Director’s Message

I take this opportunity to send a copy of the quarterly Newsletter Issue-2 (October 2017) of IIT Delhi. The Newsletter highlights the major academic sessions, research work, collaborations and extra-curricular activities at the institute. It also brings into focus news from alumni desk.

I would welcome your comments and suggestions in making this more interactive.

Warm Regards,

Prof. V. Ramgopal Rao
Director,
Indian Institute of Technology Delhi
Industry Day @ IITD

IIT Delhi hosted its first ever Industry Day on September 23rd. The event aimed to build on the strong relationship that we already enjoy with the industry, showcase cutting edge industry focused research at IITD, and kindle ideas for technical and CSR collaborations in the areas of mutual synergy. The day saw footfall of over 200 industry experts and more than 600 faculty and students, providing a great opportunity for networking between industry and research teams. Industry Day showcased presentations and interactive conversations in the five salient fields of Defence, Environment, Affordable Healthcare, Smart Cities, and Energy.

The event was inaugurated by Dr. V. K. Saraswat, Member, NITI Aayog. His keynote speech highlighted the significance of industry-academia collaborations in today’s world. 25 enlightened speakers shared their insights during different thematic sessions. The day started with some introductory talks followed by panel discussions by both academia and industry, who discussed the various routes available for collaboration, and the benefits they have experienced through such partnerships. Some of the key speakers at the event included Mr. Manpreet Singh, Director - KPMG, Dr. Maharaj Kishan Bhan, Former Secretary - DBT, GOI, Dr. Sanjay Singh, CEO, Gennova Pharmaceuticals, Ms. Dipakshi Mehandru, Policy Advocacy & Government Affairs, DELL, Dr. Renu Swarup, MD BIRAC.

The entire afternoon was given over to a ‘networking fair’, where IIT Delhi exhibited examples of their capabilities and areas of expertise. More than 25 hands-on product demonstrations and over 250 posters were presented on Industry Day, providing valuable industry insights for all the attendees.
Orientation Day at IIT Delhi

More than 800 students assembled in Dogra Hall for their ‘introductory class’ that acclimatized them with the fundamentals of the institute on July 20. Students accompanied by their parents descended from all parts of the country for the two-day registration cum orientation programme.

National level conference on Bioinformatics & Computational Biology

A two-day national conference on Breaking Barriers through Bioinformatics and Computational Biology was organized at IIT Delhi from July 31.

The main focus of the conference was on how to leverage current strengths of the research community to seek answers to some fundamental questions in biology, generate new technologies and employment opportunities and to identify what it takes for the country to become a leading contributor in the field of Bioinformatics and Computational Biology.

Around 200 delegates including those from different IITs, IISc, IISER, CSIR labs and industry participated in the event.

MIT-IIT Make in India boot camp for Social Innovation & Entrepreneurship

Massachusetts Institute of Technology, through MIT-India program, joined hands with IIT, Delhi and TechTop Trust to conduct “MIT-IIT Make In India”, a 28-day boot camp on social innovation and entrepreneurship. There were 48 students from MIT, Asia School of Business, Malaysia, IITs and engineering colleges across India. The boot camp, designed as a ‘live-in’ hands-on training program, took the students to different parts of Delhi and rural areas of Himachal Pradesh to understand pressing social problems of the communities in India and apply their technological skills and innovative minds to come up with viable solutions.
Seven day course on Indian Economy launched at IIT Delhi

A seven-day course on Indian economics designed by the Chief Economic Advisor (CEA) Dr. Arvind Subramanian was launched at IIT Delhi on June 11.

Union Finance Minister Arun Jaitley and Human Resource Development Minister Prakash Javadekar jointly opened the course.

The course titled Contemporary Themes in India’s Economic Development and the Economic Survey was launched under ‘Swayam’, an information technology dais that hosts Massive Open Online Courses (MOOCS). The 35-hours course, spread over a week touched a host of issues like GST, Universal Basic Income, Demonetization and performance of Indian states. More than 160 participants which includes students and teachers had registered for the course.

International Yoga Day celebrated

International Yoga Day was celebrated with lots of enthusiasm on July 21. Besides group yoga and meditation there were several other programmes including health talk, yoga dance, bhakti music and exhibitions.

3rd Advances in Robotics (AIR 2017)

The 3rd Advances in Robotics (AIR 2017) was held in the Lecture Hall Complex from June 28–July 02 as the International conference of The Robotics Society in India. On the first day, there were tutorials and TCS workshop on ‘Robotics for Waste Management’ and ended with doctoral symposium on the last day.
Open House 2017

The 13th edition of Open House on April 22 had myriad reflections of creativity, innovation and academic excellence. The sprawling campus mirrored a multi-hued vibrancy even as parents, teachers, students and professionals walked in, braving scorching heat, to get a taste of the latest innovations from the labs of one of the premier institutes of the country.

International Conference of SPIC MACAY

Prime Minister Narendra Modi inaugurated the 5th international conference of the Society for the Promotion of Indian Classical Music and Culture Amongst Youth (SPIC MACAY) through teleconferencing on June 5. The conference coincided with the 40th year of inception of SPIC MACAY. The week long cultural canvas was dotted with riveting presentations of music, dance and theatre.

Technology Day: IIT Delhi innovators bag National Award for nasal filters

A team of IIT Delhi researchers was awarded the Startups National Award 2017 by the Technology Development Board for creating a promising new technology to protect against air pollutants and minimize the risk of respiratory diseases. The team includes the faculty members Prof. Manjeet Jassal and Prof. Ashwini K. Agrawal besides alumni Sanjeev Jain, Prateek Sharma, Tushar Vyas and a student Jatin Kewlani. The device — ‘Nasofilters’ a Nano-respiratory filter is ready for commercialization and can protect against the finest particulate pollutants in the air. The award was given by the President of India Pranab Mukherjee at a function organised to celebrate the Technology Day on May 11 at Vigyan Bhavan, New Delhi.
News from Corporate Relations

Applied Materials just initiated their first collaboration project with IIT Delhi under the Healthcare umbrella. The first stage of the project aims to determine feasibility of application of ALD technology in the Pharmaceutical and Biopharmaceutical sectors. Both the organizations are looking forward to work with each other and expect the scope of association to grow as the work evolves.

Automotive behemoths Mahindra Tech and Maruti have initiated major training programs at the Institute. The organizations are further looking into expanding the association through customized training, diploma and M.Tech programs to serve their company specific needs.

TCS-IITD JPC and MC meeting was held in first week of Aug to review the jointly submitted proposals. The collaboration work on the three successful proposals which include two projects in the robotics domain and one in the healthcare sector has initiated. TCS and IIT Delhi are in discussions for exploring new research engagement opportunities.

In addition, Corporate Relations Department (CRD) is also in advanced stages of discussions on prospective collaborative projects and CSR opportunities with ABB, IBM, Path and IRCON. CRD office successfully conducted IIT Delhi’s first ever Industry Day on Sep 23.

US faculty hunt campaign: UNLimiIITD

IIT Delhi has set out on an ambitious path of increasing the faculty size by 100 in the next two years and is looking for the brightest minds across all disciplines. A sharp increase in number of undergraduate students since 2008 by as much as 50% without commensurate increase in the faculty has led to unprecedented challenges and stress on the academic environment. Competition with multiple institutions within India for a limited pool of high quality domestic faculty candidates makes it necessary to tap into the global resource pool including candidates of non Indian origin.

A team of five members from IIT Delhi led by the Director visited eight universities in US between June 13 to 26. The universities visited included Stanford, UCLA, University of Houston, University of Chicago, MIT, Columbia, Princeton and NCSU. The campaign was named UnlimIITD (see www.iitd.ac.in/content/unlimited-iit-delhi) and was preceded with meticulous planning by the Dean (AAIP) and the Dean (Faculty) offices with active support from various faculty members in the institute.

All the venues had good attendance with turnouts between 25 - 40 comprising of enthusiastic PhD students and post-docs across science and engineering disciplines. The delegation received invaluable support from some of the distinguished alumni who hold senior positions in top universities and research laboratories.
DRDO-IITD Joint Advance Technology Centre (JATC)

DRDO has given a grant of Rs 24 crores towards the construction of Mini Science Park (MSP) building and Rs 1 crore towards administration of JATC. The research project of 157 crores is sanctioned and the fund will be transferred to IIT Delhi shortly. The kick-off meeting of the JATC project will be held on November 6 in the Senate Room.

FIRP

FIRP project evaluation took place through poster presentation on August 8 in the foyer of Dogra Hall. FIRP is helping forge interdisciplinary network within the institute. R&D office announced the next phase of FIRP in the month of September. The last date of submission was October 10.

IRD Helpdesk

IRD Unit has started a helpdesk service to attend to all the project/consultancy related queries. One may contact IRD through internal no. 7519 and through email helpdesk.ird@gmail.com.

Sponsored Research Projects & Consultancy Jobs from April-September

- 93 Sponsored Research Projects with sanctioned value to the tune of Rs. 133.27 crores.
- 144 Consultancy Jobs with a total sanctioned value of Rs. 6.37 crores.

High value projects undertaken in April-June

- Local Treatment of Urban Sewage Streams for Healthy Reuse (LOTUS): INDO-DUTCH joint project undertaken through Department of Biotechnology (Sanctioned Fund: Rs. 12.73 crores).
- A Technology Platform for Application of Advanced Textile Structures for the Development of Structural Composites including Green and Waste Composites sponsored by Ministry of Textiles (Sanctioned Fund: Rs. 9.83 crores).
- Centre of Excellence in Climate Modeling sponsored by DST (Sanctioned Fund: Rs. 7.19 crores).
- Extraction of Precious Metals from E-waste using Chelation Technology sponsored by DST (Sanctioned Fund: Rs. 4.28 crores).
- Electronically Tuned Ultra-wide Band Microwave Monolithic Devices using Magnetic Nanostructures sponsored by MHRD under IMPRINT scheme (Sanctioned Fund: Rs. 4.05 crores).
COE on 5G Network by Ericsson

Ericsson (NASDAQ: ERIC) and IIT Delhi have signed a memorandum of understanding to jointly roll out a ‘5G for India’ program. Ericsson will set up Centre of Excellence with a 5G test bed and incubation centre at IIT Delhi and use this facility to drive the development of the country’s 5G ecosystem. This program has been conceptualized to fast-track realization of Digital India initiatives and aid application development for Indian start-ups and industries.

Schlumberger and IIT Delhi to set up CoE

Schlumberger and IIT Delhi have announced the setting up of a Centre of Excellence for Oil and Gas Technology at IIT Delhi. The Centre of Excellence will house latest software technology provided by Schlumberger and will enable students at the premier institute to work with modern technological tools used in the industry. Schlumberger is the world’s leading oilfield services company supplying technology, information solutions and integrated project management that optimize reservoir performance for customers working in the oil and gas industry. The centre will give the faculty and students a unique access in contributing to the development of indigenous technology for Oil and Gas in India. MoU signing ceremony was held on April 22 in the Board Room.

COE on Climate Modeling

Researchers at IIT Delhi are working toward developing a climate model that caters to the specific needs and challenges of climate change in India. DST Centre of Excellence in Climate Modeling is a major new initiative taken by IIT Delhi and funded by the Department of Science and Technology. GoI to develop an India centric climate model to address certain pressing issues of climate change in India and to educate manpower in numerical modeling of the Earth system and climate. The researchers propose to perform the required upgrades to an existing climate model and build a better model for the Indian region through improved physical and computational implementations. They aim to develop an India-Centric Climate Model (ICCM) through process improvements and region-specific customization that can simulate the regional climate of India and can be used for future climate projections at district level to assess the impacts of climate change on agriculture, health, water resources, and the energy sectors. The kick-off meeting of CoE in climate modeling was held on October 6.

Tech Leapfrog: IITD to make India global player in Smart Manufacturing

IIT Delhi and the Automation Industry Association (AIA) have entered into a partnership to help India become a leading global player in the area of smart manufacturing. AIA is a vibrant forum for all automation companies in India, spreading knowledge and creating awareness for enhancing the global competitiveness of Indian industry. Smart manufacturing marries technological prowess with human intelligence for producing an innovative ecosystem to meet the challenges of the global market. It aims to optimally use the data, resources and integrate the different components for boosting productivity. Both IIT Delhi and AIA signed an MoU on August 28 to this effect for setting up a National Centre of Excellence for Smart Technology Enabled Manufacturing.
Giving back to IIT

Mr. Saurabh Mittal announced a donation of Rs 10 crores towards construction of a Sports Complex on the campus of the Institute. The proposed Sports Complex will house state of art, excellent sports amenities. Mr. Mittal received his Bachelor of Technology degree in Electrical Engineering from IIT Delhi in 1995 and Masters in Business Administration from Harvard Business School in 1999. In that year, he partnered with two of his IIT Delhi colleagues to co-found Indiabulls Group. At present, Mr. Mittal is Chairman of Mission Holdings, his private investment vehicle.

Mr. Ramesh C. Kapur donated Rs 60 lakh and has committed a total of Rs 2.4 crores towards scholarships for students in IIT Delhi. Mr. Kapur, President, Kapur & Associates, Inc. Consulting Engineers, Milwaukee WI, has made this donation towards a scholarship campaign being run by the institute to help meritorious students whose annual parental income falls in the range of Rs 5-9 lakh.

Mr. Chetan R. Vohra donated Rs 20 Lakh for a scholarship for the meritorious students whose annual parental income is in the range of Rs 5-9 lakh. Mr. Vohra is a graduate of IIT Delhi Chemical Engineering class of 2002. He joined Citigroup in 2003 and was promoted to Managing Director in 2012. At Citigroup he has served in various roles in the mortgage trading department of the institutional fixed income markets business.

IIT Delhi-WUSTL-IIT Bombay Joint Workshop on Clean Coal Technologies

A two day IIT Delhi-WUSTL-IIT Bombay joint workshop was held on June 12 and 13. The objective of the workshop was to explore the current state-of-knowledge and research at IIT and WUSTL in the fields of energy and coal; identify knowledge gaps and potential areas for collaborative research. During the inaugural session, brief presentations were made on WUSTL and IIT Delhi, followed by presentations from the Heads of various Departments at IIT Delhi. The workshop included sessions on Emissions, Control Technologies, Coal Gasification, Coal Combustion and Carbon Capture.
International Collaborations

A six member delegation from Military Institute of Science and Technology, Bangladesh, visited the Institute on June 23 to discuss on the possibilities of collaboration between IIT Delhi and MIST, Bangladesh.

A Taiwanese delegation of more than 60 members, led by Taipei City Mayor Mr. Wen-je Ko visited the Institute. The delegation discussed the general ecosystem of Research and Higher Education and the possibilities of faculty and student exchange.

A delegation led by H.E. Young Sup Joo (SME minister) discussed the possible areas of cooperation in technology exchange between SMEs of Korea and IIT Delhi. The delegation also visited the Technology Business Incubator of IIT Delhi.

A high level delegation from Ethiopia visited the Institute on June 15. The delegation was headed by the State Minister, Ministry Of Education, Ethiopia. A number of issues of mutual interest were discussed during the meeting between the delegation and the Institute authorities. This included sharing of the experiences and learning of both the sides about Academia-Industry linkages, models of Technology Transfer, possible models for linkages between Institutes of Academic research and Institutes for Industry oriented research.

An interaction was held between the Department of Electrical Engineering, IITD and the Department of Electronic Systems, VGTU (Vilnius Gediminas Technical University), Vilnius, Lithuania under the Erasmus+ scheme. Prof. Arturas Serackis visited the Department of Electrical Engineering, on May 8-9, where he was hosted by Dr. Sumantra Dutta Roy and Dr. Brejesh Lall. Prof. Serackis gave a series of talks on various subjects. Under the same Erasmus+ scheme, Dr. Dutta Roy visited Prof. Serackis and his research group from July 5-13. He delivered a set of lectures on medical informatics, motion segmentation and tracking, object recognition and robotic manipulation.
Sports News

April 5: The Tennis ladder for boys and girls was started with an aim to identify and nourish fresh talent for the Lawn Tennis Team.

April 12: Runners Club collaborated with Adidas Runners Club to organise a conditioning session at the main field.

April 23: The much celebrated IIT Premier league came to an end. The tournament, which extended for 2 months saw a large participation.

April 25: The much awaited volleyball league of IITD came to an end.

April 27: The hockey league culminated in players being rewarded for their performance. The league was organised for hockey to rope in fresh talent.

April 29: The All Boards Night saw awards being conferred to the outstanding players.

May 10: Summer Camp for sports started. For the first time, the camp was planned well in advance with proper slots for gym, morning conditioning and fun mixed sports events.

May 14: BSA collaborated with Indian Road Safety Campaign to organise a run for a cause marathon.

May 24: BSA felicitated the players who stood out in their respective sports.

June 22: Hostel Sigils were launched for each of the hostels.

July 31: PG Fresher’s week commenced and saw enthusiastic participation of the post graduate students.

August 4: BSA Orientation for Freshers which saw a huge turnout, was successfully organised with Tejaswin Shankar as the Chief Guest.

August 15: Freedom Run for Men, Women and Kids was organised.