



Campus diary

February - March 2014

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INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

IIT Bombay to establish an Entrepreneurship Centre



(L-R) Prof. UAYajnik, Dean(SA), Mr. Alexander Blass, CEO, Innovation Institute of America, Prof. DV Khakhar, Director, IITBombay, Mr. Bharat Desai, Chairman and Co-founder, Syntel, Prof. Anand Kusre, SJMSOM and Prof. Ravi Sinha, Dean (ACR), IITB

In a major leap towards encouraging the entrepreneurship spirit among its students, Indian Institute of Technology Bombay (IIT Bombay), will be soon establishing an Entrepreneurship Centre at its premises, with a generous funding received from Syntel Co-founders Mr. Bharat Desai (1975 IIT Bombay Alumnus) and Ms. Neerja Sethi, under the aegis of The DS Foundation (Desai Sethi Family Foundation). The establishment of new Centre was announced by the Director of IIT Bombay during the inaugural session of **Entrepreneurship Summit (E-Summit 2014)**, organized by the **Entrepreneurship Cell** of the Institute from February 1-2, 2014.

The new Centre, which will be named '**Desai Sethi Centre for Entrepreneurship**', will foster entrepreneurship and technology innovation through new programmes for education and research, multi-disciplinary courses, research laboratories and partnerships. Students in the programme will receive instruction and mentorship from the IITB faculty as well as distinguished guest faculty from leading international institutions. *"We are delighted to launch the **Desai Sethi Centre for Entrepreneurship** and thank the DS Foundation for their support in developing the next generation of business leaders"*, said Prof. Devang V. Khakhar, Director, IIT Bombay, adding, *"The entrepreneurship centre will enable IIT Bombay to become the hub of entrepreneurship in the region, similar to the role played by the Stanford University in the Silicon Valley."*

“ Entrepreneurship and innovation are critical for creating economic empowerment for a prosperous and peaceful world - Mr. Bharat Desai, Chairman and Co-founder, Syntel. **”**

In addition to the established disciplines at IIT Bombay, the centre will focus on emerging technology areas like Nanotech and Biotech. Prototyping facilities will enable students to convert their innovative ideas into proofs of concept. The centre's activities will cover the entrepreneurship value chain to include mentoring, micro-grants and networking with established entrepreneurs and industry leaders. It will be managed by an Advisory Board comprising faculty members, student representatives, industry professionals and two renowned international experts on entrepreneurship nominated by The DS Foundation. *"Entrepreneurship and innovation are critical for creating economic empowerment for a prosperous and peaceful world,"* said Mr. Desai, Syntel's Chairman and Co-founder. *"IITBombay has always been a hotbed for innovative thinkers, and this entrepreneurship centre offers a new channel to convert breakthrough ideas into viable business ventures."* he added.



(Mr. Bharat Desai, (1975, IIT Bombay Alumns), Chairman and Co-founder, Syntel.)

Governor General of Canada, David Johnston visits IIT Bombay and interacts with students & entrepreneurs

The Governor General of Canada, His Excellency the Right Honourable David Johnston, accompanied by a high-level delegation from Canada, visited IIT Bombay on February 28, 2014. The delegation included Mr. Bal Gosal Minister of State (Sport), Mr. Parm Gill, Member of Parliament and Parliamentary Secretary to the Minister of Veterans Affairs, Mr. Deepak Obhrai, Parliamentary Secretary to the Minister of Foreign Affairs and for International Human Rights, Mr. Peter Sutherland, President and CEO, Canada-India Business Council, and besides Mr. Stewart Beck, High Commissioner of Canada to India, among others.

Prof. Devang Khakhar, Director, IIT Bombay, in his welcome address informed, “*IIT Bombay has collaborations with several Canadian institutions and this year itself since January, we have been visited by the representatives of four such Canadian institutions.*”

In his message, His Excellency, David Johnston said, “*India tends to simplify things and produce innovations that are cost-effective. Creating a strong innovation culture requires to communicate and work together closely. A fruitful relationship between two countries can be built only on collaborations - through education.*”

Interacting with the students and faculty members of the Institute, he answered several queries ranging from encouraging entrepreneurship in academic institutions to the importance of formal education and collaborating with Canadian Institutions for students exchange. Answering a query on “What makes a great leader”, the Governor General answered that *leader is a one who allows every member of his team, who may or may not have been chosen by him, opportunities to reach their potential.* He also shared his views on “Driving Economic growth through Innovation”.



(L-R) Prof. B.K. Chakravarty, Head, IDC, H.E. David Johnston & Prof. D.V. Khakhar, Director, IIT Bombay

The Governor General visited the **Industrial Design Centre** and **Society for Innovation and Entrepreneurship (SINE)**, the Incubation Centre of IIT Bombay. He interacted with the head of SINE, Prof. Milind Atrey as well as the representatives of two of Companies incubated at SINE, **Nanosniff** and **igrenEnergi**. A group of Canadian delegates, lead by the High Commissioner, Mr. Stewart Beck, visited Aakash Lab and witnessed some of the newer areas of application of the much-acclaimed Aakash Tablet.

Tinkerers' Laboratory inaugurated at IIT Bombay

It is being long felt that the youngsters entering the field of engineering education in India are not as facile and deft with objects and things of everyday life as their peers from the developed countries. It has emerged that a significant number of Indian youth are not sufficiently “hands-on”, and this missing ingredient often slows down the pace of technology based innovation. In an endeavour towards bridging this gap, Indian Institute of Technology Bombay (IIT Bombay), has established a **Tinkerers' Laboratory** that will provide an enabling physical environment for young engineering students to go hands on and give form and expression to their innovative and creative natures.

The lab was inaugurated on March 19, 2014 by Dr. R. Chidambaram, Principal Scientific Advisor to the Government of India, in the presence of Prof. Devang Khakhar, Director, IIT Bombay, Prof. U.A. Yajnik, Dean, Students Affairs, IIT Bombay, Prof. Ravi Sinha, Dean, Alumni & Corporate Relations, IIT Bombay, among others. Speaking at the occasion, Dr. Chidambaram, said, “*One*



(L-R) Prof. D.V. Khakhar, Dr. R. Chidambaram with students at the Lab

of the aims of the Tinkerers' Lab is to empower students to take systems apart, examine the component parts and rebuilding back the original systems. It will also help the students to put together new systems, to convert creative ideas into actual engineering products.” He moreover, suggested that Design innovation may be incorporated into the new technology development. “*Design innovation can add exceptional value to product innovation and you have an excellent Industrial Design*

Centre at IIT Bombay. I hope the students using Tinkerers' Lab are able to derive benefit from the Design Centre as well," he added.

The Lab has been established with a generous funding received from the 1975 alumni batch of the Institute, who have pledged a sum of Rs 2 crore towards it.

The '75 batch alumni team will moreover, provide mentoring, run workshops and help organize lectures by famous innovators from India and abroad, for the benefit of IIT Bombay students.

The Tinkerers' Lab is being set up with an intention of promoting experimentation, creativity and innovation, and will be equipped with latest workstations of electrical and mechanical tools including power mechanical machines like Lathe, Milling, Welding, Drilling, electronic test instruments, 3-D modelling software, Small PCB manufacturing unit, several workbenches, several single board computers such as Arduino boards, etc. It will moreover, allow students to borrow spare parts and



Group Photo with the Chief Guest Dr. R. Chidambaram, Prof. D.V. Khakhar, Faculty members and students.

electrical circuits from its store and would provide latest mechanical and electrical tools to build and to test electro-mechanical systems from small to big projects like robots, flying machines, and biometric systems, to cite few examples.

The facility, which will be managed by the students (Students' Technical Activities Body), is open to all students of the Institute, irrespective of their discipline, and will be made accessible 24x7.

E-Summit 2014 attracts Student entrepreneurs from across the Country



(L-R) Prof. Ravi Sinha, Dean (ACR), Prof. U.AYajnik, Dean (SA), Mr. Alexander Blass, CEO, Innovation Institute of America Inc., Prof. D.V. Khakhar, Director, IITB, Mr. Bharat Desai, Chairman and Co-founder, Syntel, Prof. Anand Kusre, SJMSOM, IITB

The annual **Entrepreneurship Summit** (E-Summit 2014), was organized by the **Entrepreneurship Cell** of the Institute from February 1-2, 2014. Based on the theme '**Dream, Discover, Disrupt**', the Summit witnessed a confluence of visionary students, professionals, business leaders and entrepreneurs. It played a host to speaker sessions, panel discussions and workshops by stalwarts from various industries,

and included a range of networking events and a plethora of competitions. The E-Summit was granted UN patronage, this year.

The Inaugural session of the E-Summit moreover, an address on the Summit's theme by Mr. Alexander Blass, CEO of Innovative Institution of America, and an Oxford and Wharton alumnus. Speaking to the the aspiring entrepreneurs, Mr. Blass

remarked, "*Being sensitive to what people (customers) value is more important than market research. The customer may not always be able to articulate his/ her needs, it is your responsibility as innovators/ entrepreneurs to understand their requirements. But avoid the know-it-all attitude.*" The presentation of Mr. Blass was followed by a keynote address on "**Entrepreneurship & Innovation for a Better World**", by Mr. Bharat Desai, Chairman and Co-founder, Syntel

E-Summit this year offered an interesting array of events like Business Plan Competitions (including the highly popular **Eureka! Finals**, Panel Discussions, Workshops and Book Launch. Eminent personalities at the two-day event included Mr. Jim Beach (Faculty Head, The School for Startups, USA), Mr. Rana Kapoor (Founding CEO and MD, Yes Bank), Mr. Anand Kumar (Founder, Super 30 programme) and Mr. Mukund Mohan (CEO in Residence, Microsoft Accelerator) and Ms. Celina Jaitly, actor, LGBT Rights activist and UN representative, amongst others.

Distinguished alumni & young achievers felicitated on 55th Foundation Day



Indian Institute of Technology Bombay (IIT Bombay), celebrated its 55th Foundation Day on March 10, 2014. Prof. Spenta R. Wadia, Distinguished Professor and Director International Centre for Theoretical Sciences of TIFR, was the Chief Guest for the occasion and gave a talk on “End of Space-time and beyond.”

Speaking at the Foundation Day, Prof. Devang Khakhar, Director, IIT Bombay informed, “IIT Bombay continues to attract outstanding talent both as students and faculty members. The students strength at the Institute has increased from 5000 to around 9000 in last five years and almost 50% of them are postgraduate and doctoral students... Some of new developments at IITBombay include establishment of a Tinkerer’s Lab, Entrepreneurship Centre and an upcoming Research Park on Campus.”

Distinguished Alumnus Awards and **Young Alum Achievers Awards**, besides two excellence in research awards to faculty members of IIT Bombay, were given away on the occasion. The recipients of this year’s awards are as following:

Distinguished Alumnus Award winners



Dr. Ing Anil Anwikar
(Civil – C’64) Founder & Managing Director, ANWIKAR Consultant GmbH.

My mantra for success is hard work, a strong will power, sincerity towards, work, never stop learning and being humble and respectful towards others



Dr. Shyam Dighe - (Chem-C’74) President & CEO, AquaSource Technologies orporation, North Huntingdon, Pennsylvania. (Mr. Avinash Sankholkar, accepting the award on be half of Dr. Shyam Dighe)

I try to follow the advise given by my parents – take genuine interest in people you meet without expecting anything in return. It is based on the Bhagvad Gita principle of ‘K a r m a n y e Vaadhikaraste Maa Phaleshu Kadachana’



I would like to share a quote by Mr. Thomas Watson, Sr. Founder of IBM – Make a decision; any decision. If it's the wrong decision, it will stand up by itself within 30 days and slap you in the face. Then you can change it and make the right decision

Mr. Deepak Vaidya - (Chem – C'70) Chairman, Board of NobelTek, and President of RDM Equipment Co, Wooster, Ohio. (Mr. Suresh Shenoy accepting the award on behalf of Mr. Deepak Vaidya)



My mantra for success is work hard; focus on a few things that matter; and be helpful to others

Mr. Toos Daruwala - (Elect – C'77) Director (Senior Partner), McKinsey & Company (New York Office) (Prof. Anil Kulkarni, EE, accepting the award on behalf of Mr. Toos Daruwala)



My key to success is rather simple – Work hard, play hard, give back to society and enjoy your life

Mr. Suresh Shenoy - (Meta – C'72) Executive Vice President, Information Management Consultants (IMC), Inc., a McLean, Virginia, USA.



I have followed only one mantra for success – work is worship

Mr. Veerappa Baligar - (Civil – C'78) Chairman and Managing Director, Housing and Urban Development Corporation (HUDCO) (Prof. K.V.K. Rao, Head Dept Civil Engg., accepting the award in absence of Mr. Veerappa Baligar)



I believe in 'Carpe diem' and "Karmanye Vaadhikaraste Maa Phaleshu Kadachana

Mr. Ram Kelkar - (Elect – C'80) Principal, Managing Director and Global Head of Capital Markets Group, Milliman in Chicago, Illinois.



Follow your passion with an open mind and with humility!

Dr. Kasim Mookhtiar - (M.Sc-Chem- C'80) Co-founder and Chief Scientific Officer, Advinus Therapeutics Ltd., India.



I have just one advice to give-Add value to yourself every day

Mr. Ashish Kumar Chauhan - (Mech – C'89) Managing Director and Chief Executive Officer, Bombay Stock Exchange.



My mantra for success is "dream big and do not be afraid to fail

Dr. Rajesh Gokhale - (M.Sc. Biotech – C'90) Director, CSIR-Institute of Genomics and Intergrative Biology (CSIR-IGIB).

Young Achiever Alumni Award winners -



My mantra for success is be nice and be ready to fail multiple times

Dr. Sundar Iyer - (CS – C'98) Co-Founder, CEO and Member of the Board of Memoir Systems.



My mantra for success is follow your heart, do your best, trust in life to take care of the rest

Dr. Rohit Karnik - (Mech – C'02) Associate Professor, Department of Mechanical Engineering, Massachusetts Institute of Technology (MIT). (Mr. Nandkumar Karnik, Father of Dr. Rohit Karnik, accepting the award on his behalf)



A big vision, a strong work ethic and a resolute value system create long-term success. Expect short-term failures and learn from them. The silliest failures are those that stem from a lack of information – which is really a lack of effort; the gravest failures are due to a slip of values

Mr. Mayank Bawa - (CS – C'99) CEO and Co-Founder, Aster Data Systems.



I have three key points to share -
 a) Take that Chance: Few take the leap to follow their dreams, doubting whether they will make it. But you'll never know unless you take the big step. There will be situations where your actions will have different outputs. Still, believe in what you do.
 b) Solve Real Problems: Focus on solving real problems. There will be enough takers for your solutions. You will help make lives of some people better and money will follow
 c) Settle for the Best: Don't take short-cuts while building your company – keep trying for the best

Mr. Bhavish Aggarwal - (CS – C'08) Co-Founder and CEO, Ola Cabs.

Prof. S.C. Bhattacharya Award for Excellence in Pure Sciences



Prof. Sudhir R. Ghorpade, Department of Mathematics

Prof. H.H. Mathur Award for Excellence in Applied Sciences



Prof. Soumen Chakrabarti, Department of Computer Science and Engineering

Former President of Mexico, Mr. Vicente Fox visits IIT Bombay

The former President of Mexico, Mr. Vicente Fox visited IIT Bombay campus on February 12, 2014. The President was accompanied by his wife Mrs. Martha Fox. Mr. Fox also gave a TechniGraphicS Lecture during his visit on **“Contributions of IITs to India & the world: An international perspective”**

Prof. H.S Pandalai, Dy. Director (FEA), IIT Bombay, during his interaction with Mr. Fox informed him about the recent developments at IIT Bombay and its strong focus on R & D, which has enabled the institution to attract research grants worth Rs 270 crores from external agencies during last year. Prof. D.B. Phatak, head of the Aakash Tablet Project at the Institute briefed Mr. Fox about the Aakash project and how the low-cost tablet is being utilized for effective dissemination of education. Mr. Fox also made a visit to Shenoy Innovation Studio at Industrial Design Centre of IIT Bombay. He also met Deputy Director(AIA), Prof. Subhasis Choudhuri, Deans and Heads of various departments.



Mr. Vicente Fox addressing IITB students

Addressing the students of IIT Bombay, he said, *“For you students, it is a lifetime opportunity to study in an institution like IIT Bombay, which further opens plethora of avenues for you. You should dream to be happy and successful but not merely in monetary terms but also where you are able to make a difference to the society.”* While interacting with the students and institute functionaries, Mr. Fox also answered several questions raised by the students and other members of the audience on the topics ranging from social disparate to brain drain.



Mrs. Martha Fox and Mr. Vicente Fox pose with the sculptures of Dandi Marchers

“It is a great honour for us to visit a great institution like IIT Bombay, which is recognized world wide as a state-of-the-art institution,” he remarked.

Degrees awarded to Ph.D. students at a Special Ceremony



Prof. D.V. Khakhar, Director, IITB addressing the Ph.D students

Degrees were awarded to 12 Ph.D. students of Indian Institute of Technology Bombay (IIT Bombay), on successful completion of their doctoral programmes at a Conferment Ceremony held in the Institute on March 13, 2014. It is for the first time in the history of the Institution, a Conferment Ceremony was held for awarding the degrees to those Ph.D. students, who have completed all the academic requirements during the period from August 2013 to January 2014 and had requested for their degree to be awarded earlier than the 52nd Convocation, scheduled in August this year. The function was presided by Dr. Anil Kakodkar, Chairman, Board of Governors, IIT Bombay, in the presence of Prof. Devang V. Khakhar, Director, IIT Bombay and Prof. Subhasis Chaudhuri, Deputy Director (Academic and Infrastructural Affairs), among others.

Congratulating the graduating students, Dr. Kakodkar said, *“This mid-year Conferment Ceremony for the Ph.D. students is a welcome initiative as it will put an end to a long wait of several months for many students and would enable them to get their degrees and move on in their careers and lives. Ph.D. students now have many more opportunities and also a greater responsibility of taking the country forward on the path of growth.”*

There is a steady increase in the number of Ph.D. student at IIT Bombay. While there were 771 Ph.D. students on roll in the academic year 2001-02, the number rose to 1879 in the academic year 2011-12, an increase of over 150 percent in a span of just 10 years.

Speaking on the occasion, Prof. Khakhar, Director, IIT Bombay, said, *“IIT Bombay is known for attracting best of the talent. Even for our Ph.D. programmes, about 300 applications are received in each department, out of which only*



Degree recipients

10 -15 are selected, which makes it a very competitive affair and ensures that only highly talented people get in. There is an increasing focus on research at the Institute. The research funding has increased from about Rs. 56 crores to Rs. 300 crores in last five years and some of

the new facilities we have at IIT Bombay, are comparable to the best in the world. The employment avenues for PhD students have moreover, become better. Besides academia, a large number of MNC's and government organizations are hiring PhD graduates for their

research labs. I also see a new culture emerging in start-ups, where PhD students are at the helm of high technology enterprises. We would of course, like to see more PhD students venturing into entrepreneurship in future,"

Prof. V. Ramgopal Rao awarded the Infosys Prize 2013



The coveted Infosys Prize in the field of Engineering & Computer Science for the year 2013 has been awarded to Prof. V. Ramgopal Rao, Institute Chair Professor in the Department of Electrical Engineering; and Chief Investigator, Centre of Excellence in Nanoelectronics, IIT Bombay. The award was bestowed on Prof. Rao by Dr. Kofi Atta Annan, the seventh

Secretary-General of the United Nations, at a ceremony held in Bangalore, in the month of February.

The annual prize, instituted by the Infosys Science Foundation, to honor outstanding achievements of researchers and scientists across six categories: Engineering and Computer Science, Humanities, Life Sciences, Mathematical Sciences, Physical Sciences and Social Sciences, carries a prize of INR 55 lakh besides a Gold Medal and Certificate. The award intends to celebrate success and stand as a marker of excellence in scientific research.

Prof. Rao was for selected for this award, in recognition of his wide-

ranging contributions to nanoscale electronics, for insightfully integrating chemistry with mechanics and electronics to invent new functional devices, and for innovation and entrepreneurship in creating technologies and products of societal value. Congratulating Prof. Rao, Jury Chair - Pradeep K. Khosla, Chancellor, University of California, San Diego said, "On behalf of the jury, I want to congratulate Prof. Ramgopal Rao for his wide ranging contributions to nanoscale electronics. His work has insightfully combined chemistry and mechanics with nanoelectronics, which we enjoy in our devices and we believe his work, is the way of the future and will make tremendous impact."

National Workshop on GPU Programming & Applications

NVIDIA Corporation, USA has recently awarded Indian Institute of Technology Bombay (IIT Bombay) a CUDA Center of Excellence (CCOE). The CCOE in association with NVIDIA Corporation, USA, recently organised a three-day National Workshop on "GPU Programming and Applications (GPA-2014)" from February 24-26, 2014 at the IIT Bombay campus. The CCOE was inaugurated by Dr. Simon Chong-Wee See, Director and Chief Solutions Architect of NVIDIA Corporation Group, during the workshop. Dr. Simon also delivered the keynote address giving an overview of the latest technologies in GPU based computing. Prof. Rajat Moona, Director General, C-DAC, delivered keynote address on the second day on "Current developments and future plans of super computing in our country".

The GPA-2014 was aimed at enriching the skills of students, faculty and researchers with cutting-edge techniques and hands-on experience in developing applications for many-core processors, with massively parallel computing resources like GPU accelerators. Expressing their view about the workshop Prof. Sunil Kumar, IIT Madras, said "Apart from providing training and exposure to students, such workshops help us to bring people working in HPC together as a community. Such community efforts are an absolutely necessary step to solve challenging problems in High performance computing today". Subject matter experts Prof. Sharat Chandran, Prof. Shiva Gopalakrishnan and Prof. S. Patkar, IIT Bombay, and Prof. Verma, IIT Kanpur; Prof. Sunil Kumar, IIT Madras; Prof. Yashwant Gupta, TIFR; Dr. V. C. V. Rao, CDAC; and Prof.

Dhabe, VIT Pune, presented case studies related to Astrophysics, Random number generation, FFTs, CFDs, GPU memories, with an overview of ongoing GPU based research at different institutes in the country.

Prof. Gopalakrishnan from IIT Bombay, said "With the increasing focus on computational science, programs such as GPA-2014 are vital to development of a skilled talent pool for solving the next grand challenge computational problems. The next decade is going to witness a massive growth in areas where computing will play a major role in enhancing knowledge. The application areas are not limited to CFD, weather modeling, Bioinformatics molecular dynamics, Solid mechanics".

The workshop came to an end with distribution of certificates to the participants.

Faculty News

Prof. S.G. Dani, Department of Mathematics, Gave an invited talk on "The number line and its subsets" at the Department of Mathematics, University of Pune, on February 5, 2014. He also gave a talk on "The exponential map and dynamics" at the National Conference on Differential Equations and Applications", held at University of Mumbai during February 14-15, 2014.

Prof. Dani, gave an invited talk on "Some curious subsets of the number line" at the "National Conference on Algebra, Analysis and Fuzzy Mathematics", held at the North Maharashtra University, Jalgaon, Maharashtra, during February 21-22, 2014. He gave a series of three invited lectures at the Dr. Babasaheb

Ambedkar Marathwada University, Aurangabad, Maharashtra, during March 14-15, 2014, on "Mathematics in India: glimpses from ancient to modern times", "Some curious subsets of the number-line", and "Hyperbolic geometry, geodesic flows and Diophantine approximation".

Student News

Tete - e - Tete with Aamir Khan

ABHYUDAY, the social festival of IIT Bombay organized a special screening of Satyamev Jayate and an interactive session with famous Actor Mr. Aamir Khan, and Ms. Swati Chakravarty, co-director of the show, on March 23, 2014, at the Convocation Hall of IIT Bombay. "A plethora of questions were posed to Mr. Khan by the students and faculty

of the institute, actively discussing the issue of corruption, RTI, duties and responsibilities of an individual", informed Mr. Ranjeet Gakhare, Media and Marketing head of Abhyuday.

When a young school student asked about parental pressure, Mr. Khan suggested him to watch 3 Idiots with family. He stressed on the importance of people to take active responsibility on problems surrounding them. He highlighted the importance of a vote and advised to read the preamble of Constitution before voting. He said that you should opt for the right candidate otherwise you should opt for "None of the above (NOTA)" option in voting. He urged the young audience to dream. "Dream for yourself as well as better India and try to contribute for your nation in every possible way", he remarked.

Project H Naught inaugurated at IIT Bombay



Dr. Anil kakodkar, Chairman, Board of Governors IIT Bombay, inaugurating H-Naught, with Prof. D.V. Khakhar, Director, IITB at IIT Bombay Campus

Team shunya – a student team from IIT Bombay along with Academy of Architecture will be representing India at the Solar Decathlon competition – An international competition in which several teams from across the world design and construct a life-size, fully functional, energy efficient prefabricated home, completely powered by solar energy.

Team Shunya's house, **Project H Naught**, was inaugurated by Padma Vibhushan Dr. Anil Kakodkar, Chairman, Board of Governors, IIT Bombay, on March 13, 2014, at the IIT Bombay Campus. Students from IIT Bombay and Academy of Architecture welcomed members from faculty, industry and the media for the inaugural event in which their entry for Solar Decathlon 2014 was unveiled. Dr. Ajay Mathur, Director General of the Bureau of Energy Efficiency, was also present during the inaugural ceremony.

Project H Naught is a 700 sq. ft efficient house powered by a 5kw PV array. Motivated by the challenge of sustainably meeting the energy



An external view of the House

demand of the hundred million new middle class houses that are projected to be built between today and 2035, H Naught has been built as a quintessential Indian home. It has 2 bedrooms, 2 bathrooms, a living room, a kitchen and a dining room. Affordability has been kept in mind while designing the house.

The Solar Decathlon was started as a biennial event by the US Department of Energy in 2002. Collegiate teams from across the world are invited to design, construct and demonstrate full scale houses powered entirely by solar energy, complete with all amenities from a dish washer to a building automation system.

International Conference on Management of Intellectual Property and Strategy

The second **International Conference on Management of Intellectual Property and Strategy** (MIPS), was organized by Shailesh J. Mehta School of Management (SJMSOM), Indian Institute of Technology, Bombay & NITIE, from January 30 - February 2, 2014.

Partially supported by MHRD through the IPR Chair research activities at IIT Bombay, the theme of the Conference was **"IP for development – The emerging paradigm"** and it highlighted how developing countries need to particularly position themselves with respect to the escalating cost of Intellectual Property. IP, as captured through Patents, Copyright and Trademark, among other forms, create an exclusivity of ownership over how one uses commercial ideas [as embedded in products and designs] and expressions. *"The four day conference included workshops on Copyright Licensing, IP Licensing*

and a Moot Court. These workshops were aimed to introduce the exciting area of IP management with focused cases being analysed," informed Prof. Shishir K. Jha, Conference Chair & Associate Professor, SJMSOM, IIT Bombay.

Former Justice at Madras High Court Prabha Sridevan, who has also held the position of Former Chairperson, IPAB, inaugurated the conference and gave the keynote address on *"IP Evaluation – Vanishing Borders"*.

Besides her, pioneering and leading experts from India and abroad, spoke at the conference including Prof. N. S. Gopalakrishnan, School Of Legal Studies, CUSAT, who spoke on *"Exploitation of Networks: Challenges to Copyright"*; Mr. Dawn Jos, Patent Strategy Coordinator – Asia, Texas Instruments focused on *"Evolution of Semiconductor Industry from an IP Perspective"*; Ms. Cynthia Cannady, Principal and

Founder, IPSEVA, USA, dwelt on *"Climate Change, Water and Patents: Collaboration as a Business and Ethical Imperative"*; Mr. Subhatosh Majumdar, Managing Partner, S. Majumdar And Co., Kolkata, spoke on *"100 years Of Design Law in India"* and Dr. Mira Sundara Rajan, Professor of Intellectual Property Law, CREATE and Glasgow University, Scotland gave his address on *"Copyright, Digital Technologies, And Future for Developing Countries"*, to mention prominent ones

Speaking at the occasion, Ms. Cannady said, *"I am delighted to be here, Representing IP*Seva due to IIT Bombay's international reputation in technology and innovation. We have a common interest in using IP as a tool for economic development and solving urgent problems like climate change"*.

Awards and Distinctions

Prof. Rohit Srivastava, Department of Bioscience and Bioengineering has been selected for the prestigious 'Tata Innovation Fellowship from DBT.

Prof. Prakriti Tayalia, Department of Bioscience and Bioengineering, has won the Innovative Young Biotechnologist Award (IYBA) for the year 2013 given by Department of Bio-Technology of Govt. of India.

The film titled "Gopi Gawaiyaa Bagha Bajaiyaa" directed by **Prof. Shilpa Ranade**, Industrial Design Centre, has won this year's FICCI FRAMES Award for best feature film.

Publications / Presentations

Dr. Ranjit Kumar Das, Central Library, presented a research paper entitled "Collaborative Research as a means towards sustainable development of Higher Education System in India: Role of Libraries", between February 3-7, 2014.

Prof. Ashutosh Rao and Prof. Gautam Mukhopadhyay, Department of Physics, paper entitled "Gate Leakage in Hafnium Oxide High-k Metal Gate nMOSFETs", at the proceedings of 2nd International Conference on Advances in Electrical Engineering (ICAEE 2013), Dhaka, Bangladesh, IEEE Xplore (2014/03/03), December 19-21, 2013, pp 389-394.

Institute Colloquium / Lectures & Seminars

Prof. Costica Bradatan, Honors College at Texas Tech University, Lubbock, USA, conducted a symposium on "Living and Dying with Michel de Montaigne" at the Department of Humanities and Social Sciences on February 12, 2014. He also, conducted a symposium on a book entitled "Dying for Ideas: The Dangerous Lives of the Philosophers" on February 13, 2014.

Prof. Sonia Sikka, University of Ottawa, Canada delivered a seminar on "The Relation Between Religion and Science: Compatibility or Conflict" at the Department of Humanities and Social Sciences on February 19, 2014.

Dr. Cara Murray, University of Houston – Downtown, Texas, USA delivered a seminar on “The Technologicals of Imperial Ownership; or, How the British Got the Suez Canal” on February 26, 2014.

Prof. Anne Cheng, College de France, Paris delivered a seminar on “Chines way” to democracy at the Department of Humanities and Social Sciences, on February 28, 2014.

Prof. Prasenjit Biswas, North Eastern Hill University, Shillong, delivered a seminar on “Aporias of Social Theory: Event, Language and Time” at the Department of Humanities and Social Sciences on March 14, 2014.

Prof. Dr. Dorothea Wagner, Karlsruhe Institute of Technology, delivered a special Seminar on “Algorithms for Route Planning in Transportation Networks” on March 20, 2014.

Prof. Matt Jones, Swansea University, delivered a talk on “There’s Not An App for That” at Industrial Design Centre, on March 25, 2014.

Dr. Phyllis M. Wise, Chancellor,



University of Illinois at Urbana-Champaign, United States, delivered a colloquium lecture on “Medical Research and Information Technology: New Initiatives at University of Illinois at Urbana-Champaign” at the Department of Computer Science and Engineering, on March 26, 2014.

Prof. William Edelglass, Marlboro College in Vermont, USA, delivered a seminar on “The Dharma of Mountains and Waters: Buddhism, Ecology, and Nature” at the

Department of Humanities and Social Sciences, on March 26, 2014.

Prof. Sebastian Velassery, Department of Philosophy, Panjab University, Chandigarh, delivered a seminar on “Socratism” at the Department of Humanities and Social Sciences, on March, 27, 2014.

Prof. Roger Summons, senior faculty member at MIT, Cambridge, USA delivered a lecture on “The search for early life on two planets” at the Department of Earth Science, on March 28, 2014.

Departmental Lectures

Department of Computer Science and Engineering

Prof. Prashant Shenoy, Professor of Computer Science at the University of Massachusetts Amherst delivered a lecture on “Demand Side Energy Management in Smart Buildings” at the Department of Computer Science and Engineering on March 18, 2014.

SJM School of Management

Mr. Gil Penalosa, Former Commissioner of Parks, Sport and Recreation for the City of Bogota, Colombia, Gil delivered a talk on “Sustainable Mobility in Mumbai for All” at VMCC auditorium at IIT Bombay, on March 3, 2014.

Dr. V.A. Shiva Ayyadurai, Ph. D, Scientist-Technologist, Entrepreneur and Educator, delivered a talk on “The Inventor of “EMAIL” at School of Management on March 15, 2014.

Research Scholars Forum

Prof. B. Ravi, Department of Mechanical Engineering delivered a talk on “The Golden Spiral” at the Department of Computer Science and Engineering on March 12, 2014.

Dr. K.L. Brain, University of Birmingham and University of Oxford, UK delivered a talk on “New

Technologies and Techniques as A Driver for Biomedical Research” at the Department of Computer Science and Engineering on March 26, 2014.

International Women’s Day Celebrations

Women’s cell of IIT Bombay, on the occasion of International Women’s Day, organised a talk by Ms Sukanya Patwardhan, Practice Leader at Tata Management Training Centre, Pune, on “Feminization of Workplaces: a new imperative of Business Success?” on March 12, 2014, at its campus. Prof. D.V. Khakhar, Director, IIT Bombay, and Prof. Rekha Kulkarni, Convenor, Women’s Cell at IIT Bombay, were also present, among others.

Ms. Patwardhan in her talk explained how difference in viewpoints, ideas, and market insights in Men and Women, enables better problem solving and understanding the customers. According to her, *the workplace is increasingly becoming more “feminized”*. *Modern workplaces demand more collaboration, more adaptability, and less brawn. The soft skills are becoming the key for being competitive. Competition to be a win-lose is dead. Collaboration is the new competition. It’s about working with each other, not against. Together we all win. It is not about comparing women as superior to men or vice-a-versa. It is about all of us evolving into superior “Human Beings”*.

World Water Day Celebrations

Centre for Technology Alternative for Rural Area (CTARA) and India Water Portal, on the occasion of World Water Day, organised talks by Mr. N. Vasudevan, Chief Conservator of Forests and Head of the Mangrove cell of the Maharashtra Forest Department in Mumbai, and Dr. Jared Buono, Eco-Hydrologist, on March 18, 2014 at IIT Bombay. The title of the talk was “Spring Protection: Safe & Sustainable Drinking Water in the Western Ghats”.

Appointments



Prof. N. Hemachandra, Industrial Engineering and Operations Research has been appointed as the Convener on January 24, 2014. The appointment is for a period of three years.



Dr. Bharath C. Shekar, Department of Earth Science has been appointed as Assistant Professor on February 3, 2014, for a period of three years.



Dr. Shimul Salot, Department of Biosciences and Bioengineering has been appointed as Post Doctoral Fellow on February 5, 2014, for period of two years.



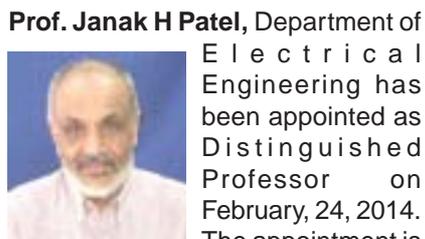
Mr. Arnab Sur, Industrial Engineering & Operations Research has been appointed as Post Doctoral Fellow on February 13, 2014. The appointment is for a period of one year.



Prof. Arpit Sinha, Dept. of Systems & Control Engg. has been appointed as the Warden of Hostel No. 11 on Feb., 13, 2014. The appointment is for a period of two years.



Prof. Narendra K Karmarkar, Department of Electrical Engineering has been appointed as Distinguished Visiting Professor on February 24, 2014. The appointment is for a period of two years.



Prof. Janak H Patel, Department of Electrical Engineering has been appointed as Distinguished Professor on February, 24, 2014. The appointment is for a period of two years.



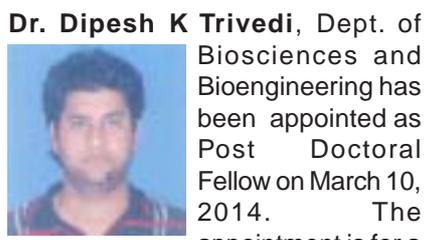
Prof. Abhijit Majumder, Department of Chemical Engineering has been appointed as Assistant Professor on March 3, 2014.



Prof. G. Mohan, Department of Earth Science has been appointed as Head of the Dept., on March 7, 2014. The appointment is for a period of three years.



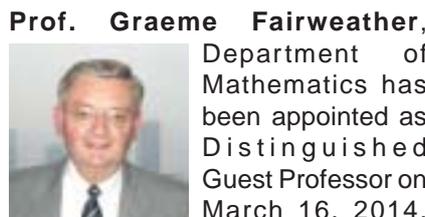
Dr. Rajneesh K Mishra, Department of Metallurgical Engg. & Materials Science has been appointed as Post Doctoral Fellow on March 10, 2014. The appointment is for a period of two years.



Dr. Dipesh K Trivedi, Dept. of Biosciences and Bioengineering has been appointed as Post Doctoral Fellow on March 10, 2014. The appointment is for a period of one year.



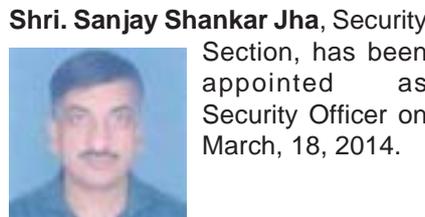
Prof. Narayan Rangaraj, Industrial Engineering & Operations Research, has been appointed as the Dean (Academic Programmes) on March, 14, 2014. The appointment is for a period of three years.



Prof. Graeme Fairweather, Department of Mathematics has been appointed as Distinguished Guest Professor on March 16, 2014. The appointment is for a period of two years.



Dr. Mamata Pradhan, Department of Metallurgical Engineering & Materials Science has been appointed as Post Doctoral Fellow on March, 18, 2014. The appointment is for a period of one years.



Shri. Sanjay Shankar Jha, Security Section, has been appointed as Security Officer on March, 18, 2014.



Prof. Rangan Banerjee, Centre for Technology Alternatives for Rural Areas has been appointed as Head of the Centre, on March 18, 2014. The appointment is for a period of three years.

Retirements on February 28, 2014



Prof. A. Subash Babu, Professor, Department of Mechanical Engineering, retired after 33 years of service.



Shri. Prabir Kumar Bardhan, Sr. Technical Superintendent, Centre for Studies in Resources Engineering, retired after 32 years of service.

Shri. Nadim M. Azam, Sr. Technical Superintendent, Electrical Maintenance, retired after 33 years of service.



Shri. Manohar G. Gavali, Helper (SG), Vehicle Section, retired after 36 years of service.



Ms. Anne R. Victor, Superintendent, Computer Science and Engineering, retired after 26 years of service.



Shri. T.P. Ravindranathan, Superintendent, Estate Office, retired after 33 years of service.



Retirements on March 31, 2014

Prof. Ram C. Prasad, Professor, Department of Metallurgical Engineering & Materials Science, retired after 28 years of service.



Ms. Aleyamma K. George, Superintendent, Electrical Maintenance Division, retired after 38 years of service.



Shri. Ashok S. Kamble, Mechanic Assistant, Department of Electrical Engineering retired after 41 years of service.



Prof. Dhananjay M. Dhamdhare, Computer Science & Engineering, retired after 42 years of service.



Ms. Surekha A Narvekar, Jr. Superintendent, Administration, retired after 38 years of service.

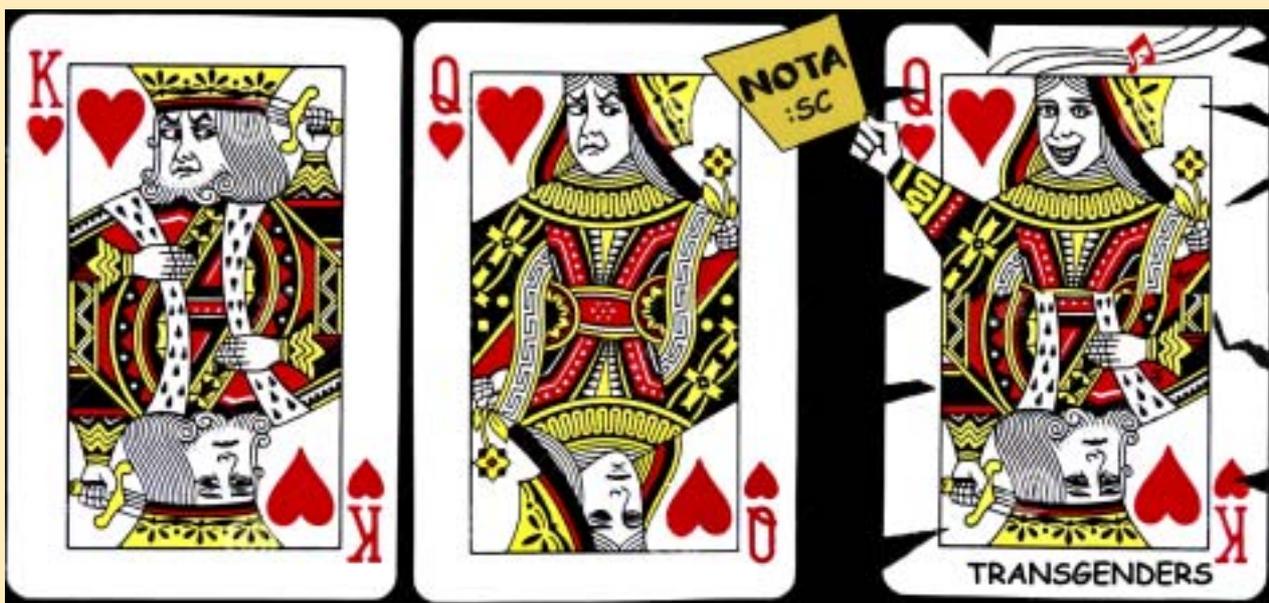


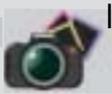
Shri. Durai Pandian Chandrasekaran, Sr. Cook, Hospital, retired after 34 years of service.



Salt 'n Pepper

by Dr. Arun Inamdar





In the Wilderness



by Mr. C.P. Joglekar, Deputy Registrar (Admin)

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