Vol-5 Issue-4

Convocation Special

Prajwalam

The Newsletter (December 2016)

Indian Institute of Technology Ropar

Director's Message

Dear Friends,

As we bid farewell to 2016 and welcome the New Year 2017, it is time to look back at our achievements in the past year. This has been an exiciting year for IIT Ropar. We have been ranked 9th in the National Ranking released by MHRD. This, for a new Institute like IIT Ropar, is no lesser feat. On the other hand, we have made rapid progress on the construction of our upcoming campus. I am sure by the time you get our next issue of Prajwalam, we shall start making a move to our new home. This year also saw active participation of IIT Ropar in various National initiatives as well as International outreach. The substantial increase in industrial projects received from various agencies is a testimony to our commitment towards nation building. We have also reached out to various Universities in UK, Canada and United States, actively connected with diaspora, and engaged with the scientific community abroad. We have plans to continue this in the next year as well. We have been extremely successful in attracting talented faculty members and we are set to touch 100 faculty strength in the coming days. This year has also seen a dramatic jump in our campus placements and quality of students' admission. All this is possible due to the dedication & hard work of the stakeholders whom I call Team IIT Ropar.

Last month, we hosted our Fifth Convocation where 112 UG and 18 PhD students graduated. Once again, I wish them great success in their future endeavours. I am sure our students would bring laurels to the Institute and the Nation.

Finally, I thank all of you for your continuous support, guidance and motivation. Please find time to view our maiden Institute documentary that provides glimpses of life at IIT Ropar.

I wish you and your family a rewarding 2017.

Jai Hind!

Convocation 2016

The 5th convocation of IIT Ropar was held on November 21, 2016. The Chief Guest for this event was Prof. Ashutosh Sharma, Secretary Department of Science & Technology to the Government of India. He has been a Professor and Head of Chemical Engineering and founding Coordinator of Nanosciences Centre and Advanced Imaging Centre at IIT Kanpur. He was a recipient of the US Medal of Science from Pennsylvania State University. Prof. Sharma has had a broad international experience as a research faculty at SUNY, Buffalo, School of Medicine. His contributions are highly interdisciplinary spanning a wide range in nanotechnology; thin film polymer films; nano-composites and devices in energy, health and environment; functional interfaces; micro/annomechanics of soft matter etc. He is an elected fellow of the Indian National Science Academy, the Indian Academy of Sciences, The National Academy of Sciences and Asia-Pacific Academy of Materials. He has published over 300 peer reviewed papers, filed over 15 patents, given over 100 invited/key note conference presentations and mentored a nanotechnology startup. The function was presided over by Ms. Lila Poonawalla, Chairperson of

IIT Ropar's Board of Governors, Chairperson of Lila Poonawalla Foundation and Former CMD Alfa Laval-Tetra Pak, India.

Director Sarit K. Das presented the Institute's report that highlighted major achievements of Institute such as academics transformation, research output, infrastructure development, externally funded projects & industrial consultancy, reorganization of administration and industrial relations, international and alumni affairs etc. He concluded

with congratulating the graduating students.

Chairperson BoG, Ms. Lila Poonawalla addressed the gathering congratulated the graduating students where she asked the students to follow values like honesty, integrity, consideration and humility. She also stressed that excellence is by looking at those better than ourselves. For students learning is a continuous process and they should keep learning as they move ahead in life.

Chief Guest Prof. Sharma shared his thoughts by expressing that true knowledge is not attained by thinking. It is what you are; it is what you become. He narrated the objectives of developing IITs for imparting quality engineering education to our talented youth and how IITs have emerged as globally valued brand with their alumni as leaders in their chosen profession and businesses. He hoped that IIT Ropar will establish its mark by solving some of the complex challenges that leverage the best of global science for developing locally relevant technology solutions.

The Chief Guest's speech was followed by the award of degrees by the Chairman of the Senate. Medals were presented by the Chief Guest and the Chairperson, BoG to the meritorious students. The President of India's Gold Medal for obtaining the highest CGPA amongst the graduating students of B.Tech. in the year 2015-16 was awarded to Mr. Gaurav Mittal of the Department of Computer Science and Engineering. The Director Gold Medal for best all round performance was awarded to Mr Amogh Agrawal of Department of Electrical Engineering. Institute Silver Medals for obtaining the highest CGPA amongst the students graduating of the B. Tech. programme were awarded to Mr. Amogh Agrawal of the Department of Electrical Engineering and Mr. Nekkanti Akhil of the Department of Mechanical Engineering.

Excerpts from the Chief Guest's Address

Prof. Ashutosh Sharma called upon the graduating students to participate in nation building. Here are some of his thoughtful questions that he so eloquently posed to the graduating batch:

- Can you setup technology startups and small and medium scale enterprises that generate employment opportunities by designing and manufacturing innovative technological products in India? This, in my opinion, will take the Make in India initiative to the next level. Department of Science and technology, Government of India through its recent NIDHI scheme and Niti Ayog through its AIM scheme offer an extraordinary mix of opportunities for startups from mentoring, prototyping and fellowships to seed funding, connecting and patenting. There has never been a better time to be a techno-entrepreneur! Be a creator of knowledge, wealth and employment.
- Can you develop low cost clean solutions to mitigate the energy dependence of our country? How about taking the price war to the next level when it comes to developing renewable energy harvesting and storage devices?
- Can you develop innovative software and supply chain solutions that can help our city and village administration to manage solid waste? 21st century India should certainly look neat and Swachh. Isn't it?

- Can you develop relevant and sustainable micro-industries for the rural areas that use local resources to address the local problems, e.g., using agri and bio-waste for crop-processing, cold-storage, electricity and clean water?
- It is predicted that by the year 2050, nearly half of India will live in urban clusters. How about coming up with some really SMART solutions for urban transport and power and water distribution networks?
- With changing life style, Indian population is greatly at risk of chronic ailments, including Diabetes, Osteoporosis and Cardiac illnesses. Can you come up with low-cost diagnostic and healthcare solutions that aim at reducing stress on our already overpopulated hospitals as well as providing seamless medical access to remote areas? For example, can we build diagnostic tools on the smart phone platforms?

Visitor's Conference

The Annual Visitor's Conference at Rashtrapati Bhavan was held during 16-18th November 2016. This Conference provides an opportunity to leaders of Higher Academic and Research Institutions to share their views and discuss in detail a host of important issues concerning higher education.

Director, Prof. Sarit K. Das led the group of Vice Chancellors and Directors on the agenda item "Funding opportunities for Higher Education". He made a presentation in front of the Hon'ble President, the Hon'ble HRD Minister and conference participants on the proposal for funding options for the institute of higher education.

Know Our Faculty

The electric power networks are one of the most complex systems, comprising of several thousands of generators, thousands of kilometer long high-voltage transmission lines and millions of load points. All these components work in unison to deliver a reliable power supply to the end-users. The power industry is undergoing an unprecedented change because of the increased usage of renewables, emerging power markets and advancements in measuring devices; leading thereby to emergence of Smart Grids.

The research in Smart grid and the allied areas has gained an increased momentum in past few decades in industry as well as in top universiities all around the globe. At IIT Ropar, Dr. Ranjana Sodhi of Electrical Engineering Department, along with her team of four PhD students, works on the research challenges in the Smart Grid area. As the Smart Grid has many facets, the main focus of Dr. Sodhi's group is in Wide Area Monitoring System (WAMS) and its applications viz., power system state estimation, power system stability and control. To support the fundamental research, a labscale WAMS model, housed in SYnchrophasor Measurement And Research (SYMAR) lab, has also been developed at IIT Ropar. The model provides the real-time power system measurements of our campus, which are further utilized for various applications e.g. event detection, harmonic analysis, campus load modelling, etc. The group also focuses on developing the effective synchronization and islanding detection techniques for the integration and isolation Microgrid, respectively. The picture alongside shows the WAMS lab-scale model, developed in SYMAR lab at IIT Ropar, under Dr. Sodhi's Seed Grant and DST funded projects.

1. Analyzing SCL PMU data on PC.
2. Wamster PMU located at IIT Ropar substation.
3. Analyzing Wamster PMU data on PC.

Events

Quintessence-16' (Intra Institute Technical Fest, IIT Ropar)

Design Exhibition, 2016

Scientific and Technical Writing Workshop

Intra - IIT Staff Sports Meet 2016

Neutrinoless Double Beta Decay (NDBD - 2016)

A workshop on *Neutrinoless Double Beta Decay (NDBD - 2016)* was jointly organized by the Department of Physics, Indian Institute of Technology Ropar and Tata Institute of Fundamental Research (TIFR), Mumbai at IIT Ropar from October 17 - 21, 2016. Further, a one-day collaboration meet on *Neutrinoless Double Beta Decay and Dark Matter: Present & Future* was conducted at HP University, Shimla on October 22, 2016. This meeting reviewed the present status of NDBD and Dark Matter search efforts devoted in India.

New Joining

Dr. Chirodeep Bakli
Assistant Professor
Mechanical Engg.

Dr. Devranjan Samanta
Assistant Professor
Mechanical Engg.

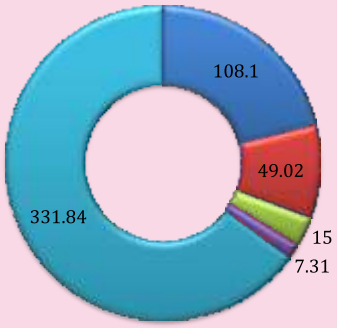
Dr. Durba Pal
Assistant Professor
Biomedical Engg.

Dr. S. Chakrabortty
Assistant Professor
Physics

Dr. Srivatsava Naidu
Assistant Professor
Biomedical Engg.

Dr. Sudipta Kumar Sinha
Assistant Professor
Chemistry

External Funded Projects



Total Amount Sanctioned Rs. 511.27 in Lakhs (August - November 2016)

हिन्दी पखवाड़ा

हिंदी दिवस के उपलक्ष्य में भारतीय प्रौद्योगिकी संस्थान रोपड़ में दिनांक 14.09.2016 से 28.09.2016 तक हिंदी पखवाड़ा का आयोजन किया गया है। दिनांक 14.09.2016 को इस पंद्रह दिवसीय कार्यक्रम का उद्घाटन हुआ। उद्घाटन समारोह में मुख्य अतिथि के रुप में श्रीमती अर्फा खानम शेरवानी, सीनियर ऐंकर, राज्यसभा टी. वी. विशेष रुप से आमंत्रित थी। संस्थान ने निदेशक प्रो. सरित कुमार दास ने श्रीमती अर्फा खानम शेरवानी जी का पुष्पगुच्छ एवं स्मृतिचिन्ह् प्रदान कर स्वागत किया। स्वागत भाषण डॉ. अरविंद कुमार गुप्ता, प्राध्यापक प्रभारी, हिंदी प्रकोष्ठ ने किया। प्रो. सरित कु.दास ने अपने वक्तव्य में कहा कि हिंदी यह एक ऐसी भाषा है जो भारत के किसी भी कोने में आप बोल सकते है लेकिन हिंदी को यदि बढ़ाना है तो उसे किसी पर थोप कर नहीं बढ़ाया जा सकता। क्योंकि किसी भी राष्ट्र का निर्माण भाषा अथवा धर्म/मजहब से नहीं होता, राष्ट्र का निर्माण संस्कृति से होता है। श्रीमती अर्फा खानम शेरवानी जी ने राष्ट्र निर्माण में सूचना के महत्व पर अपने विचार रखे। सूचना की सुलभता तथा उसका केंद्रीकरण पर भी अपने विचार रखे। इस समारोह में संस्थान के संकाय सदस्य तथा अधिकारी/कर्मचारी विशेष रुप से उपस्थित थे। अंत में श्री लगवीश कुमार, हिंदी अधिकारी ने सभी उपस्थितों का धन्यवाद ज्ञापित किया।

New Campus

Our campus is making rapid progress and inching towards completion in respect of Phase-1A buildings, namely Academic departments (Dept. of Computer Science & Engineering, Electrical Engineering, Mechanical Engineering and Chemistry), Administrative Building, Hostels and Residential quarters for Faculty and Staff. The construction works are going ahead of schedule in some of the buildings like Lecture halls and Hostels. It is expected that Phase-1A buildings will be handed over by Project Management Consultant (CPWD) anytime beginning from March-2017 to August-2017. The Institute is gearing itself towards taking over of the buildings and simultaneously planning the shifting arrangements. The auxiliary facilities like power transmission from PSPCL, setting-up of sub-stations, data networking & security, horticulture, roads & drains, street lighting, electrical panels, chillers, water recycling plant(STP&WTP), lifts, HVAC and tube wells etc all are in pipeline.

View of Campus School

With regard to Phase-1B, additional buildings namely - hostels including Guest house, Residential quarters, Library, Gate complex, limited Sports complex, Kendriya Vidyalaya and major Lecture hall (capacity-800) etc will be built. Tenders have been floated for Phase 1-B and are under evaluation by the committee. While for Phase-1B, M/s SIKKA Associates will continue to offer the architectural services, however a new architect consultant M/s A. K. A. Consultants Pvt. Ltd. has been selected for Phase-1C buildings.