusive growth. Only when we make the weakest persons in the country a part of our success story will we succeed,"* he added.

While speaking of various initiatives at BSE like launching a business incubator and funding 72 companies to encourage entrepreneurship, Ashish Chauhan said that the environment is presently conducive since the government has controlled the fiscal deficit. *"Investment will start in the public sector like in railways, infrastructure and then private players will join. In the next 10 years we will have more wealth than we had before and we will have more jobs too. There will be jobs that we have not even thought of,"* he pointed.

Kirat Patel was very optimistic. He said, *"The government is working below the surface to clear a lot of things. I like to believe that in a year, we will see some results".* He was supported by Rajiv Kacholia. *"I meet lot of founders of start-ups. There are skill gaps. Many don't know how to commercialize their product. This EMBA will help bridge those gaps. In fact, we need more such programs,"* he said. The panel discussion was attended by faculty and functionaries of IIT Bombay and WUSTL, Industry stalwarts, and friends from media.

## Campus Visit Of Newly-Appointed Chairman Of BoG, IIT Bombay

Newly-appointed Chairman of Board of Governors Mr. Dilip Shanghvi visited the IIT Bombay Campus for the first time on May 3, 2016. He met the Director, Deputy Directors, Deans, Registrar and other Institute functionaries to understand the day-to-day functioning of the Institute and the way forward. After the meeting, Prof. Devang V. Khakhar, Director and other functionaries accompanied him for a campus tour.



Mr. Dilip Shanghvi, Chairman of Board of Governors of IIT Bombay along with the Director of IITB Prof. Devang Khakhar and other Institute functionaries.



## Institute Valedictory Function For The Graduating Batch

The Institute Valedictory Function for the Graduating batch (Class of 2016) was held on April 28, 2016 on campus. The function was jointly organized by the Dean (ACR) and Dean (SA) office in association with IIT Bombay Alumni Association. The Chief Guest for the occasion was Padmashree Prof. D B Phatak. The event witnessed graduating students taking the "Give One for IIT Bombay" pledge, thus cementing their bond as a concerned stakeholder of the Institute family forever.



Valedictory Function for the Graduating batch (Class of 2016)



(L-R) Prof. Soumya Mukherjee, Dean (SA), Prof. D.V. Khakhar, Director, Padmashree Prof. D.B. Phatak and Prof. Ravi Sinha (Dean ACR) at the Valedictory Function

## Research in focus

Proteome profiling of severe vivax malaria patients has revealed that several proteins — such as superoxide dismutase, vitronectin, titin, apolipoprotein E, serum amyloid A, and haptoglobin — could be potential predictive markers of malaria severity.

Researchers from IIT Bombay say the profiling — the first such comprehensive clinicopathological analysis — provides evidence for modulation of many physiological pathways in severe vivax malaria. These pathways include oxidative stress, cytoskeletal regulation, lipid metabolism and complement cascades.

In spite of the substantial global burden of *Plasmodium vivax* infection and its economic impact, vivax malaria has been largely neglected. Mechanisms that trigger the transition from uncomplicated to fatal severe vivax malaria are largely obscure. Proteomics has remarkable potential to accelerate malaria research through identification of next generation biomarkers and therapeutic targets.

The researchers performed proteomics analysis of uncomplicated (non-severe) and complicated (severe) vivax malaria patients alongside healthy controls. They also analysed two other febrile infectious

## Proteomics Cue To Severe Vivax Malaria

diseases from Maharashtra, Rajasthan and West Bengal regions of India. The comprehensive multi-disciplinary study identified some possible cues for severe *Plasmodium vivax* infection.

The researchers demonstrated that an abundance of free-radical scavenging and anti-oxidative enzymes points to higher oxidative stress in severe malaria patients. Moreover, elevated serum levels of various muscle proteins indicate the possibility of muscle damage and microvasculature lesions in severe malaria.

The findings will help better understand the pathogenesis of severe vivax malaria and may facilitate clinical diagnosis of severe malaria-associated symptoms.

*The article appeared in the Nature India and has been reproduced for your convenience*

<http://www.natureasia.com/en/nindia/article/10.1038/nindia.2016.54>.

*The work was originally published in Nature Scientific Report and was authored by*

*Prof. Sanjeeva Srivastava, Department of Bioscience and Bioengineering and his team.*

*For more details visit*

<http://www.nature.com/articles/srep24557>.

## Industry, Indian Army And Academia Deliberations On Defence Technologies

IIT Bombay along with FICCI organized **Industry, Indian Army and Academia Deliberations on Defence Technologies** on May 28, 2016 at Professor B. Nag Auditorium in VMCC at IIT campus. Vivek Pandit from FICCI welcomed the audience. Prof. Ravi Sinha, Dean (Alumni & Corporate Relations), gave an overview of the research activities and industry collaborations at IIT Bombay.

During the half-day deliberation, **Lt. Gen. Subrata Saha, Uttam Yudh Seva Medal, Yudh Seva Medal, Vishist Seva Medal, Deputy Chief of the Army Staff (Planning & Systems)** and senior officers of Indian Army apprised start-ups, niche technology players and SMEs especially from the local industry about the vision and expectations of the Indian Army.



L-R Moderator : Prof. Asim Tewari of NCAIR (standing on podium), Prof. Milind Atrey, Lt. Gen. Subrata Saha, Prof. Amol Gokhale and Prof. K. Narasimhan

The officers of the Indian Army shared details of its operational challenges to industry through presentation and short films.

There was a panel discussion on '**Strategies to Facilitate Research Collaborations and Technology Insertion**'. The panel included Lt. Gen. Saha, Prof. Amol Gokhale, Prof. K. Narasimhan and Prof. Milind Atrey. The session was moderated by Prof. Asim Tewari, Professor In-charge of National Centre For Aerospace Innovation And Research in IIT Bombay. A Q&A session following the panel discussion offered the audience an opportunity to interact with the panelists. Professor Asim Tewari summed up the day's interaction and highlighted the way forward.



## II Batch of IIT Bombay & WUSTL Executive MBA Programme Launched



Dignitaries at the launch of second EMBA Programme

At a time when an increasing number of foreign universities are lining up in India to offer courses to attract the Rs 350-crore executive education space, IIT Bombay and Washington University have raced ahead by launching the second batch of their unique executive MBA programme that focuses on creating global leaders for a bright future.

Director of IIT Bombay Prof. Devang Khakhar called this launch a new chapter for the Institute's School of Management. *"Our endeavour is to deliver top-quality education and maintain our reputation for excellence. The students will gain leadership qualities to help them become*

*entrepreneurs and global leaders,"* he said.

The joint EMBA program is an 18-month long inclusive programme that shapes careers. While IIT is a leader in providing technical education, Washington University is one of the best in management studies. The EMBA course gives an exposure to diverse cultures which is much required in a global economy. It will train a new generation of leaders with a global outlook and understanding of global dynamics.

The second batch comprising 28 students also has an equally rich student profile and diversity. Over 60 percent of the class are executives at the senior vice president level and higher. Students have varied academic backgrounds. One of the students Dr. Ravi Mohanka is an experienced surgeon. Head of Technology at Videocon Industries Ltd. Mr Akshay Dhoot has also enrolled for the course.

Chancellor of Washington University in St. Louis Dr. Mark Wrighton welcomed the new batch while saying, *"You can learn from your teachers as well as from each other. Commitment is an important dimension of success,"* he pointed.

*"The joint global degree is meant to equip executives with the tools, education and confidence to work in any industry in any part of the world as leaders in the new landscape of economic development. This also enables them to apply the concepts they learn while taking the course and know its impact in real-time,"* pointed Prof. S. Bhargava, Head of Shailesh J. Mehta School of Management at IIT Bombay.

The EMBA programme is modelled after Washington University's internationally-recognized sister programmes in the U.S. and China. Olin's China program is ranked no. 6 by Financial Times. The 18-month program is for working professionals who can continue working while attending courses four days per month, from Thursday morning through Sunday evening, at Hotel Taj Lands End in Mumbai. The programme ends with a two-week capstone experience at Washington University in St. Louis. World-class professors conduct lectures for the first such Indo-US programme. Not only are the course offerings extraordinarily rich but the institute boasts of some of the best faculty in the country. The curriculum is rooted in innovation and leadership and students really get a chance to deploy the critical thinking skills they learn through numerous practical opportunities.

Mahendra Gupta, Dean of the Olin Business School said, *"These students will be an important part of our robust international Executive MBA network in India, the United States and China. We look forward to watching this class take initiatives, transform and lead."*

Kurt Dirks, Dean, said, *"We want this programme to be recognized as the best E-MBA programme and our students are our ambassadors."*

Kiran Shesh, CEO of IITB-WUSTL Research and Educational Academy said, *"These students bring a depth of experience from a diverse set of industries to march ahead towards preparing themselves as the global leaders."*

## Institute Colloquium



**Mr. P. Ramkumar**, General Manager, Materials Management Activities, Vikram Sarabhai Space Centre, Trivandrum delivered the Inaugural Lecture of the Steel Colloquium Series on *"Steel for Space Applications"* on May 24, 2016.



**Prof. Seshadri Seetharaman**, Professor Emeritus, The Royal Institute of Technology, Stockholm, & Distinguished Visiting Professor, IIT Bombay, delivered the Steel Colloquium lecture Series on *"Cleaning the 'Backyard'-A Technological Challenge"* on June 24, 2016.

## Departmental Lectures

## Department of Electrical Engineering



**Prof. Sujit K. Biswas**, Jadavpur University, Kolkata delivered the lecture series on *"Design and Assembly Issues of Power Electronic Converters and its Magnetic Components"* during May 16 – 18, 2016.

## Student News

## IIT Bombay Students Win Field Challenge Competition



Students of the Earth Science department receiving the prize at EAGE Convention 2016

A team of three students of Earth Science Department at IIT Bombay secured third position in the "FIELD Challenge" competition organized by EAGE (European Association of Geoscience & Engineering) during its annual International Convention on 30th May 2016. The team included Rakesh Saraiya. M. Sc. (Geology), 2nd yr, Gaurav Gairola. M. Tech (Petroleum Geoscience), 2nd year and Akshaya Deshpande, student of PhD (Geophysics). The team also won third prize in the Annual Geo-Quiz completion there.



## Electric Racing Car Orca Launched



IIT Bombay Racing Team launched new Car 'Orca'

After successfully launching four electric cars, IIT Bombay Racing Team launched their new car 'Orca' (English meaning – Killer whale) on May 29, 2016 at the PC Saxena Auditorium in IIT Campus, Powai. Orca is designed to get the maximum acceleration possible. With a theoretical acceleration of **0 to 100 kmph in 3.47 seconds**, Orca is much faster than many models of powerful cars of companies like Porsche, Tesla and Lamborghini.

The IIT Bombay Racing is a team of 75 students from IIT Bombay, united by a passion to design and fabricate electric race cars and driven to represent India at the Formula Student UK (FSUK). These students range from 10 different engineering disciplines. The team has a vision to "revolutionise electric mobility in India- focusing on sustainable technologies and Innovation".

They build an electric race car every year and participate in the prestigious competition Formula Student UK (FSUK) in July every year. This competition is the pinnacle of world motorsport competition and is held on the tracks of Silverstone UK and over 100 student teams from around the globe participate in this. Both IC engine and electric cars run in this competition and IIT Bombay Racing participates with an all-electric rear wheel driven car. The teams are assessed on the basis of engineering, design, cost as well as dynamic performance of the car. Last year's car EVo 4 had received great response at the event.

Orca is IIT Bombay Racing's fifth entry at Formula Student UK. The major learning from last year was the need for reliability in implementing major changes and

therefore the team decided to adopt a slow and steady approach towards optimizing all aspects of EVo 4.0 and incorporating extensive testing to introduce any major design change. Focusing on ensuring manifestation of designs, the design decisions were taken based on lap-time simulations and score computations to achieve the target of Top 20 finish (Static points target = 230/325, Dynamic points target = 300/675). Through introduction of an improved vehicle model, steering simulations and carbon-fiber bodyworks, emphasis has been placed on improving the handling and aesthetics.

- Attention has been given to reducing the yaw inertia, CG and weight for faster cornering. Extremely Low CG of 271mm
- Custom-made aluminium honeycomb impact attenuator
- Steel tube spaceframe with a high torsional rigidity of 166 N-m/deg
- 2 high power (40kW) high torque(40 N-m) BLDC motors allowing acceleration of XXX
- High energy density Lithium Polymer cells with battery pack voltage of 389V
- In-house carbon fibre manufacturing of various components such as the bodypanels, seat and accumulator pack walls leading to large amount of weight reduction with no decrease in strength. Electronic differential with torque vectoring has been used with the aim of improving response of time of the vehicle and utilizing maximum available traction.

## Research in focus

Prof. Shyam Asolekar from the Centre for Environmental Science & Engineering and his research team comprising of PhD and MTech students and research engineers Dinesh Kumar, Rahul Sutar, Dheeraj Kumar, Ketan Kamble and Anurag Singh and advised by Yogen Parikh have created a wetland at the Institute's Powai campus that processes approximately 30,000 litres of sewage per day and converts it in to re-usable water. The project, called the Constructed Wetland (CW) plan, started functioning in November 2013.

The project, having dimensions of 13 m length, 3 m width and 0.6 m depth, approximately 450 sq ft wetland bed covered by 1000 plants acts as a natural treatment system that does not require electrical energy or chemicals to clean waste water. The treated water can be used for a variety of reusable purposes including drinking water for animals, irrigation in farms and gardens, and water for flushing and washing.

## Solving Water Crisis By Artificial Wetlands



Co-funded by the European Commission and IIT-B, the project cost for developing this technology as well as building this pilot plant was close to Rs 4 crore. Due to the enormous potential of the project, research into various plants that can be used for the wetlands has been sanctioned across multiple locations in the state. While it obviously can't solve the current crisis, it has enormous long-term potential in helping the country clean up its highly polluted public water supplies in a cost-effective & sustainable manner.

## Design Degree Show 2016 at IIT Bombay

The Industrial Design Centre (IDC) at IIT Bombay organized the Design & Degree Show 2016 at VMCC, IIT Campus from June 19 to 21, 2016. Noted philanthropist Mrs. Rajashree Birla inaugurated the event. The show included a two-day conference, where 16 eminent designers from a wide range of specializations ranging from user interface and human computer interaction, communication design, industrial design, animation to mobility and vehicle design shared their vision, experiences and case studies.

This event also showcased the design projects by the outgoing batch of Master of Design (MDes) students of five streams at the The Industrial Design Centre, IIT Bombay. It was attended by design professionals, academicians, design students from various institutes, experts in various fields related to design, writers, artists, media professionals and general public interested in design.



Dignitaries present during the inauguration of DDS 2016.



Exhibits displayed by the IDC Students during DDS 2016



## IIT Bombay celebrates second International Day of Yoga



Students, Staff and faculty members performing Yoga during the International Yoga Day Celebration

More than 200 persons including faculty members, staff and students of IIT Bombay participated in Common Yoga Protocol (CYP) and Yogathon (a challenge to complete 108 suryanamaskars) on June 21, 2016.

The event was organised by IIT Bombay's Wellness Club - Yogastha from 7 am to 9 am. 175 persons participated in Yogathon, including 50 NCC students from the campus school. The practice sessions for Yogathon had started from June 2. The campus community participated whole-heartedly. The Chief Guest for the event was renowned researcher Dr. Shirley Telles. She delivered a talk on 'Applications of Yoga in daily life - from a research-based perspective' on June 20 to inspire the young scientific minds to

adopt yoga in their lives. The talk was followed by interesting Q and A session.

The 'Yoga Week' started on June 15 and ended on June 21. At the onset, an acclaimed documentary "History of Yoga - the Path of My Ancestors" was showcased.

Yogastha, the Wellness Club of IIT Bombay Sports Council, was officially formed last year on first International Day of Yoga and has been moving ahead with its wellness mission by conducting regular yoga classes and special wellness sessions throughout the year. This year, 'Summer School of Yoga' was started by IIT Bombay Sports Council and Yogastha to educate the young bright minds to attain a holistic balance in life.

## Awards and Distinctions

**Prof. Satish Agnihotri**, Centre for Technology Alternative in Rural Areas (CTARA), has been appointed as a Member on the Central Advisory Committee of the Central Electricity Regulatory Commission.



**Prof. Suvam Kulkarni**, Department of Chemistry, has been admitted as a Fellow of Royal Society of Chemistry (FRSc).



**Prof. Sourav Pal**, Department of Chemistry, has been nominated as Visiting Professor in Chemistry at Gauhati University. He has also been nominated as a member to the School Board of School of Chemistry of University of Hyderabad.



**Prof. Subhananda Chakrabarti**, Department of Electrical Engineering, has been appointed to the editorial board of IEEE Journal of Electron Devices Society.



**Prof. Ruchi Anand**, Department of Chemistry, has been invited to join the Editorial Board of ACS Sensors.



**Prof. Ronita Bardhan**, Centre for Urban Science & Engineering, been awarded with the fellowship "Building Energy Efficiency Higher & Advanced Network (BHAVAN)" by the Department of Science and Technology, Government of India and the Indo-U.S. Science and Technology Forum (IUSSTF).



**Prof. Nand Kishore**, Department of Chemistry has been appointed as a Member of the Editorial Board of the Journal Protein and Peptide Letters.



**Prof. Deepankar Choudhury**, Department of Civil Engineering, has been selected by the International Journal of Geomechanics as an ASCE 2015 Outstanding Reviewer.



The collaborative efforts of **Prof. I. N. N. Namboothiri**, Department of Chemistry and researchers at the Ariel University and Weizmann Institute, Israel have resulted in the development of a novel technique for membrane protein purification. This technology development was presented recently at the Techconnect event in Washington DC, USA. It was identified as one of the top 15% technologies submitted and selected for the Techconnect Innovation Award, 2016.



**Prof. Ashutosh Gandhi**, Department of Metallurgical Engineering and Materials Science has been recognised by SCRIPTA MATERIALIA 2015 for his significant contributions made to the quality of the journal.



**Dr. P. K. Patwardhan Technology Development Award** for the year 2015 is conferred upon the technology development effort titled 'A remotely operated ground vehicle (Rover) for Indian Army' by Prof. Anirban Guha and team, Department of Mechanical Engineering. The team included Prof. C. Amarnath, Prof. B. Seth, Prof. K. Kurien Issac and Mr. Abhay Kharade (Project Staff).

## IITB ranks 35<sup>th</sup> in the World, 2<sup>nd</sup> in India

The Indian Institute of Technology Bombay (IITB) has moved up from rank no. 46 last year to rank no. 35 this year in the Quacquarelli Symonds (QS) University Rankings Asia. IITB ranks second in India, two ranks below the Indian Institute of Science (IISc) in Bangalore at 33. IIT Bombay's overall score is 76 out of 100. The Institute has a score of 87.8 in academic reputation, 98.8 in employer reputation and 100 in Staff with PhD, all scores out of a maximum of 100.

Attributing the rise to a focus on excellence in education and research, Professor Devang Khakhar said, "Our rigorous academic programmes and our strong linkages with industry prepare our students very well for employment. We have been successful in recruiting excellent faculty members and our healthy faculty/ student ratio is another major factor for moving up in the rankings". The number of foreign students studying in IITB has also increased.



## Faculty News

## Publications:

1. Apurva Atak, Kanika Mehta, Aishwarya Rao, Kishore Gollapalli, K. P. Manubhai, Mayuri Gandhi, Monalisha Nayak et al. published a paper "Targeted Proteomics Workshop and International Symposium (IIT Bombay, Mumbai, India): An Accelerator for Global Proteomics" in *Omics: A Journal of Integrative Biology*, 20, no. 4, April 2016: 199–201. doi:10.1089/omi.2016.0037.

2. Shabarni Gupta, K. P. Manubhai, Vishwesh Kulkarni and **Prof. Sanjeeva Srivastava** published an article "An Overview of Innovations and Industrial Solutions in Protein Microarray Technology." in *Proteomics* 16, no. 8, April 2016: 1297–1308. doi:10.1002/pmic.201500429.

3. Debasish Paul, Venkatesh Chanukuppa, Panga Jaipal Reddy, Khushman Taunk, Ragini Adhav, **Prof. Sanjeeva Srivastava**, Manas Kumar Santra, and Srikanth Rapole published a paper "Global Proteomic Profiling Identifies Etoposide Chemoresistance Markers in Non-Small Cell Lung Carcinoma." in *Journal of Proteomics* 138, April 14, 2016: 95–105. doi:10.1016/j.jprot.2016.02.008.

4. **Prof. Sanjeeva Srivastava** published a special issue on "Protein Arrays" and an editorial "Protein Arrays: Promises and Potential for the Translational Research." in *Proteomics* 16, no. 8 (April 2016): 1191–92. doi:10.1002/pmic.201600131).

5. **Prof. Uday N. Gaitonde**, Bhalachandra L. Tembe and Sachin K. Kamble presented a paper titled *Computer Assisted Collaborative Concept Mapping In Engineering* in an International

Conference "Educational and Information Technology 2016 (ICEIT 2016)" organized by American Society for Research in Paris during March 17-18, 2016.

6. **Prof. Neeraj Kumbhakarna** and **Prof. Arindrajit Chowdhury**, Department of Mechanical Engineering, presented a review paper entitled "Pyrolysis of Energetic Ionic Liquids based on Nitrogen-rich Heterocycles" in *Current Organic Chemistry*, 2016, Vol. 20

## Conference/Seminars Workshops



**Dr. Paromita Kundu**, Helmholtz Postdoc Researcher, Peter Gruenberg Institute, Germany held a seminar on 'Emerging Strategies for Pristine Nanohybrid Synthesis, their Structural Investigation and Potential Applications' on May 18, 2016. In order to obtain a wider spectrum of properties or for multifunctionality, combining different nanostructures to obtain a functional hybrid is an ever increasing demand in nanoscience/technology. The challenge lies in obtaining a good control over the structure and chemistry of the surface/interfaces in the hybrid which plays a significant role in determining its properties and hence the performance. Moreover, analyzing the external shape and internal arrangement of a

nanostructured materials can lead us to understand its behaviour and unfurl the possibilities to tune them for desired applications where electron microscopy emerged as a powerful technique to quantify these aspects of a nanostructure. She presented a strategy for designing various noble metal nanohybrids based on ZnO, SiO<sub>2</sub> and carbon support, their improved performance in catalysis and structural nanoscopic analysis in 2D and 3D. Also, a few interesting aspects of the Au based SiO<sub>2</sub> nanohybrid as an emerging candidate in neuroengineering were discussed.



**Dr. Anant Kumar Giri**, Madras Institute of Development Studies, Chennai held a seminar on 'Non-Violence in Relations and Non-Injury in Modes of Thinking: Transforming the Subjective and the Objective and the Calling of Transpositional Subjectobjectivity' on May 27, 2016. His areas of research interest are: New Horizons of Human Development and Social Transformations in India and the World: Dialogues, Dignity and Responsibility; Religion, Spiritual Mobilizations and Social Transformations; Social Theory and Social Movements: Criticism, Creativity and the Contemporary Dialectics of Transformations; Creative Transformations in education, philosophy and literature. His personal Webpage is found at: <http://www.mids.ac.in/ananta.htm>



**Dr. Aparna Rayaprol**, Department of Sociology, University of Hyderabad held a seminar on 'Feminist Research and Sociology' on June 7, 2016. Her areas of academic interest include gender studies, Indian diaspora, qualitative research methods and urban sociology. Earlier, she was an Associate Professor in Research Methodology at the Tata Institute for Social Sciences in Mumbai. She was a faculty on the Semester at Sea Fall 2003 Voyage which went around the world (10 countries) teaching courses in sociology. Her PhD was from the University of Pittsburgh. Her research on second generation Indian-Americans was funded initially by an ICSSR grant on Indian diaspora and Princeton University at the Center for the Study of American Religion in 1998-99. She continues to work in the area of diaspora and gender as well as globalization and gender in the Indian context. She is the author of *Negotiating Identities: Women in the Indian Diaspora*, New Delhi, Oxford University Press, 1997. She has been with Study in India Program (SIP) at the University of Hyderabad since its inception in 1998 and has been closely involved with its academic as well as administrative responsibilities. She has been conceptualizing and teaching new courses for SIP at the University of Hyderabad since its inception in 1998 and has been closely involved with its academic as well as administrative responsibilities. She has been conceptualizing and teaching new courses for SIP and coordinating the academic activities between teachers and students as well as reciprocal institutions.

The Institute is focused and is working to enhance its international engagement in education and research, which will contribute towards building a high quality academic environment. Our moto is 'to enhance our engagement with the International Scientific and Academic Community'. Keeping this goal in mind, the Institute organized joint scientific/research workshops.



a. A joint workshop by IIT Bombay and Curtin University, Australia was held at the Institute on May 9, 2016 at VMCC, Board Room. The theme of the workshop was '**Smart Cities**' and '**Energy Technologies**'. The workshop was coordinated by Prof. Ronita Bardhan (for

Smart Cities) and Prof. Sreenivas Seethamraju (for Energy Technologies). From Curtin University, 11 faculty members attended the workshop and presented their technical talk. 9 faculty members of IIT Bombay participated.

b. IIT Bombay, National Chiao Tung University and National Taiwan University held a joint workshop on May 16 and 17, 2016 at VMCC. The theme of the workshop was 'Nanodevices'. The 2-day workshop was coordinated by Prof. Swaroop Ganguly and Prof. Aswani Yella. 12



faculty members from Taiwan attended the workshop including Director, S&T, Taiwan Embassy. Students and faculty members made presentations on their research areas for further collaborative research.



c. A joint workshop by IIT Bombay and **Samara** State Aerospace University, Russia was held on May 25 and 26, 2016 at VMCC. The motive of the workshop was to find areas of joint research collaboration and build a good relationship between

the two institutions for further enhancement in education and research. A team of 6 Russian faculty members from SSA University attended the workshop and presented their areas of research and 7 faculty members from IIT Bombay made their technical presentations for possible joint collaboration in the interested research areas.



## NOTIFICATION

**Prof. Uday Khedkar**, Department of Computer Science & Engineering, has been appointed as Head of the Department w.e.f. April 28, 2016.



**Prof. Rinti Banerjee**, Department of Biosciences & Bioengineering, has been appointed as Head of the Department w.e.f. June 1, 2016.



**Dr. Edwin M. Gnanaraj, Sr.** Sports Officer, Gymkhana, has been appointed as In-charge of the Student Gymkhana w.e.f. April 29, 2016.



**Ms. Soumini Soman** has been promoted as Assistant Registrar w.e.f. May 9, 2016 and is posted in Accounts Section.



**Mr. A.P. Venkateswaran** has been promoted as Assistant Registrar w.e.f. May 9, 2016 and is posted in MMD



**Ms. Vrushali Sansare** has been promoted as Assistant Registrar w.e.f. May 9, 2016 and is posted in Administration Section.



**Mr. S.L. Dhiwar** has been promoted as Assistant Registrar w.e.f. May 9, 2016 and is posted to IRCC.



## Appointments

**Dr. Thrinathreddy Ramireddy**, Department of Metallurgical Engineering & Materials Science, has been appointed as Post Doctoral Fellow on May 2, 2016.



**Dr. Harsha K.V.**, Department of Mathematics, has been appointed as Post Doctoral Fellow on May 3, 2016.



**Dr. Rajender Nallagonda**, Department of Chemistry, has been appointed as Post Doctoral Fellow on May 23, 2016.



**Dr. Subhamoy Sen**, Department of Civil Engineering, has been appointed as Post Doctoral Fellow on May 26, 2016.



**Dr. Gopalakrishnan R.**, Department of Chemistry, has been appointed as Post Doctoral Fellow on May 27, 2016.



**Dr. Lok P. Tripathi**, Department of Mathematics, has been appointed as Post Doctoral Fellow on May 30, 2016.



**Dr. Prashant Kumar**, Department of Metallurgical Engineering & Materials Science, has been appointed as Post Doctoral Fellow on June 3, 2016.



**Dr. J. Praveen Kumar**, Department of Chemical Engineering, has been appointed as Post Doctoral Fellow on June 6, 2016.



**Dr. Debasish Sengupta**, Department of Chemistry, has been appointed as Post Doctoral Fellow on June 8, 2016.



**Dr. Sonal Thengane**, Tata Centre for Technology and Design, has been appointed as Post Doctoral Fellow on June 8, 2016.



**Dr. Alka Pareek**, Department of Electrical Engineering, has been appointed as Post Doctoral Fellow on June 17, 2016.



**Dr. Ramesh Ade**, Department of Metallurgical Engineering and Materials Science, has been appointed as Post Doctoral Fellow on June 20, 2016.



**Dr. Sarvesh Kumar Srivastava**, Department of Biosciences and Bioengineering, has been appointed as Honorary Post Doctoral Fellow under DBT-MIT Visiting Scholars Program on June 22, 2016.



**Dr. Joydeep Ghosh**, Department of Electrical Engineering, has been appointed as Post Doctoral Fellow on June 23, 2016.



**Dr. Aparna Agrawal**, Department of Physics, has been appointed as Post Doctoral Fellow on June 27, 2016.



**Dr. Madhu Babu Tatina**, Department of Chemistry, has been appointed as Post Doctoral Fellow on June 20, 2016



**Dr. Priya Vashisth**, Wadhvani Research Centre for Bioengineering, has been appointed as Post Doctoral Fellow on June 30, 2016



#### Retirements on May 31, 2016

**Dr. Indu Saxena**, Deputy Registrar, Administration, retired after 20 years of service.



**Mr. Madhukar P. Shinde**, Assistant Registrar, Administration, retired after 39 years of service.



**Ms. Sunanda S. Mainkar**, Jr. Superintendent, Accounts Section, retired after 40 years of service.



**Mr. P.S. Chautmol, Jr.** Superintendent, Department of Civil Engineering, retired after 25 years of service.



**Mr. Ramesh D. Jadhav**, Library Attdt.(SG), Centre for Environment Science & Engineering, retired after 37 years of service.



**Mr. Dhondiram K. Chalke, Sr.** Helper, Department of Civil Engineering, retired after 35 years of service.



**Mr. Mela D. Solanki**, Sr. Cleaner, Hospital, retired after 37 years of service



**Mr. Himmat Nana Solanki**, Cleaner (SG), Hospital, retired after 37 years of service.



#### Retirements on June 30, 2016

**Mr. Mohan S. Bhan**, Superintendent, Department of Chemical Engineering, retired after 41 years of service.



**Mr. Deepak R. Pai**, Superintendent, Security Section, retired after 40 years of service.



**Ms. Sumathi Rajan, Jr.** Superintendent, Materials Management Division, retired after 40 years of service.



**Mr. Varghese T. Cheruparambil**, Jr. Superintendent, Hostels, retired after 32 years of service



**Mr. Shivaji R. Morey**, Security Inspector, Security Section, retired after 37 years of service.



**Mr. Tanaji R. More**, Attendant (SG), Hospital, retired after 36 years of service.



**Mr. Ravikant V. More**, Attendant (SG), Administration, retired after 36 years of service.



**Mr. Kishan L. Waghmare**, Helper, Estate Office, retired after 24 years of service.





**CEP courses scheduled during July and August 2016**

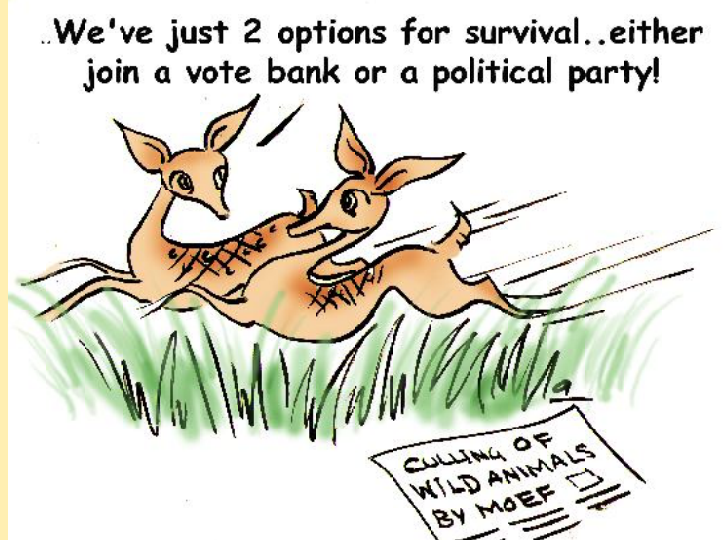
No.	Course Title	Course Coordinator / Department	Duration
1	EXPO CD	Prof. Ravi Poovaiah, Department of Industrial Design Centre	July 21 – 23, 2016 (3 days)
2	Soil Dynamics And Machine Foundations	Prof. Deepankar Choudhury, Department of Civil Engineering	July 18-21, 2016 (4 days)
3	State Estimation: Theory And Applications	Prof. Mani Bhushan, Department of Chemical Engineering	18.7.2016 (4 months)
4	Advanced Engineering Dynamics	Prof. V. Kartik, Department of Mechanical Engineering	18.7.2016 (4 months)
5	Aqueous Corrosion And Its Control	DR V.S. Raja, Department of Metallurgical Engineering and Materials Science	18.7.2016 (4 months)
6	Advanced Transport Phenomena	Prof. Jyoti R. Seth, Department of Chemical Engineering	18.7.2016 (4 months)
7	Finite Element and Boundary Element Methods	Prof. Seshu S Pasumarthy, Department of Mechanical Engineering	18.7.2016 (4 months)
8	Radiating Systems	Prof. Girish Kumar, Department of Electrical Engineering	18.7.2016 (4 months)
9	Environmental Geomechanics	Prof. Devendra Narain Singh, Department of Civil Engineering	18.7.2016 (4 months)
10	Applied Linear Algebra	Prof. Harish Pillai, Department of Electrical Engineering	18.7.2016 (4 months)
11	Electronic Systems Design	Prof. P.C. Pandey, Department of Electrical Engineering	18.7.2016 (4 months)
12	Foundation of VLSI Cad	Prof. Sachin Patkar, Department of Electrical Engineering	18.7.2016 (4 months)
13	A First Course in Optimization	Prof. Vivek S. Borkar, Department of Electrical Engineering	18.7.2016 (4 months)
14	Applied Mathematical Analysis In Engineering	Prof. Debasattam Pal, Department of Electrical Engineering	19.7.2016 (4 months)
15	Digital Signal Processing - System Design And Implementation	Prof. V.M. Gadre Department of Electrical Engineering	19.7.2016 (4 months)
16	VLSI Technology	Prof. Udayan Ganguly, Department of Electrical Engineering	19.7.2016 (4 months)
17	Power Electronics -	Prof. Anshuman Shukla, Department of Electrical Engineering	19.7.2016 (4 months)
18	Multivariable Control Systems	Prof. M. Belur, Department of Electrical Engineering	19.7.2016 (4 months)
19	Estimation And Identification	Prof. Navin Khaneja, Department of Electrical Engineering	19.7.2016 (4 months)
20	Microwave Integrated Circuits	Prof. J. Mukherjee, Department of Electrical Engineering	19.7.2016 (4 months)
21	Statistical Signal Analysis	Prof. J.U. Nair, Department of Electrical Engineering	19.7.2016 (4 months)
22	Bio Sensors & Biomems	Prof. Pradeep R. Nair, Department of Electrical Engineering	19.7.2016 (4 months)
23	XIV Batch Of Executive Program in Management With Specialization In Marketing And HRM (EPM MHRM)	Prof. S Bhargava, SJM School of Management	30.7.2016 (11 months)
24	Analytics For Management	Prof. Usha Ananthakumar, SJM School of Management	August 1-4, 2016 (4 days)
25	Sustainable Engineering: From Concept To Deisgn Solutions	Prof. Yogendra Shastri, Department of Chemical Engineering	August 3-5, 2016 (3 days)
26	3d Printing: A Disruptive Technology Of This Era	Prof. K.P. Karunakaran, Department of Mechanical Engineering	August 22-23 (2 days)
27	Analysis Of Research Problem Through Design Of Experiments	Prof. S.S. Joshi, Department of Mechanical Engineering	August 13 – 17, 2016 (5 days)
28	EXPO PDI	Prof. Ravi Poovaiah, Department of Industrial Design Centre	August 25 – 27, 2016 (3 days)
29	Optimizatin Techniques	Prof. Rahul J. Patil SJM School of Management	August 26 – 27, 2016 (2 days)

## In the Wilderness



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PPR Section

## Salt'n Pepper by Dr. Arun Inamdar



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BOOK POST

