HAL Faculty Chair at IIT Bombay

(L-R) Prof. Ravi Sinha Dean, Alumni & Corporate Relations, IIT Bombay and Mrs. S.Thenmozhi, General Manager, HAL with Prof. Devang Khakhar, Director, IIT Bombay (L) and Dr. R.K. Tyagi, Chairman, HAL (C) in the background.

In an endeavour to promote applied research, development and academic work in the field of new and emerging aerospace technologies, Hindustan Aeronautics Limited (HAL), entered into a Memorandum of Understanding (MoU) with Indian Institute of Technology Bombay (IIT Bombay), to establish a Faculty Chair (HAL Chair) at the Institute, on May 21, 2014.

Speaking about the collaboration, Prof. Devang Khakhar, Director, IIT Bombay remarked, "*Both IIT Bombay and HAL have skilled scientific and technical personnel, who can conduct applied research and tackle multi-disciplinary problems in the field of aerospace systems technology and its application. The MoU will bring together both the organizations to perform academic & research-based activities for the promotion & development of new & breakthrough aerospace technologies in the mutually identified areas.*"

The MoU was signed by Prof. Ravi Sinha, Dean (Alumni & Corporate Relations), IIT Bombay and Mrs. S. Thenmozhi, General Manager, HAL Hyderabad, in the presence of Prof. Khakhar and Chairman of HAL, Dr. R. K. Tyagi, among other senior officials from IIT Bombay and HAL.

MoU signing

"*The Chair will initiate new academic programs, identify research areas, provide technical consultancy to HAL and facilitate training programs for HAL personnel,*" said Dr. Tyagi, adding, "*The Chair will also facilitate holding of annual conferences where new ideas, innovations and technologies could be deliberated.*"

As per the MoU, the HAL Chair shall: Develop new academic programs; Identify and initiate specific research & development at IIT Bombay in the identified technical areas; Provide technical consultancy to HAL; Facilitate development of training programs & training modules including mentoring/ coaching of HAL personnel for updating knowledge and capacity building; and Conceptualize, facilitate & attend annual conference of defence related industries to provide platform to air new ideas, innovations, technologies etc.

"We are happy to be associated with HAL and have an HAL Chair established at IIT Bombay. Besides encouraging cutting-edge research work in the area of aerospace engineering, the Chair Professorship will help us to attract the best talent," said Prof. Sinha.

(L-R) Prof. D.V. Khakhar, Director, IITBombay, memento being presented by Dr. R.K. Tyagi, Chairman, HAL

SINE celebrates 10th anniversary, launches i-ASCEND
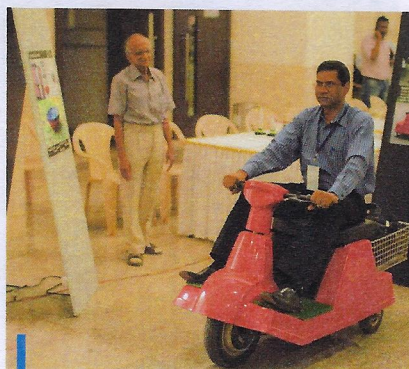

Entrepreneurs at the Forum

Society for Innovation and Entrepreneurship (SINE), the technology business incubation centre of IIT Bombay, celebrated its 10th Anniversary on April 19, 2014. I-ASCEND (IITB Alumni & SINE Committee for Entrepreneurship Development) – a joint flagship entrepreneurship forum formed with IIT Bombay Alumni Association (IITBAA) – with an aim to create a structured platform that strengthens the entrepreneurial ecosystem in technology business incubation by providing support to the larger IITB student, faculty and alumni entrepreneur community, was launched during the anniversary celebrations.

Speaking at the occasion, Prof. Devang V. Khakhar, Director, IIT Bombay, said, *"SINE at IIT Bombay provides a great interface where an idea can be converted into a product and taken into the market. In last ten years, around 50 companies have incubated at SINE and our success rate is very good. I hope I-ASCEND, alongwith SINE, will play a big role in further promoting entrepreneurship on campus and in serving the society."*

I-ASCEND aims to create a structured platform that strengthens the entrepreneurial ecosystem in technology business incubation by providing support to the larger IITB student, faculty and alumni entrepreneur community. The forum focuses on inviting on board experienced industry leaders, successful entrepreneurs, investors and policy makers, who can be made available to the registered entrepreneurs for mentoring, advice, pitch proposals and more. *"The objective of I-ASCEND is to increase the number as well as success of enterprises initiated by students, faculty and alumni of IIT Bombay, through multiplying collaboration and support platform, providing strong communication channel and helping SINE/ IITBAA to support incubation of ventures at multiple locations by utilizing the IITBAA/Heritage Foundation global network and relationships,"* informed Mr. Paresh Vora, Director, IITBAA.

Tech - Electric Trike IIT Bombay, showcased on the occasion

The anniversary celebration of SINE also included Mentoring sessions,

Industry-Academia-Entrepreneurs interactions, Entrepreneur's Product Showcase and one-on-one business interactions. Several products/ ideas/ plans were also showcased by budding entrepreneurs (including students, faculty, alumni) to mentors, investors and others, on the occasion.

Participants at the Entrepreneurs Exhibition

SINE was born in 1990s, when a pilot Information Technology incubator was set up at IIT Bombay with financial and mentoring support of two distinguished Alumni Kanwal Rekhi and Nandan Nilekani. The idea was to encourage graduating students to choose entrepreneurship over corporate jobs. Today, SINE is one of the leaders in this domain. *"We now intend to help other educational institutions in the country to set-up similar facility to encourage entrepreneurship in the Country. We are also coming up with a new building for SINE that will be able to house 50 companies at a time,"* added Prof. Milind Atrey, Professor-In-Charge, SINE.

Alumni extends support to fund innovative projects

The 2002 batch of the IIT Bombay has come together to set up 'IITB Innovate' – an alumni-funded project to aid innovative research projects of students submitted at the IITB Incubation Centre. 'IITB Innovate' signed an MOU with IIT Bombay some time ago, according to which all current and former students of the Institute are eligible to submit their proposals to IIT Bombay. The Project Committee, instituted for this purpose, will review the proposals and select the grant awardees. The award may consist of a grant between Rs. 2-5 lakhs.

Mr. Abhishek Jain, 2002 alumnus of IIT Bombay and a member of IITB Innovate, said *"The alumni-funded project aims to stimulate innovation at IIT Bombay. There are many students who have great ideas, but lack funds when it comes to building a prototype. An Innovation Fund is being set up to support best innovations in research, technology and product development that would create a lasting impact on the quality of life in India. IIT Bombay will use this fund to provide capital to innovative projects and assist in the successful transition of innovative ideas from the early stage to prototyping."*

Objectives of the project are to recognize and reward the most innovative research, technology or product created by the current or former students of the institute, that has the potential to make a lasting impact on the life of the people of India; to foster an environment of creativity and innovation among the students of IIT Bombay and by extension, raise IIT Bombay's standing among the top technology institutes in the world; and to provide early capital to assist in the successful transition of the best innovative ideas from an idea stage to prototyping.

e-Yantra project creates a platform for engineering colleges to share robotic projects & research ideas

e-Yantra Symposium (eYS) 2014 was organized at IIT Bombay from April 10-11, 2014. An annual event at IIT Bombay, the symposium brings together colleges which have set up Robotics Lab through the e-Yantra Lab setup initiative (eLSI) and allows them to share projects and brainstorm new ideas for improving pedagogy and quality of BE projects. EYS 2014 was inaugurated by Prof. S.S. Mantha, Chairman, AICTE. *"In this symposium, faculty members from engineering colleges across the country meet and take away lots of ideas about how to turn their e-Yantra labs into innovation hubs to help invent solutions to local problems"*, said Prof. Kavi Arya, Principal Investigator, e-Yantra project.

E -Yantra participants

The Robotics Teachers Competition held during the Symposium, is a part of the teachers training done under the aegis of e-Yantra project (sponsored by MHRD, Govt. of India), which endeavours to promote robot enhanced education at engineering colleges by involving all three stakeholders – colleges, teachers and students. *"We provide training to four teachers in each college, in the basics of Embedded systems theory and Micro-controller programming through a two-day workshop. The next step is e-Yantra Robotics Teacher Competition – where teachers implement a Robotics project over a period of three months. Each college team is given a Robotic kit alongwith tutorials and accessories and is taken through the steps of project implementation life cycle by the e-Yantra team. We also provide them support and advice to set up a Robotics lab so that by the time the teachers are trained, the lab is ready at the college for the teachers to get their students involved through projects,"* added Dr. Saraswathi Krithivasan, Senior

Program Manager, e-Yantra Project, IIT Bombay. The final products (robots) compete at the Robotics Teachers Competition held during eYS. The theme for the competition this year was 'Mine Sweeper'.

Participants demonstrating robots

Day two of the Symposium on April 11, 2014 witnessed simultaneous inauguration of the Robotics labs established through eLSI at 35 colleges from Delhi, Punjab, Maharashtra and Karnataka. It was followed by talks on emerging topics given by faculty of IIT Bombay and TIFR, to give them a vision as to how these labs may be used in future.

Spoken Tutorials - IT education in simple & effective way

With Information and Communication Technologies (ICT), even teaching and learning has become more lively, enjoyable and effective process. Spoken Tutorials at IIT Bombay is one such method that attempts to bring a revolution in education through technology. Spoken Tutorials (www.spoken-tutorial.org) teaches programming languages, office tools, graphic and circuit design tools through audio video tutorials in simple and interesting manner. Initiated at IIT Bombay, Spoken Tutorials is funded by National Mission on Education through Information and Communication Technology (NMEICT), MHRD, Government of India. Due to this funding, courses are currently available to students free of cost.

A Press Conference on Spoken Tutorial was recently organized at IIT Bombay Campus. Prof. Kannan Moudgalya, faculty member in the

Chemical Engineering Department of IIT Bombay, and founder of Spoken Tutorial project informed the media, *"Spoken Tutorial reduces time to impart training considerably. For instance, usually it takes 30-40 hours of instructions to cover curriculum in C; Spoken Tutorial does it through 20 audio video tutorials of 10 minutes duration each. Students can code, compile, execute and test programs, simultaneously, thus providing a practical complement to theoretical training."* The project has not only enabled many students sitting in far-flung areas of the country to not only clear their doubts and develop a better understanding of the subject but also secure good marks and eventually and jobs in prestigious companies on strength of training due to Spoken Tutorials.

According to Ms. Nancy Varkey, In-charge of creation of content for

Spoken Tutorials, *"Spoken Tutorial project has courses in C, C++, Java, Python, MySQL, PHP, Linux, Netbeans. It has courses in LibreOffice (for office work), SciLab for scientific calculations, GIMP (for graphical design) and Oscad (for electronic circuit design) etc."* The audio content is available in most Indian languages such as Hindi, Kannada, Marathi, Telugu, Assamese, Bengali and even Sanskrit, including English.

However, this pedagogical tool is not just restricted to imparting computer education and can be extended to other disciplines as well. Prof. Moudgalya explained, *"Spoken Tutorial methodology can be used for training in multiple areas from first aid to booking a train ticket and even carpentry. The success of Spoken Tutorials is an invitation to educationists to experiment with technology."*

Autonomous underwater vehicle - Matsya 3.0 unveiled at IIT Bombay

Matsya 3.0 unveiled at IIT Bombay

The third prototype of the Autonomous Underwater Vehicle (AUV) Matsya 3.0 was unveiled by Prof. Devang Khakhar, Director, IIT Bombay and a team of students working on the AUV, in the presence of Prof. Prasanna Mujumdar,

Dean (R&D), IIT Bombay and others, on April 8, 2014.

Matsya 3.0 will represent IIT Bombay at the International RoboSub competition at San Diego, between July 28 and August 3, 2014. The competition entails the development of an unmanned autonomous underwater vehicle by implementing concepts from different streams of engineering namely mechanical, electrical, computer science, aerospace and material sciences. The vehicle can localize itself in an underwater environment and perform real life defense-based task such as detection and surveillance,

underwater power lines, marine research, shipwreck and airplane debris reconnaissance.

Explaining what can be expected from the product, Mr. Mihir Gupta, team leader, AUV-IIT Bombay said, "Over the past three years, the team has followed an iterative design process. Experience at an international level has enabled and driven us to achieve excellence in each subdivision of the AUV. We focused extensively on R&D and most components for AUV were produced ingeniously and in-house. Matsya 3.0, has been designed keeping in mind the product level features and finish."

Article by BSBE faculty members selected to appear as
'Paper of the Week' in The Journal of Biological Chemistry

An article on **Structural Change in Protein hormones**, authored by Prof. Samir Maji, Prof. Ashutosh Kumar and Prof. Ranjith Padinhateeri, all from the Department of Biosciences and Bioengineering, IIT Bombay has been selected to appear as the '**Paper of the week**' by **The Journal of Biological Chemistry** (JBC), published by the

American Society for Biochemistry and Molecular Biology. The paper entitled as "***Elucidating the role of disulfide bond on amyloid formation and fibril reversibility of somatostatin-14: Relevance to its storage and secretion***", is due to be released in the July edition of the internationally renowned Journal.

The editorial Board of JBC has determined paper of IIT Bombay professors among the top 2 percent of manuscripts they will review in a year, due to its significance and overall importance. About 50 to 100 papers are selected from the more than 6,600 manuscripts published by JBC, each year.

The paper broadly probes how Structural change in protein hormones can lead to dysregulation in their storage and secretion. "Hormones regulate most of the major processes that are crucial for healthy functioning of a living organism. Many of these hormones including insulin, glucagon and growth hormone are protein molecules that are synthesized by the cells of the body and stored within cellular compartments known as 'secretory granules' in the form of aggregated clumps known as 'amyloids' which release the hormone when required by the body. Insulin, for example is released from the pancreatic (Islet of Langerhans) cells in response to glucose levels in the blood stream, playing a crucial role in glucose metabolism. Any errors in synthesis or release of these hormones could thus be extremely detrimental to the organism. More importantly, the structure or shape of a protein could be crucial for its efficient storage and secretion. Therefore, in most cases, structure governs the function of a protein," informed Prof. Maji, who lead the research from IIT Bombay.

The group studied the role played by the structure of a peptide (small protein) hormone Somatostatin in controlling its aggregate/ amyloid formation and subsequent release of the hormone. Somatostatin is an important peptide hormone involved in several functions in the human body, the most well known of which is inhibiting excessive growth hormone secretion, thus regulating human growth.

"We used a host of experimental biophysics and computer simulations to first understand the possible role of somatostatin structure relevant to its storage and secretion. We firstly perturbed the structure of somatostatin by cleaving off an important covalent bond (disulfide bridge) in the peptide hormone. This caused the protein to take up different type of structures and interestingly resulted in faster amyloid formation. These amyloids did not release somatostatin hormone readily as compared to its 'non-perturbed' naturally occurring counterpart. Our findings thus emphasize that subtle discrepancies in the protein structure could lead to reduced secretion of the hormone, resulting in serious hormone-related disorders," added Prof. Kumar.

Valedictory Function for the graduating batch

Valedictory Function for the class of 2014 was jointly organized by the Offices of Dean (Student Affairs) and Dean (Alumni and Corporate Relations) at the Institute, in association with IIT Bombay Alumni Association on May 3, 2014 at the F.C. Kohli Auditorium on Campus.

Professor Dipan Ghosh of the Department of Physics was the Chief Guest for the function. Congratulating the graduates, Professor Ghosh in his address explained what the world expects from an IITian and sh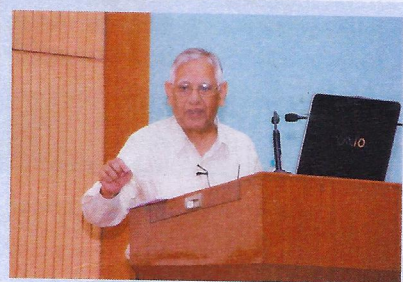owcased how the aspirations of students have changed over time. He also cautioned students that being a graduate from IIT Bombay would not be enough to rise to one's full potential. One also needs to graduate in life, which is possible only by following the right ideals and values.

At the outset, Prof. Ravi Sinha, Dean (Alumni & Corporate Relations) welcomed the gathering and said that it was time to bid farewell to them as students and embrace them in the large alumni community. He said, "You would soon become the ambassadors of the Institute and you must strive to maintain the pride of IIT Bombay".

The graduating students took the *"Give One for IIT Bombay"* pledge and cemented their bond as a concerned stakeholder of the Institute family at the function. About six team members of the out-going SARC team were moreover, honoured by Prof. Urjit Yajnaik, Dean (Student Affairs), for their outstanding work and contributions to alumni and corporate relations, on the occasion.

Institute Colloquium / Lectures & Seminars

Prof. Vikas Chitre, Honorary Fellow and President, Indian School of Political Economy, Pune spoke on "Voters Response to Economic and Governance Outcomes and Electoral Trade-off between Inflation and Growth: Evidence from 2009 Lok Sabha Elections" at an Institute Colloquium on April 7, 2014.

Dr. Makarand Phadke, Senior Vice President-Innovations, Reliance Innovation Leadership Centre, Reliance Industries Ltd, Pune, delivered a distinguished lecture (in memory of Prof. K.C. Khilar) on "Chemical Engineering - Evolution to-date & journey Forward" on April 15, 2014.

Centre for Environmental Science & Engineering

Mr. Prashant Kokil, Corporate Head, Environment and Climate Change, The Tata Power Company Ltd., delivered a Seminar on "Environment and Sustainability: Where are we headed" on April 9, 2014.

Dr. Brajesh Dubey, University of Guelph, Ontario, Canada, delivered a seminar on "Solid Waste Management Issues and Challenges: A Summary of Research Efforts with a Case Study of E-Waste Management Issues" on April 4, 2014.

Dr. Nawshad Haque, Process Science & Engineering, CSIRO, Australia, delivered a Seminar on "Techno-economic evaluation (TEE) & Life Cycle Assessment (LCA) of processes" on April 2, 2014.

SJM School of Management

Mr. R Mukundan, Managing Director of Tata Chemicals Ltd, delivered a Guest lecture on "Corporate Strategy" on April 10, 2014.

CA S. Gurumurthy, Corporate Advisor, Columnist and Activist conducted a session on "Indian Economy: Need To Think Afresh" on April 11, 2014.

Industrial Design Centre

Shri. Bhuvanesh Awasthi, Research Associate in Cognitive and Affective Neuroscience at the Waisman Center, University of Wisconsin-Madion, USA, spoke on "Form and Cognitive Science" on April 17, 2014.

Centre for Urban Science and Engineering

Dr. Saket Sarraf, Principal, *ps* Collective, Ahmedabad, delivered a talk on "Is Your Building Efficient" on April, 21, 2014 at IIT Bombay campus

Department of Metallurgical Engineering & Materials Science

Dr. Gaurav Mohanty, EMPA – Swiss Federal Laboratories for Materials Science and Technology, Switzerland, spoke on "Elevated temperature nanomechanics: Understanding nanoidentation creep in fcc metals and micropillar strain rate jump tests in nanocrystalline nickel" at a seminar organized on April 28, 2014.

Department of Electrical Engineering

Prof. Samir Kumar Pal, Department of Chemical, Biological & Macromolecular Sciences gave a seminar on "Focusing on Research in Cross-disciplinary Areas for Clean Water, Green Energy and Affordable Healthcare: A Spectroscopic Survey" on April 29, 2014.

Centre for Technology Alternatives in Rural Areas

Dr. Patrik Klintenberg, School of Business, Society and Engineering, Malardalen University, delivered a seminar on "Electrifying rural southern Africa: How do we avoid the solar trap" on April 1, 2014.

Department of Humanities and Social Sciences

Dr. Rajesh Parikh, Jaslok Hospital and Research Centre, Mumbai, delivered a seminar on "Limitations of The Psychological & Mental Health Sciences" on April 2, 2014.

Prof. Brendan Gillon, Department of Linguistics, University of McGill, Gillon, Canada, delivered a Seminar on "The Development of Logic in Early Classical India" on April 10, 2014.

Department of Computers Science and Engineering

Ms. Alolita Sharma, Director of Engineering for Internationalization and Localization, Wikipedia, gave a talk on "The Open Data Indic Challenge" on May 30, 2014.

Centre for Research in Nanotechnology and Science

Second In-house symposium "IMNANO 2014" of Nanotechnology and Science, to bring together the research scholars, project staff, postdoctoral fellows and the faculties associated with CRNTS was organized by the Centre on May 10, 2014 at IIT Bombay.

Invited Lectures

Prof. S.G.Dani, Department of Mathematics, delivered a talk at the Laboratoire de Mathématiques, Informatique et Applications, Mulhouse, France, in the Seminaire Georges Reeb (Algebra and Differential Geometry) on "Continued fractions for complex numbers" on May 22, 2014. He also spoke on "Geodesic flow on the modular surface and Diophantine approximation" in the Nancy Differential Geometry Seminar, at the Institut Elie Cartan, Universite de Nancy I (Henri Poincare) (Universite de Lorraine), Nancy, France on May 26-27, 2014.

Workshops

A Workshop on "Disability Awareness" was jointly organized by a Team of National Service Scheme (NSS), IIT Bombay and NGO Trinayani on April 5, 2014 at F.C. Kohli Auditorium, IIT Bombay.

A Workshop on "Urban Freight Transport : A Global Perspective" was jointly organized by IIT Bombay, Volvo Research and Education Foundation (VREF), Center of Excellence for Sustainable Urban Freight Systems, Rensselaer Polytechnic Institute, Troy,NY during April 9-10, 2014 at IIT Bombay.

Prof. Preeti Rao, Department of Electrical Engineering, conducted a workshop on "Computational Analysis of Indian Classical Music" on May 12, 2014.

A One day workshop on "Oscad" was conducted by Oscad group at FOSSEE, IIT Bombay on April, 12, 2014.

Prof. A.G. Rao, Industrial Design Centre, conducted a workshop on "Craft! Creativity ! Language! Maths! Science!" at Uravu Bamboo Village, Kerala, during April 16-20, 2014.

Prof. Indradev Samajdar, Head, Sophisticated Analytical Instrument Facility (SAIF) and JEOL jointly organized a workshop on "Electron Microscopy" on April 22, 2014.

Prof. Shoba Shukla, Department of Metallurgical Engineering and Materials Science and **Mr.Shubham Badjate,** General Secretary Academic Affairs (PG), student conducted a joint workshop with Rhine-Waal University of Applied Sciences on "Thermoelectric Aspects of Electronic Materials and Systems" on April 28 and 29, 2014 at IIT Bombay.

Prof. Shishir K. Jha, SJM School of Management and Co-PI, MHRD IPR Chair, organized a half-day workshop on "Introduction to Methods Patents Issues and Cases" as part of MHRD IPR Chair activities in collaboration with LES on April 30, 2014 at SJM School of Management.

Publications / Presentations

Department of Mechanical Engineering

Singh, N., Gavasane, A., and **Agrawal, A.,** "Analytical solution of plane Couette flow in the transition regime and comparison with direct Simulation Monte Carlo data," *Computers and Fluids,* Vol. 97, pp. 177-187, 2014.

Varade, V., **Agrawal, A.,** and Pradeep, A.M.,

"Behavior of rarefied gas flow near junction of a suddenly expanding tube," *Journal of Fluid Mechanics*, Vol. 739, pp. 363-391, 2014.

Singh, N., Dongari, N., and **Agrawal, A.,** "Analytical solution of plane Poiseuille flow within Burnett hydrodynamics," *Microfluidics and Nanofluidics*, Vol. 16, pp. 403-412, 2014.

Kumar, N., Prabhakar, 4. A., Tikekar, M., Singh, S.G., and **Agrawal, A.,** "Blood flow in non-circular microchannel under pulsating condition," *International Journal of Micro-Nano Scale Transport*, Vol. 4, pp. 33-49, 2013.

Department of Humanities and Social Sciences

Dr. Rajakishore Nath, Department of Humanities and Social Sciences presented a paper entitled "Machines Consciousness, Mind & Consciousness" in a symposium on *"Representation of Reality: Humans, Animals and Machines"* at the 50th Anniversary Convention of the Society for the Study of Artificial Intelligence and Simulation Behaviour organized by Goldsmiths University of London from April 1-4, 2014.

Awards and Distinctions

Prof. Nina Sabnani, Industrial Design Centre, received the **Short Film Award** for her film "The Stitches Speak" at the International Film Festival on Crafts, France, 2014.

Prof. Prakriti Tayalia, Department of Bioscience and Bioengineering has been awarded "Innovative Young Biotechnologist Award (IYBA) - 2013" by the Department of Biotechnology, Ministry of Science and Technology, Government of India.

Prof. Ashwin Gumaste, Department of Computer Science and Engineering has been awarded the prestigious *"SwarnaJayanti Fellowship 2012-13"* award.

Prof. Debabrata Maiti, Department of Chemistry has been awarded "INSA Medal for Young Scientists-2014" for his outstanding contributions to metal mediated organic transformations.

Prof. Abhijit Chatterjee, Department of Chemical Engineering has been honoured with the "INSA Young Scientist Award 2014" for his outstanding contributions in materials informatics for energy systems and catalytic reaction.

Prof. V. Kavitha, Industrial Engineering & Operations Research, **Deeksha Sinha,** Student and **Prof. Abhay Karandikar,** Department of Electrical Engineering won the best workshop paper award in the 12th International Symposium on "Modelling and Optimization in Mobile, Ad Hoc and Wireless Networks".

Prof. T.I. Eldho, Department of Civil Engineering has been awarded "Best Lecture Prize- 2013" at India Water Works Association, Mumbai. The Award was presented in 46th Annual Convention at Bangalore.

He has also been awarded the 2014 Best Theoretical Oriented Paper by Journal of Hazardous, Toxic and Radioactive Waste of American Society of Civil Engineers, EWRI, USA. The award will be presented to him in June 2014 (for paper published in 2013).

Faculty News

Prof. Rajkumar S. Pant, Department of Aerospace Engineering, is visiting Technological Institute of Aeronautics, Sao Jose dos Campos, Brazil, for two months starting mid May 2014 as a Distinguished Visiting Researcher under the aegis of "Science Without Borders" program of Govt. of Brazil. His current assignment at the said Institute is to work on a project related to design and development of hybrid outdoor remotely controlled airships.

Students News

Mr. Abhishek Verma, final year student of Industrial Design Centre, won the Best short film award for "CHASNI" at the Indian Film Festival -14 at Melbourne, Australia.

An animation film 'Naaz' by **Ms. Vidhushi Yadav**, student of Industrial Design Centre, was recently screened at International Women Film Festival, Herat 2014.

Mr. Girish Atuvalaipil, student, Industrial Design Centre, organized a photographic exhibition on "THE LIVES OF OTHERS" during May 1-5, 2014 at Industrial Design Centre, IIT Bombay.

Mr. Jai Mrug, IIT Bombay Alumnus and a Co-founder at Ypoint, delivered a talk on "Applications of Analytics and an Overview of Career perspectives in it." The interactive session was hosted by SARC in collaboration with Analytics Club on April 1, 2014.

News from Gymkhana
Triathlon 2014

Triathlon 2014 – an endurance sport in which one has to perform the tasks of swimming, cycling and running over various distances, was organised by IIT Bombay Swimming Club on March 22, 2014. The competition was held in two categories i.e. Individual and Mixed Team.

In the Individual segment one had to perform all the three task of swimming (400m); cycling (4 rounds of SAC) and Running (two Rounds of SAC). Mixed Team category comprised of three individuals, one female member and two male members and each member had to perform any one of the above mentioned three tasks and thus the team as a whole was required to complete the event.

Mr. Abhishek Shende bagged first place in the Individual category by completing the task in 25 min and 45 sec, followed by Mr. Divyang Momaya and Mr. Ashwin Kanhere in the second and third place with finishing time 26.31 and 26.41 respectively.

In the mixed team category, Mr. S. Venkatesh, Mr. Darwin Varghese and Ms. Sakshi Kale completed the task in 39.25 minutes and were ranked First. Mr. Asmit Patil, Mr. Vagish Bajre and Ms. Saugandhika Kale completed the task in 40.31 Minutes and stood second. Mr Ayush, Mr. Ankit Singh and Ms. Namashya Sahoo stood third by completing the task in 41.59 minutes.

Swimmathon 2014

Swimmathon, organised by IIT Bombay Swimming Club is held annually during the end of Spring season. Started in 1989, Swimmanthon initially six hour swimming marathon, but owing to the enthusiasm shown by the participants the duration was increased to 12 hours. Over the years, Swimmathon has grown exponentially, attracting more than 100 participants every year.

Swimmathon 2014 was the 25th edition of the event and it was conducted on April 5-6, 2014 in the new swimming pool at the Campus. The event saw a huge participation from both students and campus residents. Prof. U.A. Yajnik, Dean (Student Affairs). Dr. P. M. Reddy (Aquatics Coach), Dr. B. B. Appaji (SAC In-charge) and Prof. Ramesh Kumar (Chairman, Sports) joined the participants.

This year 48 of the 113 participants completed the target of swimming for 12 hours. Ms. Saakshi Kale (Campusite), the previous record holder in the category, bettered her own record by covering 30.6 kms and winning Swimmathon second year in a row.

Mr. Ashiwin Kanhere, an Aerospace Engineering freshman, made a new freshmen record by covering 27.9 kms in 12 hours. He stood second in the overall competition.

Research Scholars Forum

Mr. Manju Naika, Assistant Librarian, Central Library, delivered a talk on "TURNITIN: Preventing Plagiarism, Improving Original Writing & Enhancing Institutional Reputation" at the Department of Computer Science and Engineering on April 7, 2014

Dr. Kallol Roy, Outstanding Scientist & Head Research Reactor Maintenance Division, BARC, delivered a talk on "Need for a strong research & analytical approach for technology development with special emphasis on Bayesian Estimation techniques for Precision Measurements & Computational Instrumentation Design" at the Department of Computer Science and Engineering on April 20, 2014.

Appointments

Dr. Koushik Saha, Department of Mathematics has been appointed as Assistant Professor on March 28, 2014.

Dr. A.R. Upadhya, Department of Aerospace Engineering has been appointed as Distinguished Guest Professor on April 1, 2014.

Dr. Divya Venkataraman, Department of Mathematics has been appointed as Post Doctoral Fellow on April 2, 2014.

Prof. Radhendushka Srivastava, Department of Mathematics has been appointed as Assistant Professor on April, 29, 2014 (Contractual Basis).

Dr. Vinod Prabhakaran, Department of Electrical Engineering has been appointed as Adjunct Assistant Professor on April 30, 2014.

Prof. Prashant Navalkar, Department of Electrical Engineering has been apppointed as Adjunct Associate Professor on May 2, 2014. His appointment is for a period of two years.

Dr. Anamika, Department of Electrical Engineering has been appointed as Post Doctoral Fellow on May 2, 2014.

Dr.Sreekant Vakacherla, Climate Studies has been apppointed as Post Doctoral Fellow on May 5, 2014.

Prof. Ashok Joshi has been appointed as Head of Department of Aerospace Engineering on May 15, 2014.

Prof. Rakesh G. Mote, Department of Mechanical Engineering has been appointed as Assistant Professor on May 19, 2014.

Retirements on April 31, 2014

Ms. Sanjivani A Abhyankar, Superintendent, Materials Management Division, retired after 32 years of service.

Shri. Vasant D. Patil, Mechanic Assistant, Department of Aerospace Engineering retired after 38 years of service.

Shri Shivsharan Prasad C. Naithani, Sr. Watchman, Security Section, retired after 33 years of service

Shri. Rabindranath R Guin, Helper (Sr.Gr.), Guest House, retired after 31 years of service.

Retirements on May 31, 2014

Prof. G.Venkataraman, Professor, Centre for Studies in Resources Engineering, retired after 38 years of service.

Prof. M.V.R.Murti, Associate Professor, Centre for Studies in Resources Engineering, retired after 49 years of service.

Dr. Daulat B. Jotwani, Librarian, Central Library, retired after 11 years of service.

Dr. Boppanda Bopaiah Appaji, Senior Sports Officer, Gymkhana, retired after 35 years of service.

Shri. Uttam D.Gholap, Sr. Security Inspector, Security Section, retired after 38 years of service.

Shri. Mahadeo B. Raktade, Jr. Technical Supt., Centre for Research in Nano Technology & Science, retired after 39 years of service.

Shri. Subrata Das, Jr. Superintendent, Placement Office, retired after 38 years of service.

Shri. C.L. Antony, Jr. Superintendent. Mathematics, retired after 31 years of service.

Shri. Pradip V Khandare, Jr. Superintendent, Estate Office, retired after 38 years of service.

Shri. Bhikaji T Ghadi, Jr. Superintendent, Cash Section, retired after 40 years of service.

Shri. Subhash N Kocharekar, Attendant (SG), Physics, retired after 35 years of service.

Shri. Suresh S Kadam, Mechanic Assistant, Civil Engineering, retired after 39 years of service.

Shri. Ramesh M.Chavan, Watchman (SG), Public Health Office, retired after 39 years of service.

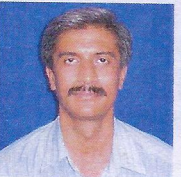**Ms. Sakubai A. Kedare,** Cleaner, Public Health Office, retired after 9 years of service.

Ms. Nathibai Z. Solanki, Cleaner, Public Health Office, retired after 26 years of service.

Obituary

Mrs. Aruna Thosar Dixit, former Public Relations Officer of IIT Bombay died in Pune on May 28, 2014, at the age of 67 due to prolonged illness.

She will be deeply missed by her family and colleagues at IIT Bombay. May her soul rest in peace.
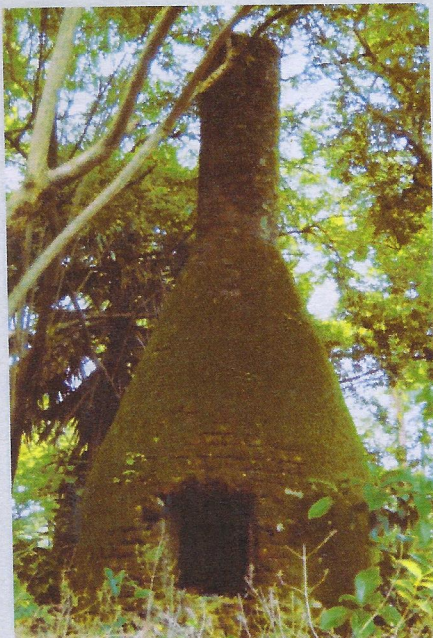
salt n pepper
by Dr. Arun Inamdar

...On the positive side, we've got to thank the earlier government for the biggest favour they have done to all by setting the bar so low that, these days, everybody is confident of doing better in any area !

In the Wilderness

Slice of History:

During the early 60's, the Incinerators were constructed at the outskirts of populated areas on campus, to dispose off garbage generated from dry leaves, twigs, paper scrap etc. With time, the practise has been discontinued but one can still find these structures at few places on campus. One featured here is located near the bus stop next to Ananta on the Hill Side.

Photo Credit :

**Shri M C Hebatpuria,
Retired Officer, IIT Bombay**

CEP courses scheduled during June - July 2014

No.	Course Title	Course Coordinator / Department	Duration
1	Simulation of Power Electronic Circuits	Prof. Suryanarayana Doolla Energy Systems Engineering	June 18 – 20, 2014 (3days)
2	HYDRO-Climatic Modeling and Climate Change Impacts Assessment	Prof. S. Karmakar & Prof. Subimal Ghosh Environmental Science & Engineering	June 30 – July 4, 2014 (5 days)
3	Urban Drainage Management : State-of-the-Art 2014	Prof. Kapil Gupta Civil Engineering	July 3 – 5, 2014 (3 days)
4	Renewable Energy for Rural Areas	Prof. Anand B. Rao / Prof. Amit Y. Arora Centre for Technology Alternative in Rural Areas	July 14 – 16, 2014 (3 days)
5	Recent Development in Materials and Manufacturing Process	Prof. Date P P Mechanical Engineering	July 7 – 11, 2014 (5 days)
6	Advances in Stormwater Drainage and Catchment Engineering	Prof. Kapil Gupta Civil Engineering	July 17 – 19, 2014 (3 days)

BOOK POST