Dear Friends and Well-wishers of IIT Delhi,

I am happy to present the January 2022 Issue of the Institute’s newsletter to you.

This issue will give you glimpses of the research & innovations, academic achievements, faculty awards, alumni contribution etc.

Your comments and suggestions are welcome to make the next issue of the newsletter more interactive.

Warm regards,

V. Ramgopal Rao
Director, IIT Delhi
IIT Delhi Celebrates 64th Foundation Day

On the occasion of 64th Foundation Day celebrations, Prof V. Ramgopal Rao, Director, IIT Delhi honored the Institute's faculty with the prestigious Faculty Research Awards 2021 in the presence of Chief Guest, Dr. Partha P Chakrabarti, Professor and ex-Director, IIT Kharagpur. To mark the occasion, Prof. Sanjay Sarma, Vice President for Open Learning at the MIT, USA delivered a Foundation Day Institute Lecture titled ‘How Engineering Education Can (and Should) Change’ virtually.

IIT Delhi Launches STEM Mentorship Program for Schoolgirls

The primary objectives of the STEM (Science, Technology, Engineering, Mathematics) Mentorship Program designed for Class 11th girl students are to train them to think creatively about science and innovation, to provide them novel hand-on experience in solving research problems, and to help them form a stronger knowledge foundation. Under this initiative, each schoolgirl will be mentored by an IIT Delhi faculty along with his/her research scholars. STEM aims to encourage girls to choose science as their career.

IIT Delhi Alumni Contribute to Endowment Fund

IIT Delhi alumnus Mr Mohit Mittal (B. Tech, CSE, 2000) has pledged to contribute Rs 11 cr to the Institute’s Endowment Fund over the next 5 years. He has already paid Rs. 2.5 cr as the first tranche of his contribution. Alumnus Mr Vivek Vaidya (MS, Mathematics and Computing) has also pledged Rs. 10 cr (US$ ~1.35 mn) to the Endowment Fund. Mr. Vaidya has already transferred Rs. 2.25 cr as a first tranche of his contribution. With this, both have joined the expanding league of Endowment Fund founders.

Placement Season: Students Receive Record Number of Job Offers

IIT Delhi students bagged a record number of 1250 offers up to December 15 of the placement season 2021. While the quantity of offers and hence number of unique selections was at a record high, there has been over 45% increase in the number of offers received by the campus during this period over last year. Even PPOs received this year were highest in the last five years. The quality of jobs offered in terms of compensation offered has also increased. The average compensation offered on campus this year as indicated by the recruiters has shown an increase of over 20%.

Indian Air Force Signs MoU with IIT Delhi

Indian Air Force (IAF) and IIT Delhi signed an MoU in December 2021 for various developmental projects to support the requirements of the IAF. The MoU was signed by Air Vice Marshal Samir V Borade VSM, Deputy Senior Maintenance Staff Officer (Dy SMSO), Headquarters Maintenance Command, IAF and Prof. M R Ravi, Head, Department of Mechanical Engineering, IIT Delhi. The joint partnership between the IAF and IIT Delhi aims to accelerate IAF’s indigenisation efforts for achieving self-reliance.

“Pillay Chair Professor” for Research in Machine Learning, VLSI Design and Sensors

IIT Delhi alumnus Mr Sanjay Pillay (B. Tech, Electrical Engineering, 1991) has endowed “Pillay Chair Professor” in the Department of Electrical Engineering. This chair will enhance the Institute’s strengths to promote excellence and leadership in teaching, research, and development in Machine Learning, VLSI Design and Sensors in the department.
The Research and Innovation (R&I) Park of IIT Delhi was bestowed the prestigious Façade Project of the Year Award 2021 by the Construction Week India. The judging criteria involved architectural merit, contribution to the built environment, façade engineering as a discipline, application of innovation and uniqueness of application, focus being on timely completion, quality and complexity of the project and sustainability.

India-U.S. Symposium for ‘Enhancing Fire Safety in Built-Infrastructure’

The two-day Symposium was organised at the Civil Engineering Dept., IIT Delhi in December 2021 in hybrid mode during which Dr Nandini Kannan, Executive Director, Indo-U.S. Science and Technology Forum (IUSSTF) provided brief insights on working of the IUSSTF as well bilateral cooperation and funding opportunities thereof. The Symposium consisted of total of six technical sessions with sixteen talks delivered by distinguished speakers. The Symposium was attended by participants from India, U.S., Australia, China, Ethiopia, and Middle-Eastern countries.

Collaboration between IntelliSmart and FITT, IIT Delhi

IntelliSmart Infrastructure Private Limited (IntelliSmart), a joint venture of National Investment & Infrastructure Fund (NIIF) and Energy Efficiency Services Ltd (EESL), signed an MoU with FITT, IIT Delhi to collaborate on defining next-generation smart-grid functions, advanced research to drive the development of real-time smart grid solutions with potential to achieve improved revenue management, increased billing efficiency & control, consumer satisfaction and opening up the smart grid data for many newer applications and monetization.

IIT Delhi Celebrates International Day for Persons with Disabilities

IIT Delhi celebrated the International Day for Persons with Disabilities on December 04, 2021, with the Director, Prof. V Ramgopal Rao, kicking off the “Challenging Challenges” activities. The activities were organised to sensitize and build empathy among non-disabled persons by helping them experience the challenges faced by persons with disabilities in their daily life and also value their abilities.

21st International Workshop on Physics of Semiconductor Devices (IWPSD)

The four-day virtual workshop was organized by IIT Delhi in collaboration with SSPL Delhi, and in cooperation with Society for Semiconductor Devices (SSD) and Semiconductor Society (India) in December 2021. During the IWPSD, 11 symposia were organized with topics such as III-Nitrides, 2D materials, Organic semiconductors/ flexible electronics, Photovoltaics, Emerging logic devices, Device modelling, Crystal growth and epitaxy and Semiconductor Devices for Quantum Technologies. Prof. Rajendra Singh, Physics, IIT Delhi was Chairman of the 21st IWPSD.

IIT Delhi and Business Sweden Sign MoU

IIT Delhi and Business Sweden-The Swedish Trade and Invest Council have signed an MoU in November 2021 to enhance cooperation in the field of Clean Air and Green Energy and to identify mutual collaboration opportunities, introduce innovative solutions to the industry and academia, considering continuity of India Sweden Innovations Accelerator Program and Sustainability by Sweden Showroom & Platform in India. Prof. V Ramgopal Rao, Director IIT Delhi and Ms. Cecilia Oskarsson, Trade & Invest Commissioner of Sweden to India signed the MoU.

Neilom Prize Awarded for Work in Field of Assistive Technology

Neilom Prize for the year 2020-21 for contributing to the space of assistive technology to empower people with disabilities was jointly awarded to recent graduates of IIT Delhi, Dr Richa Gupta and Mr Girish Yadav. Prof V. Ramgopal Rao, Director, IIT Delhi felicitated the winners. The award, which carries a cash prize of Rs 1 Lakh, is given every year to the best outgoing student(s) of IIT Delhi for their contribution to the area of assistive technology.
I-Hub Foundation for Cobotics (IHFC), the Technology Innovation Hub (TIH) of IIT Delhi and iHub Anubhuti, the TIH of IIIT Delhi signed an MoU in November to set up India’s first Medical Cobotics Centre (MCC) at IIIT-Delhi. The ceremony was held in the august presence of Prof. Ashutosh Sharma, former DST Secretary as the Chief Guest and Dr. K.R. Murali Mohan, Mission Director of NM-ICPS, DST.

State-of-the-art Battery Research, Charging Infrastructure and Automotive Health Monitoring (AHM) laboratories were inaugurated at the Centre for Automotive Research and Tribology (CART), IIT Delhi in November 2021. The Battery Research laboratory is equipped with advanced equipment for battery testing at cell, module and pack levels. Apart from the batteries, testing on Battery Management System (BMS) in master-slave configuration is carried out to check any faulty cell condition, by integrating cloud BMS and Digital Twin.

M.Tech in Machine Intelligence & Data Science (MINDS) will be a flagship educational programme for the school and is expected to begin in July 2022. All students with an undergraduate degree in science or engineering will be eligible for the MINDS programme. M.Tech in MINDS is planned as an industry-sponsored programme. The students will be expected to work on industry-relevant AI problems, since they will be co-advised by an IIT Delhi professor and a researcher from the sponsoring company.

To mark the 2nd anniversary of the alumni Endowment Fund on 31 October 2021, the Endowment Fund Board announced establishment of “Endowment Merit Scholarships” and “Endowment Nurture Fund”. The “Endowment Merit Scholars Program” will provide 120 merit scholarships every year to batches of 15 women and 15 men BTech/Dual degree students for each year i.e. 1st, 2nd, 3rd and 4th. The “Endowment Nurture Fund” aims to offer graduating students the opportunity to be awarded seed funding for their proposed ventures.

In pictures: IIT Delhi Celebrates 73rd Republic Day
RT-PCR-based Assay for Identification of Omicron Variant of SARS-CoV-2 Developed at IIT Delhi

Researchers at IIT Delhi's Kusuma School of Biological Sciences have developed an RT-PCR based assay for the specific detection of the Omicron (B.1.1.529.1) variant of SARS-CoV-2. The assay is based on detecting specific mutations, which are present in the Omicron variant and absent in other currently circulating variants of SARS-CoV-2. Primer sets targeting these unique mutations in the S gene were designed for the specific amplification of either the Omicron variant or other currently circulating variants of SARS-CoV-2 and tested using real time PCR. By using this RT-PCR based assay, it will be possible to test for the presence of the Omicron variant within 90 minutes. This can be used as a rapid screening assay for the identification and isolation of individuals with the Omicron variants. IIT Delhi has filed an Indian patent application for the same.

Read more: https://home.iitd.ac.in/show.php?id=81&in_sections=Press

IIT Delhi Researchers Demonstrate a New Drug Delivery Platform Technology

A technology has been developed for chemotherapy applications using Red Blood Cell (RBC) membrane by a research group at IIT Delhi's Centre for Biomedical Engineering (CBME). The technology is a significant success in achieving personalized therapy as it can be based on the RBC membrane of a patient, thereby minimizing the side-effects. The research work by Prof Neetu Singh (lead researcher) and Sahil Malhotra from the Centre for Biomedical Engineering was published in Acta Biomaterialia and is inspired by nature's own delivery vehicle - the RBCs and utilizes its long circulating nature to address a long standing problem of drug delivery of substantially prolonged drug circulation by delaying the recognition by immune cells.

Read more: https://home.iitd.ac.in/show.php?id=85&in_sections=Press

How to Select a Sustainable Medical Waste Disposal Firm? IIT Delhi Study Shows Path

Researchers led by IIT Delhi professor Dr. Surya Prakash Singh from the Department of Management Studies in a study have thrown light on how hospitals can select a sustainable medical waste disposal firm. The research paper titled 'Selection of Healthcare Waste Disposal Firms Using a Multi-Method Approach' by Prof. Singh and his collaborator Dr. Ankur Chauhan, Jaipuria Institute of Management, Noida, India was published in the Journal of Environmental Management. The aim of this study is to propose a hybrid multi criteria decision support framework integrated with mathematical model to tackle the issue of safe disposal of hazardous and infectious healthcare waste. The study shows a direction to the hospital management in selecting an economically, socially, and environmentally sustainable healthcare waste disposal firm.

Read more: https://home.iitd.ac.in/show.php?id=92&in_sections=Press

IIT Delhi Startup Developing Advanced Fabric for Monumental National Flags

IIT Delhi startup SWATRIC has designed several advanced fabric structures for the monumental National Flags, Tiranga. At the lab scale, the researchers have successfully improved the strength of the fabric by 100%. Last year, SWATRIC and the Flag Foundation of India (FFI) had joined hands with an aim to filter the best possible fabric design and structure for the monumental national flags to suit India's diverse climatic and geographical conditions. Using the advanced fabric being developed by IIT Delhi startup, the FFI has already installed two different prototypes of the monumental National Flag on the field, one in Delhi and another one in Ladakh.

Read more: https://home.iitd.ac.in/show.php?id=90&in_sections=Press
Sponsored Projects & Consultancy Jobs Undertaken Through IRD Unit During October - December 2021

- 53 Sponsored projects with a total sanctioned value of Rs. 8973 Lacs
- 73 Consultancy jobs with a total sanctioned value of Rs. 646 Lacs

High Value Sponsored Projects (Sanctioned Value Rs. 50 Lacs and Above) Undertaken Through IRD Unit During October-December 2021

- Wearable soft robotics for Upper Limb Muscle Power Augmentation with BMI interface (Sponsoring Agency- DRDO, Ministry of Defence; Sanctioned Fund- Rs 919.22 L)
- Design and development of photonic technologies for free space quantum key distribution (Sponsoring Agency- DRDO, Ministry of Defence; Sanctioned Fund- Rs 740.90 L)
- Indian Nanoelectronics Users Program - Idea to Innovation INUP-i2i (Sponsoring Agency- Ministry of Electronics and Information Technology; Sanctioned Fund- Rs 700.00 L)
- SERB National Science Chair Awarded to Prof. Bhim Singh, Dept. of Elect. Engg. (Sponsoring Agency- SERB; Sanctioned Fund- Rs 132.00 L)
- Secure photonics-enhanced communication systems (Sponsoring Agency- I-Hub Foundation for Cobotics; Sanctioned Fund- Rs 129.80 L)
- Electronic sub-system design for RADARs and Lasers (Sponsoring Agency- I-Hub Foundation for Cobotics; Sanctioned Fund- Rs 129.80 L)
- Demonstration of a bamboo processing-waste gasifier system for hydrogen rich syngas to suit thermal and engine application (Sponsoring Agency- DST; Sanctioned Fund- Rs 112.80 L)
- Advanced Characterization of Structural and Functional Materials to strengthen the research facilities of the Department of Material Science & Engineering, (Under FIST Scheme) (Sponsoring Agency- DST; Sanctioned Fund- Rs 112.00 L)
- Investigation of charge carrier dynamics and fluctuations of skyrmions in ultrathin film multilayers with interfacial Dzyaloshinskii-Moriya interaction (Sponsoring Agency- Indo-French Centre for the Promotion of Advanced Research France; Sanctioned Fund- Rs 85.47 L)
- Investigation into the influence of clinker content on the performance of limestone calcined clay cements (LC3) (Sponsoring Agency- Lafarge Centre de Recherche France; Sanctioned Fund- Rs 83.71 L)
- Design and development of an advanced 3D woven honeycomb composite structure based high energy absorbent liner for air crew helmet (Sponsoring Agency- Life Science Research Board DRDO; Sanctioned Fund- Rs 82.45 L)
- Solvation and Aggregation Within Fluorous Media: Mapping Unchartered Territory (Sponsoring Agency- SERB; Sanctioned Fund- Rs 63.36 L)
Other Significant Research Activities

Multi-Institutional Faculty Interdisciplinary Research Project (MFIRP)

a) Institute of Liver & Biliary Sciences (ILBS)

A call for collaborative research proposals between the Institute of Liver & Biliary Sciences (ILBS), Delhi and IIT Delhi was announced during this period. Proposals have been invited in the areas of use of Artificial Intelligence in Bioscience Specific to Liver & Biliary Disease, Biosensor, Computational Biology & Bio-informatics, Device Design & Fabrication Suitable for Diagnostics, etc., and Biomedical Science & Engineering.

b) University of Southern Denmark (SDU), Denmark

A call for collaborative research proposals between the University of Southern Denmark (SDU) and IIT Delhi was announced during this period. Proposals were invited in the areas of Nanotechnology, Advanced Materials, Waste Management, Food Science & Engineering, Imaging, Sustainable Technology, Electronics, Green Energy Technologies, Environmental Research, Biotechnology and Circular Economy with a submission deadline of December 10, 2021. The proposals were jointly evaluated by external experts from both sides and six MFIRP projects have been agreed.

c) University College London (UCL), UK

The third call for UCL & IIT Delhi, collaborative research project proposals, was announced in October 2021, to meet UN Sustainable Goals. The received project proposals have been evaluated jointly by the UCL & IIT Delhi expert committee and eight MFIRP have been agreed.

d) Significant Achievements of 24 Projects of AIIMS-IITD MFIRP Call 2018

- Publications - 12 published
- Conferences - Proceedings - 3
- Book Chapters - 3
- Patents - Total 5 (4 filed and 1 granted)
- Awards - 5 (4 conferences poster) & 1 technology transfer award from DST SERB on In-house developed Novel robotic exoskeleton
- Technology Developed/Transferred: 2
  i) Designed Implant for Intraocular drug delivery (For Licensing of the product-FITT has advertised the implant to many potential industries)
  ii) Novel robotic exoskeleton developed in-house that will have a significant positive outcome on the hand recovery in stroke patients (Received award from DST SERB)

MoU Signed with Tata Power

IIT Delhi and TATA Power signed an MoU in October 2021 for initiating collaborative research in broad areas like Clean Energy, Smart Grid and S&T Policy, EV infrastructure, Artificial Intelligence. Ten project proposals have been submitted to the TATA Power for funding under this MoU.

NHA, IIT Delhi Join Hands for SAMRIDH

National Health Authority (NHA) and IIT Delhi have joined hands to scale-up high-potential healthcare innovations under the SAMRIDH scheme. Through a blended financing facility, this partnership will support innovators and entrepreneurs in their efforts to improve healthcare delivery in India. IIT Delhi is serving as the hosting entity for SAMRIDH.
Awards & Academic Positions

Faculty Research Awards 2021

Sulochana & Colonel A Krishnaswami VrC, VSM** Lifetime Achievement Award (Jointly Awarded)

- Prof. Harpal Singh
  CBME, IIT Delhi
- Prof. Jayashree Bijwe
  CART, IIT Delhi

Prof. P.C.P. Bhatt Basic Research Award (Jointly Awarded)

- Prof. Sunil Kumar Khare
  Chemistry Dept., IIT Delhi
- Prof. Neeraj Khare
  Physics Dept., IIT Delhi
- Prof. Ritu Kulshreshtha
  DBEB, IIT Delhi

Prof. K.L. Chopra Applied Research Award (Jointly Awarded)

- Prof. B K Panigrahi
  CART, IIT Delhi
- Prof. Anurag S Rathore
  Chemical Engineering Dept., IIT Delhi

Mrs Veena Arora Early Career Award (Jointly Awarded)

- Prof. Saswata Bhattacharya
  Physics Dept., IIT Delhi
- Prof. Bijay P Tripathi
  Material Science & Engineering Dept., IIT Delhi
- Prof. Sanjay Dhir
  Management Studies Dept., IIT Delhi
- Prof. Kuntal Manna
  Chemistry Dept., IIT Delhi
Awards & Academic Positions

Distinguished Materials Scientist of the Year Award for 2021 by the Materials Research Society of India

Prof. Ashok Ganguli
Chemistry Dept., IIT Delhi

TUM Global Visiting Professor Award 2022 by the Technical University of Munich, Germany

Prof. Ankesh Jain
Electrical Engineering Dept., IIT Delhi

Selected for the Young Psychologist Award by the National Academy of Psychology (NAOP) India

Prof. Yashpal Jogdand
Humanities & Social Sciences Dept., IIT Delhi

Prof. M Balakrishnan
Computer Science and Engineering Dept., IIT Delhi

Named a Fellow of the Association for Computing Machinery

Prof. M Balakrishnan
Computer Science and Engineering Dept., IIT Delhi

Elected as Member of the International Union of Pure and Applied Physics (IUPAP) Commission on Plasma Physics C:16

Prof. Amita Das
Physics Dept., IIT Delhi

Selected for Membership on the Early Career Editorial Advisory Board of ACS Biomaterials Science & Engineering Journal

Prof. Sachin Kumar B
CBME, IIT Delhi
Corporate Relations

- **Denso Corporation** contributed Rs. 20 lakhs to IIT Delhi in Oct 2021 towards the second tranche for the project led by Prof. Subodh Sharma in the area of Smart Contract Driven Blockchain Applications.

- IIT Delhi faculty Prof. SS Nag and Prof. Anandarup Das have signed a consultancy project with **Ashok Leyland** in Dec 2021, in the field of high power, low voltage DC-DC converter for electric vehicles with a funding of Rs. 28 lakhs.

- An online Hacker Rank test for **Tower Research Capital India Scholarship** was conducted on 20th December 2021. Students of 3rd year from three different disciplines i.e., Computer Science & Engineering, Mathematics, and Electrical Engineering had taken this test. Tower Research Capital is associated with IIT Delhi to set up a merit scholarship for undergraduate students under their CSR initiative. The objective is to give a Scholarship to undergraduate students.

- **Dentsply Sirona CSR** - Dentsply India Private Limited entered into a CSR engagement with the Institute in December 2021. The financial support is for Prof. Arnab Chanda's project on the production of 3D Printed Facial Protection Equipment for Inhibiting COVID-19 Transmission. These 3D-printed face shields have proven to be ergonomic for prolonged wear and comfort.

- Team from IIT Delhi, led by faculties Prof. Tanusree Chakraborty and Prof. Bappaditya Manna from the Department of Civil Engineering visited Dholera Industrial City Development Limited office (ABCD Building) at **Dholera, Gujarat on 23rd November 2021**. The purpose of this visit was to do the field testing in road construction projects, check the current site status of existing and future construction, check available facilities required for installation and protection of geothermal testing setup.

(Picture: Dholera site visit)
### Alumni Relations

#### New Scholarships Instituted by Alumni (Oct-Dec 2021)

<table>
<thead>
<tr>
<th>Scholarship Title</th>
<th>Donor Name</th>
<th>Area</th>
</tr>
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<tbody>
<tr>
<td>Batch of 1968 Electrical Scholarship</td>
<td>1968 Electrical Engineering Batch</td>
<td>BTech/Dual degree program in Electrical Engineering</td>
</tr>
<tr>
<td>Class of 1974 Scholarship</td>
<td>Class of 1974</td>
<td>BTech/Dual degree program in Electrical Engineering for female student</td>
</tr>
<tr>
<td>Prof. Birendra Kumar Sawhney Scholarship</td>
<td>Smt. Kamlesh Sawhney</td>
<td>For 1st year student of M.Sc Physics</td>
</tr>
<tr>
<td>Prof. Narendra Kumar and Shaila Bansal Scholarship</td>
<td>Ms. Shalini Bansal and Mr. Anubhav Bagley</td>
<td>BTech/Dual degree program for female student</td>
</tr>
<tr>
<td>Indu and Vijay Godura Scholarship</td>
<td>Ruchir Godura</td>
<td>BTech/Dual degree program in Electrical Engineering</td>
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#### New Awards Instituted by Alumni (Oct-Dec 2021)

<table>
<thead>
<tr>
<th>Award Title</th>
<th>Donor Name</th>
<th>Area</th>
</tr>
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<tbody>
<tr>
<td>Bimal Kumar Mahendroo Award for the Best Cricketer</td>
<td>Class of 1981</td>
<td>For best cricketer adjudged amongst all the graduating students (Bachelor, Master and Phd)</td>
</tr>
<tr>
<td>S V Divaakar Award for Best Musician (Indian Music)</td>
<td>Class of 1981</td>
<td>For best musician(Indian Music) adjudged amongst all the graduating students (Bachelor, Master and Phd)</td>
</tr>
<tr>
<td>Prof. T K Ghose Memorial Award and Lecture</td>
<td>Multiple Donors</td>
<td>For best Phd thesis in Biochemical Engineering and BioTechnology</td>
</tr>
<tr>
<td>Shrimati Pavitra Devi Award</td>
<td>Dr. Anju and Sheel Aditya</td>
<td>To UG student (BTech and Dual degree), preferably a girl student, to promote academic excellence together with noteworthy contribution for promotion of Hindi language.</td>
</tr>
<tr>
<td>Dr. Sanjiv Bhatia Memorial Research Excellence Award</td>
<td>Sandip Bhatia and Family Members</td>
<td>All students who have completed their Phd thesis (including Oral Defense) in Centre for Biomedical Engineering research.</td>
</tr>
<tr>
<td>Batch of 1995 ACE Student Award</td>
<td>Vishal Chadha</td>
<td>To a student for excellence in academics,cultural and extra-curricular activities amongst all the graduating BTech and Dual degree students (across all disciplines)</td>
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#### New Chairs Instituted by Alumni and Others (Oct-Dec 2021)

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<thead>
<tr>
<th>Chair Title</th>
<th>Donor Name</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>N K Jha Chair</td>
<td>Rakesh Jha, Rajesh Jha, Apoorva Jha Bansal, Aparna Ahuja</td>
<td>Department of Chemistry</td>
</tr>
<tr>
<td>Pillay Chair Professor</td>
<td>Sanjay Pillay</td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>IHFC Chair Professor</td>
<td>I-Hub Foundation for Cobotics</td>
<td>Collaborative robotics and associated technology domains including Medical Robotics, Manufacturing, Automation, Sensing and Communication, Artificial Intelligence, Machine Learning etc</td>
</tr>
</tbody>
</table>
INTERNATIONAL PROGRAMMES

International Meetings with:

- A two-member delegation from the Financial University under the Government of the Russian Federation - 01st October 2021.
- Mr. Wad Mohamed Awad Hamed from the Embassy of Republic of Egypt - 29th October 2021.
- Mr. Steve Daines (US Senator) - 08th November 2021.
- Mr. Karim Massimov, Former Prime Minister, Kazakhstan - 10th November 2021.
- H.E. Mr. Alexander Alex Ellis CMG, High Commissioner, British High Commission, and a leadership team from British Council visited IIT Delhi on 16th December 2021 and met the Director, Deans, and faculty members. He also interacted with undergraduate students at the Institute and visited the Nanoscale Research Facility on the campus.

Events:

**Student-led virtual engagement between University of Waterloo and IIT Delhi**

In a bid to further their relationship, the University of Waterloo and IIT Delhi collaborated on a student-led workshop about issues related to sustainable development in their respective countries. Ten students from each institute were presented with two real-world case studies highlighting the challenges in access to affordable and clean energy faced by Canadian and Indian communities in the first part of the Sustainability Challenge held on 30th October 2021. The second part - Innovation Lab, took place on 27th November 2021, wherein all students met again and discussed their proposed solutions with the respective teams. The event commenced with a warm exchange between Prof. Ian Rowlands, Associate Vice-President International, University of Waterloo, and Prof. Naveen Garg, Dean, International Programmes, IIT Delhi.


**Joint Programme between IIT Delhi and Universiti of Brunei Darussalam**

On 1st November 2021, IIT Delhi and Universiti Brunei Darussalam hosted a student-led virtual event in an effort to strengthen their cooperation and develop rapport so that students from both universities come together, discuss ideas that are relevant to both universities, and foster friendship among those lines from people of various cultures. The event entailed five students from each university working together and infusing their diverse experiences into presentations on “The shift to online learning in educational institutions amidst the Covid-19 Pandemic”. The students worked in groups to analyze the different aspects of this challenge and propose possible solutions for both universities.

Memorandum of Understanding signed with:

- City University of Hong Kong (renewal) for student exchange on 29th October 2021