

INDIAN INSTITUTE OF TECHNOLOGY DELHI



Quarterly

NÉWSLETTER

December 2023 ISSUE

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Placement Season 2023-24: Phase 1

IIT Delhi students have received around 1050 job offers, including pre-placement offers (PPOs), with around 1000 students being uniquely selected after the conclusion of phase 1 of the placement season for the academic year 2023–24. 50-plus international offers (including PPOs) from around 20 international organizations across geographies spanning Hong Kong, Japan, the Netherlands, Singapore, South Korea, Taiwan, the United Arab Emirates, the United Kingdom, and the United States were received by the students. Top recruiters on the campus in the first phase in terms of the number of students offered jobs include Air India, Microsoft, Texas Instruments, Goldman Sachs, Bajaj Auto, and Ola Electric.





Kaspersky, IIT Delhi Partner to Foster Local Cybersecurity Talent Development in India

Under the agreement, Kaspersky and IIT Delhi will work together to promote cybersecurity education and research to build a more robust cybersecurity workforce in India. The agreement demonstrates both parties' efforts to foster closer cooperation to enhance the security of the computing environment in the nation and beyond. The MoU includes exchanging knowledge and expertise, developing educational materials, organising and promoting events to raise cybersecurity awareness, and sponsoring merit (academic) awards or prizes to encourage IIT Delhi students to pursue careers in ICT and Cybersecurity.

28th Inter IIT Staff Sports Meet 2023: IIT Delhi Wins General Championship (Men's)

IITDelhi won the General Championship (Men's) for the fourth year in a row at the 28th Inter IIT Staff Sports Meet 2023, organised at IIT Gandhinagar. IIT Delhi also won: Gold in Overall Athletics (Men's); Silver in Lawn Tennis (Men's); Bronze in Badminton (Men's), Volleyball (Men's) and Cricket (Men's)



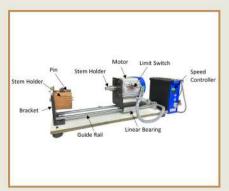


Yuva Sangam Phase 3: Participants from Andhra Pradesh Visit New-Delhi

A delegation from Andhra Pradesh visited New Delhi as part of Yuva Sangam Phase 3. Hosted by IIT Delhi, Yuva Sangam Phase 3 was inaugurated by the Lieutenant Governor of Delhi, Shri Vinai Kumar Saxena. The delegates visited Rashtrapati Bhavan Museum, Lotus Temple, Bharat Mandapam, Qutub Minar, Red Fort, Pradhanmantri Sangrahalaya, Dilli Haat etc., along with IIT Delhi students. The participants also had an insightful and interactive session with AICTE Chairman Prof. T.G. Sitharam.

RuTAG Transfers Fabrication Technology for "Wooden Bead Making Device" to Industry

The Rural Technology Action Group (RuTAG) at IIT Delhi has transferred a technology to fabricate an AC motor-powered wooden bead-making device to Harraj Industries. The design of the device is protected under design registration in the Indian Patent Office. The technology was transferred through FITT-IIT Delhi. The device will benefit the rural sector, particularly the women in Mathura, Vrindavan, and neighboring areas of Uttar Pradesh, India. The third and latest version of the device proposed by an IIT Delhi PhD student, Mr. Yashwant Prasad, is almost noiseless. It has also enhanced the daily productions and earnings of the artisans to about Rs. 3000 per day from Rs. 700–800 per day.





Media Delegation from African Countries Visit IIT Delhi

A delegation of 30 journalists from African countries (Botswana, Eswatini, Ethiopia, Kenya, Malawi, Mozambique, Nigeria, Namibia, Tanzania, Uganda, Zambia, Zimbabwe, Rwanda, Eritrea, Madagascar and Comoros) visited IIT Delhi. During the visit, the journalists witnessed state-of-the-art facilities at the Central Workshop, which is one of the pivoting units at the institute, teaching conceptually "how" a product comes to its present form by way of imparting core manufacturing education to the students. The journalists also interacted with Prof. PVM Rao, Dean, Alumni Relations and Mr. Atul Vyas, Registrar, IIT Delhi.

UBA, CRISP Sign MoU

A Memorandum of Understanding (MoU) was signed between Unnat Bharat Abhiyan, the flagship program of Ministry of Education nationally coordinated by IIT Delhi, and Centre for Research in Schemes and Policies (CRISP). The MoU was signed by Prof. Naresh Bhatnagar, Dean R&D, IIT Delhi, and Shri. R. Subramanian, former Higher Education Secretary to GoI, in the presence of Prof. V.K Vijay, National Coordinator, Unnat Bharat Abhiyan. The MoU strives to integrate the localization of Sustainable Development Goals into Gram Panchayat Development plans.



Combining Technology with Art Forms to Offer a Holistic Educational Experience to Materials Engineering Students

Prof. R. Lakshmi Narayan from the DMSE conducted an experiment with his third-year undergraduate students by dividing them into 6 teams of 6 members each. Each team was required to read a technical paper from the journal, Acta Materialia, and explain it using art forms like plays, music, interpretative dance shows, memes etc. His initiative, combining art, technology, and soft skills, builds on a series of experiments aimed at infusing vitality into the traditionally perceived 'research-heavy' field of Materials Engineering.

Over 30 High School Girls Successfully Complete Second STEM Mentorship Program

The second batch of the STEM Mentorship Program for school girls, which IIT Delhi launched in February 2023, saw 32 high school girls complete it successfully. The second batch of the program was held in two phases. In the first phase, held over the weekends in March and April, the selected students from schools in Delhi-NCR were given exposure to IIT Delhi facilities, where they visited different research facilities. In the second phase, a STEM workshop that was held in May for a week, the participants were provided expert knowledge by IIT Delhi faculty members and research scholars from various academic units on different emerging areas. In this phase, the participants also got hands-on experience in various labs. The Office of Academic Outreach and New Initiatives at the Institute held a felicitation ceremony for the student participants on November 30, 2023, to recognize their dedication.





IITD-Abu Dhabi Campus: M. Tech. Program in Energy Transition and Sustainability to Commence in January 2024

The Master's program in Energy Transition and Sustainability will provide a robust foundation on technologies and policies related to the energy transition, one of the most important topics of the present time. IIT Delhi, ADEK, and ADNOC partnership will offer 15 scholarship places for the inaugural Master's program and 10 more scholarships for other meritorious applicants. The Master's program will provide a robust foundation on technologies and policies related to the energy transition, one of the most important topics of the present time. It will also allow candidates to specialise in two areas: 'Technologies for Decarbonization' and 'Economics, Policy and Planning for Energy Transition.' Students can opt to choose a blend of courses from the two areas.

IIT Delhi Showcases Cutting-Edge Research to School Students at the Open House 2023

IIT Delhi organised the 16th edition of the Open House, its flagship event for school students in November, wherein some of the cutting-edge research works were displayed for them by the Institute faculty and students. Around 2000 school students from over 40 schools in the Delhi-NCR region visited IIT Delhi to witness and participate in various educational activities organised as part of the Open House. The Open House exhibited an extensive collection of innovative research and product development projects. The researchers showcased around 50 functional demos and 100 research posters highlighting cutting-edge technologies. The school students also visited around 80 laboratories.



Vice-President of India Visits IIT Delhi and Interacts with Students

While interacting with the students, the Hon'ble Vice President of India, Shri Jagdeep Dhankhar, said, "It is an absolute delight and privilege to be amongst you all. In a country of 1.4 billion, you have such a gathering of brilliant minds, you have got into this place by taking one of the toughest examinations on the planet, and it is indeed a delightful moment for me. IIT makes a difference in your life and it sure will. In turn you are bound to make an impactful, affirmative, meaningful difference in the lives of people and humanity. IIT alumni have done that very commendably. It is known to the world and the world has recognised it. This institution with a rich legacy of Excellence has been a beacon of light in India's educational landscape for over six decades. It has produced some of the brightest minds that have gone on to shape the destiny of not just this country but of the world".





DAKSH CoE for Law and Technology at IIT Delhi Launches a Book Titled 'Technology and Analytics for Law and Justice'

The book was launched by Hon'ble Mr. Justice Rajiv Shakdher, Delhi High Court. IIT Delhi's Prof. Nomesh Bolia, Coordinator, DAKSH CoE, and Mr. Surya Prakash BS, Fellow and Programme Director at DAKSH, Bengaluru, have edited the book. This book is a unique volume from the DAKSH CoE and examines the evolution of technology in the law and justice system in India. It delves into the challenges and opportunities presented by technology, current thinking on the subject, and what the future may hold for this rapidly developing field.

37th Inter-IIT Aquatics Meet: IIT Delhi Wins Aquatics Men's Championship for First Time

In a triumphant moment at the 37th Inter-IIT Aquatics Meet organised at IIT Gandhinagar in October, IIT Delhi etched its name in history by securing the coveted Aquatics Men's Championship for the first time. The men's team displayed exceptional prowess, accumulating an impressive 42 points with a stellar haul of 5 Gold, 2 Silver, and 1 Bronze medal. Their versatility shone as they clinched the fourth position in water polo, underscoring their dominance in aquatic sports.





IIT Delhi and HORIBA India Jointly Hold Tech Symposium on 'Solutions for Semiconductor Industry'

With this initiative, HORIBA India aims to bring industry and academia together to facilitate group learning, joint research projects and workforce development for semiconductor manufacturing to overall support creating a dynamic Semiconductor ecosystem in India.

First of Its Kind 'Medical Cobotics Centre (MCC)' Inaugurated

iHub Anubhuti-IIITD Foundation (Technology Innovation Hub of IIIT-Delhi) and iHub Foundation for Cobotics (IHFC, Technology Innovation Hub of IIT Delhi) have inaugurated their joint medical facility, 'MCC-Medical Cobotics Centre' on the Indraprastha Institute of Information Technology (IIIT) Delhi campus. The DST has funded this joint facility. The Medical Cobotics Centre is aimed at being India's first state-of-the-art technology-enabled medical simulation and training facility for doctors, paramedics, technicians, engineers, biomedical researchers, and entrepreneurs. The Centre is also equipped to offer hands-on simulation training to the medical fraternity across the country.





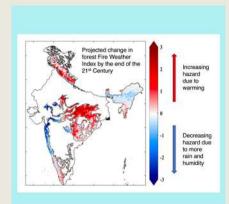
Amrit Kaal Vimarsh on Viksit Bharat@2047 Lecture Series

Dr. R. Chidambaram, former Chairperson, BoG, IIT Delhi and former Principal Scientific Advisor, Government of India, delivered a lecture titled 'From Raman Effect to Nuclear Power' at IIT Delhi in September under Amrit Kaal Vimarsh on Viksit Bharat@2047 Lecture Series.

RESEARCH & INNOVATION

Climate Change Will Affect Fire Weather Danger in Indian Forests: Study

Human activity is causing the earth's climate to change in unprecedented ways. Atmospheric temperatures are rising rapidly and will continue to rise in the future. These warming temperatures will increase the fire weather danger in many Indian forests, according to a recent study by IIT Delhi. IIT Delhi researchers at the Centre for Atmospheric Sciences developed a very high-resolution data set of future climate projections and used that data to calculate the Fire Weather Index (FWI) for forest regions of India. The results showed that forests in Central and South India and the Himalayan region will see significant increases in FWI by the end of the century. The fire season in these regions will also increase by 12-61 days.



Read more at: https://home.iitd.ac.in/show.php?id=51&in_sections=Research



Researchers Develop Real-Time Bioelectrochemical Sensor for Rapid Water Quality Monitoring

The Electromicrobiology Group at IIT Delhi's Department of Biochemical Engineering and Biotechnology has developed a sensor for real-time water quality monitoring using electricity-generating microorganisms. Known as "electroactive microorganisms", these microbes generate an electrical current and are widely researched for power generation but can also be used for biosensing. Specifically, the bioelectrochemical sensor that was developed uses "weak electricigens", a category of electroactive microbes that are known for generating low levels of electricity. When the weak electricigens encounter a pollutant, their current output decreases. By measuring their extracellular current continuously, the approach facilitates real-time monitoring of water quality.

Read more at: https://home.iitd.ac.in/show.php?id=49&in sections=Research

Researchers Proposes Solutions for Fair Compensation to Food Delivery Agents in India

The gig economy model has been a driving force in India's online food delivery industry, making it difficult for delivery agents to secure their rightful earnings. Additionally, food delivery platforms have faced challenges in increasing order delivery fees beyond a certain point, creating a complex dilemma for all stakeholders involved. While online food delivery companies often cite the gig nature of the work and operational constraints as barriers to implementing local minimum wage guarantees, researchers at IIT Delhi developed a unique approach, which they have named "Work4Food", that not only guarantees government-mandated minimum wage compensations for delivery agents but also seeks to minimize platform costs while ensuring customer satisfaction. Their proposal was also presented at the prestigious International Joint Conference on Artificial Intelligence (https://www.ijcai.org/proceedings/2022/0711.pdf).



AFM scratch silica glass severe plastic plowing stress shielding & superlubricity stress shielding & superlubricity uttra scratch resistance

Ultrathin Graphene Coating Can Make Glasses Extremely Scratch-Resistant

Scratches on glass surfaces, besides ruining the aesthetics, are also detrimental from a practical standpoint since they pave the way for easy cracking. Being not entirely "scratch-proof," the only alternative, therefore, is to make the glasses more "scratch-resistant" by altering the surface properties, specifically the friction, which is known to dictate the extent of damage on glasses. Addressing this challenge, researchers at the Materials Science and Engineering and the Civil Engineering Department have demonstrated that the deposition of atomically thin two-dimensional material like graphene can remarkably increase the scratch durability of glass surfaces by leveraging its two fundamental characteristics – slipperiness and rigidity.

Read more at: https://home.iitd.ac.in/show.php?id=48&in_sections=Research

RESEARCH & INNOVATION



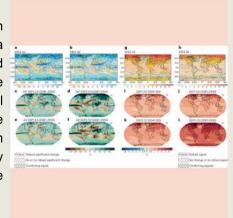
Creation of a New Mission Energy Access Programme to Support Global Goal of Ending Energy Poverty by 2030 Proposed

Access to clean energy is essential to sustainable human development. A team of researchers and practitioners from across the globe has proposed the creation of a new Mission Energy Access programme to support the global goal of ending energy poverty by 2030. In a paper titled "Mission Energy Access for a just and sustainable future for all" published in the reputed journal Nature Energy, the authors noted that despite efforts to enhance energy access, there were about 675 million people worldwide who had no access to electricity and about 2.3 billion people who had no access to clean cooking facilities in 2021.

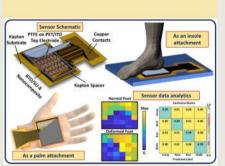
Read more at: https://home.iitd.ac.in/show.php?id=47&in_sections=Research

'Need for Actionable Climate Projections Across the Global South'

Researchers at IIT Delhi, in collaboration with National Center for Atmospheric Research (NCAR) USA; Massachusetts Institute of Technology (MIT), USA; University of Arizona (UoA), USA; Council on Energy, Environment and Water (CEEW) New Delhi; and Second Institute of Oceanography (SIO) China; have published a study titled "A Need for Actionable Climate Projections Across the Global South" in Nature Climate Change – a leading journal in the discipline of climate change. An analysis of the last six generations of the Intergovernmental Panel on Climate Change (IPCC) assessments by the research team has unravelled that future climate projections made over the last three decades were highly inconsistent and self-contradictory across the Global South. This has compounded the many challenges it faces in adapting to climate change



Read more at: https://home.iitd.ac.in/show.php?id=46&in sections=Research



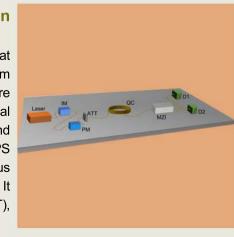
Scalable Wearable Pressure Sensor Developed

Researchers have been working extensively on postural deformity detection and their efficient corrections. Studies indicate that the most prominent deformities include splay foot, flat foot, unstable hind foot with protruding heels, high arches, and irregular gait. The flexible wearable sensors adhere to the irregularities as mentioned above, wherein the application of specific pressure patterns has a one-to-one association with the type of abnormality. Researchers at IIT Delhi have developed one such scalable wearable pressure sensor based on a nanocomposite material, that has unique combination of light-sensitive polymer and piezoelectric nanoparticles, which offers the advantage of easy array design for pixelated sensing over large area, simple process flow, and low-cost implementation for human movement monitoring and injury rehabilitation.

Read more at: https://home.iitd.ac.in/show.php?id=45&in_sections=Research

Trusted-node-free Secure Quantum Communication for 380 km in Standard Telecom Fiber Achieved

In a recent experimental breakthrough on secure quantum communication, researchers at IIT Delhi have achieved a trusted-node-free quantum key distribution (QKD) up to 380 km in standard telecom fiber with a very low quantum bit error rate (QBER). This long secure length is the highest achieved so far, not only in India but first globally for the Differential Phase Shift (DPS) QKD protocol, keeping IIT Delhi at the forefront of research and development in quantum communication technologies. Such low QBER enables the DPS QKD scheme resistant to collective and individual attacks and implementable for various applications, such as securing financial transactions, medical records, and secret codes. It is also capable of securing network communication, such as the Internet of Things (IoT), and is ready to revolutionize the field of cyber security.



Read more at: https://home.iitd.ac.in/show.php?id=44&in_sections=Research

INDUSTRIAL RESEARCH AND DEVELOPMENT

Sponsored Projects & Consultancy Jobs Undertaken Through IRD Unit

(September - November 2023)

- 65 Sponsored Research Projects with a total sanctioned value of Rs. 47.45 Crores
- 10 Miscellaneous Projects with total sanctioned value of Rs. 1.76 Crores
- 77 Consultancy Jobs with a total sanctioned value of Rs. 7.54 Crores

High Value Sponsored Projects (with sanctioned value Rs. 1.00 Cr and above)		
Title	Sponsoring Agency	Sanctioned Funds (Rs. Crores)
Sustainable process optimization for high-performance fibrous waste management and valorization	National Technical Textiles Mission, Ministry of Textiles, Gol	8.88
Development of thermoregulating smart textiles with encapsulated nano/micro sized phase change materials for sportswear application	National Technical Textiles Mission, Ministry of Textiles, Gol	5.44
Rural Technology Action Group (RuTAG) 2.0 Centre	Office of the Principal Scientific Adviser, Gol	3.62
Development of Performance Grade (PG) Specifications of Asphalt Binder Binders in Indian Context	Ministry of Road Transport and Highways, Gol	3.07
Valorization of textile waste to value-added, reverse-processable porous scaffolds for selective sorption and separation	National Technical Textiles Mission, Ministry of Textiles, Gol	2.55
Development of hydrogenated thin nano-crystalline silicon as a carrier-selective layer for silicon hetero-junction solar cells	Department of Science & Technology, Gol	1.10

High-Value Consultancy Jobs (with sanctioned value Rs. 0.50 Cr and above)		
Title	Sponsoring Agency	Sanctioned Funds (Rs. Crores)
Development and Testing of Railway Traction and Auxiliary Converters - Specification No. RDSO/2008/EL/SPEC/0071, Rev.5 Issued in June 2016	Govik Industries Private Limited, India	0.59

Other Significant Research Related Activities

• IRD Student Startup & Discover & Learn Projects Call - 2023

The call for IRD Student Startup Action and Discover & Learn (1-2-3-4) Scheme 2023 with a deadline of October 20, 2023, received 22 proposals from student teams in different research fields. 12 project proposals were selected in the research areas of Magnetic Field Sensors, Power System for Low Pressure, Multimodal Smart Device, LIDAR based Detection for an Autonomous Vehicle, Hyperloop, Optic Sensors for Oil and Gas Infrastructure, Kinase/Phosphatases as Targets for Therapy, CFRP Monocoque Chassis and Aerodynamic Devices for Race Cars, Physical Unclonable Function based on Colloidal Quantum Dots, Battery Pack for EVs Using Cylindrical Li-ion Cell, and Camera-based Automated Dimension Measurement System.

UCL-IITD Joint Projects Call - 2023



Twenty proposals were received in response to the 5th call for joint collaborative research proposals between University College London (UCL) and IIT Delhi. Six joint project proposals, namely in the research areas of Advancing Research on Walk, Design and Manufacturing of Fatigue-Resistant Lightweight Architected Metamaterials, Co-creating Social Inclusivity Parameters for Disaster

Governance at the Local Level: A Collaborative Exercise Between Academicians and Policymakers, Revolutionizing Muscle Fatigue Measurement for Medical Students in Physiology Education, Starch-Derived Reusable Membrane Technology: A Sustainable Solution to Global Water Crisis, and Design of EV Charging Network: Towards Sustainable and Affordable Energy, were selected based on the recommendation of the expert committee.

SDU-IIT Delhi Joint Project Meeting



A review of the ongoing six projects between the University of Southern Denmark (SDU) and IIT Delhi was conducted on October 11, 2023. Significant progress in terms of four international journal publications, three filed patent applications, the presentation of one paper at a conference and two posters at an international conference,

as well as the submission of a joint project proposal to an external funding agency, are the major outcomes of this first joint research collaboration call. SDU and IIT Delhi plan to further enhance the research collaboration between the two institutions and industry partners in the near future.

INDUSTRIAL RESEARCH AND DEVELOPMENT

Memorandum of Understanding

MoU with NYCU Taiwan Renewed

IIT Delhi renewed the MoU for Academic Cooperation with the National Yang Ming Chiao Tung University (NYCU), Taiwan. The MoU originally signed in 2018 was renewed on October 30, 2023, for another 5 years during the visit of NYCU delegates to IIT Delhi to further strengthen the joint collaborative research between the two institutions. A workshop was held on joint research activities, including ongoing joint interdisciplinary projects (MFIRP) and the research progress of joint doctoral students. Further, a team of IIT Delhi faculty members, including Dean R&D, visited NYCU from December 11-12, 2023, to discuss multi-modal strategies to further enhance the research and joint doctoral program activities between the two institutions.



Fig. 1: Visit of NYCU delegates at IIT Delhi



Fig. 2: Visit of IIT Delhi delegates to NYCU

IIT Delhi, UCL Discuss Future Collaboration

A delegation from the University College of London (UCL), led by Prof. Geraint Rees, Vice Provost (Research, Innovation, and Global Engagement), visited IIT Delhi on November 20, 2023, to discuss the opportunities for future collaboration. This includes joint research collaboration for product realization, a faculty exchange program for big grant proposals, a joint master's degree/ joint PhD degree, a joint workshop on specific research areas of mutual interest, and a tripartite agreement between IIT, UCL, and AIIMS (with particular emphasis on healthcare engineering).





THDC India Limited (THDCIL)

THDC India Limited (THDCIL), a Central Public Sector Enterprise, and IIT Delhi signed a Memorandum of Understanding (MoU) forging a collaborative partnership to advance research and development activities in science, engineering, and technology. Sh. S. K. Chauhan, HoD (R&D) from THDCIL, and Prof. Naresh Bhatnagar, Dean (R&D), IIT Delhi, signed the MoU on October 12, 2023. The agreement is set to span five years.

World Intellectual Property Organization (WIPO)

IIT Delhi signed an MoU with the World Intellectual Property Organization (WIPO). WIPO has sponsored a DBT Bio-Design Fellowship for two international fellows at IIT Delhi who will be working on global health challenges. Prof. Naresh Bhatnagar, Dean (R&D), signed the MoU on behalf of IIT Delhi on October 12, 2023, in the presence of Hon'ble Minister of State (IC), Ministry of Science & Technology, Dr. Jitendra Singh; DG CSIR; Secretary DBT; and Secretary DST. Prof. Deepak Joshi, Principal Investigator of the Bio-Design Program of the Centre for Biomedical Engineering at IIT Delhi, and Prof. Sandeep Singh, Department of Cardiology, AIIMS, and Principal Investigator of the Bio-Design Program at AIIMS, were also present during the MoU signing ceremony, along with other dignitaries from IIT Bombay, DBT, DST, and CSIR.



INTERNATIONAL CONNECT

Foreign Dignitaries @ IIT Delhi

December

Six-member delegation from University of California, Santa Cruz

November

- Higher Education and Research delegation from Sweden
- Mr. Damian Lodge, Deputy Vice-Chancellor, Student Life at Lincoln University
- · Prof. Koen Lamberts, President and Vice Chancellor, Univ y of Sheffield
- Dr. Andrew Forrest, Executive Chairman of Fortescue (Invest & Trade Western Australia)
- · Prof. Robert Jones, Chancellor of the University of Illinois Urbana

October





- Vice President of the Dominican Republic, Her Excellency Ms. Raquel Peña Rodríguez, visits IIT Delhi
 During her visit, the Ministry of Higher Education, Science, and Technology of the Dominican Republic (MESCYT) and IIT
 Delhi signed an MoU for academic collaboration. Her Excellency, Ms. Raquel Peña Rodríguez, also interacted with startups at
 the institute's Research and Innovation Park.
- · Christophe Biernacki, Deputy Scientific Director, Inria France
- · Prof. Robin Banerjee and Prof. Chirantan Chatterjee, University of Sussex
- Mr. Takahiro Okazawa, President, HIOKI E.E. Corporation, Japan
- · Prof.dr.ir Tim van der Hagen President of the Board and Rector Magnificus of TU Delft

September



H.E. Dr. Ali Achoui, Ambassador of Algeria

- Delegation from Sophia University, Japan, led by Chancellor Fr. Sali Augustine
- Delegation of Australian MPs, namely Mr. Battin, Mr. Richard Riordan and Mr. Wayne Farnham

Memorandum of Understanding (MoU) Signed with:

- Tohoku University, Japan October 30, 2023
- National Yang Ming Chiao Tung (NYCU) University, Taiwan October 30, 2023
- DAAD: German Academic Exchange Service, Germany October 10, 2023

CORPORATE RELATIONS

Partnership with Volvo Group CSR Trust

In a remarkable collaboration aimed at driving innovation for community service, Corporate Relations, IIT Delhi, has forged a strategic partnership with Volvo Group CSR Trust, the philanthropic arm of Volvo Group India Pvt. Ltd. An MoU was signed by Prof. Preeti Ranjan Panda, Dean Corporate Relations, and Mr. G V Rao, Director of Corporate Social Responsibility & External Industry Affairs at Volvo Group India Pvt Ltd. to embark on a pioneering R&D endeavour focused on the development of a low-cost battery pack energy storage system for stationary applications, utilizing retired batteries post their initial use.



(Image: Donaldson delegation visit)

Visit to Rockman Industries' Bawal Plant

IIT Delhi's faculty members. Prof. Abhishek Das, Dr. Prithviraj Mukhopadhyay, and Prof. Krishnakant Agrawal from the Department of Mechanical Engineering visited Rockman Industries' Bawal Plant on September 25th. During the meeting, Mr. Sanjeev Prabhakar, Head of R&D and Business Excellence at Rockman, explored various avenues for potential collaboration with IIT Delhi, alongside other members of the Rockman team.



(Image: Visit to The Hitech Robotic Systemz Ltd (THRSL)



(Image: MoU signing with Volvo Group CSR Trust)

Donaldson Inc. Visits SeNSE

The Donaldson Inc. Team had the privilege of visiting the Centre for Sensors, Instrumentation and Cyber Physical System Engineering (SeNSE) at IIT Delhi, where innovative ideas converged. In a fruitful meeting with Prof. Shahid Malik, they delved into exciting possibilities for collaboration in various domains.



(Image: Rockman Industries plant visit)

Visit to The Hitech Robotic Systemz Ltd.

A team of IIT Delhi faculty comprising Prof. Shashank Bishnoi, the Hi-Tech Chair Professor from the Department of Civil Engineering, and Prof. Chetan Arora from the Department of Computer Science and Engineering visited The Hitech Robotic Systemz Ltd. (THRSL), setting the stage for research collaboration between the two entities in the field of safe and smart mobility.

CORPORATE RELATIONS

CSR Collaboration with Toshiba Software India Pvt. Ltd

In this partnership, Prof. Amit Gupta and Prof. Anurag Goyal from the Department of Mechanical Engineering will develop an immersion cooling solution for prismatic lithium-ion batteries to enhance their safety. This initiative stems from an intent to advance the cooling technology for battery cells and packs, which are seeing rapid proliferation and utilization across automotive and various other industries.

• BRO Partners with IIT Delhi Researchers

The Border Roads Organisation (BRO), a statutory body under the Ministry of Defence, Government of India, signed a project with IIT Delhi under which Prof. Dibakar Rakshit from the Department of Energy Science and Engineering and Prof. B. Premachandran from the Department of Mechanical Engineering will conduct comprehensive research on implementing sustainable infrastructure in shelters for casually paid laborers working in high-altitude border areas.

IOCL Representatives' Visit

In a significant step towards fostering industry-academic partnerships, Indian Oil Corporation Limited (IOCL) representatives visited IIT Delhi. The purpose of the visit was to explore the possibility of conducting a specialized training program for IOCL executives in collaboration with IIT Delhi.

R Systems' Delegation Visit

A delegation from R Systems, led by Mr. Prem Goswami, Vice President of Human Resources, met with Prof. Preeti Ranjan Panda, Dean Corporate Relations, IIT Delhi, followed by a visit to the CoE on Smart Manufacturing to explore potential avenues for collaboration. Within this productive exchange, a multitude of innovative concepts were deliberated upon, with the shared goal of fostering a harmonious relationship that promises mutual benefit.

Hamilton Housewares Partners with IIT Delhi

Hamilton Housewares Pvt. Ltd. has entered into a transformative partnership with IIT Delhi. The project aims to revolutionize cooking technology to address India's significant energy demand. Led by Prof. Snehasish Panigrahy from the Department of Energy Science and Engineering, the project has already demonstrated impressive gains in thermal efficiency and emissions reduction.

• Representatives from the **Times Group** visited the IITD-AIA Foundation for Smart Manufacturing Centre of Excellence, followed by a meeting with Prof. Sunil Jha, Department of Mechanical Engineering. Their engagement and interest in IIT Delhi's research initiatives further strengthened the collaborative bridge between academia and industry and paved the way forward to the positive impact this partnership can have on both realms.

HPCL-Mittal Energy Limited (HMEL) and IIT Delhi have formalized their collaboration through a Memorandum of Understanding. This strategic partnership aims to foster innovation and research initiatives between industry and academia. The agreement outlines the framework for joint projects, knowledge exchange, and collaborative research endeavors. By combining the expertise of HMEL, a prominent player in the energy sector, with the academic excellence of IIT Delhi, this collaboration is poised to make significant contributions to advancements in technology, sustainable practices, and the overall growth of the energy industry. The MoU represents a shared commitment to pushing the boundaries of knowledge and leveraging collective strengths for mutual benefit and societal impact.

• A Joint Development Agreement has been signed with Sony India Software Center Pvt. Ltd. to explore and expand the industrial applications of Sony's Spresense platform for the development of an intelligent extrusion-based polymer 3D printer for support-free part production. The principal investigator for this project is Prof. Sagar Sarkar, along with Prof. Amber Srivastava (Co-Pl) from the Department of Mechanical Engineering.

ALUMNI RELATIONS



Season of Alumni Reunions

The season of alumni reunions has begun at IIT Delhi. Reunions of the batches of 1973, 1981, 1988, and 1998 that were organised in December have set a new milestone for attendance. IIT Delhi will organise more than a dozen alumni reunions from December 2023 to April 2024.

Along with reconnecting alumni with their batchmates, reunions involve multiple activities, including alumni's visits to their departments and hostels, interaction with faculty, staff, and administration, and exploring opportunities to give back to their alma mater in terms of their talent, time, and treasure.

Members from the 1973 batch said, "We wanted to showcase the campus and relive our old days with our family and friends. It was a very memorable experience."

Organizers from the Class of 1981 (Cohort of '76) who postponed their earlier reunion due to COVID years expressed their joy, stating, "We have celebrated three grand reunions now for our batch over the years."

Coordinators from the 1988 batch were quick to point out, "It takes a lot of effort to galvanize the batch, but once they get going, it is special. We got almost half the batch here from all across the globe, and people cherished every bit of it."

The flagship Silver Jubilee Reunion featuring the 1998 batch witnessed the participation of over 160 alumni and more than 100 family members, marking the highest attendance for a single batch.

A member of the 1998 batch organizing team shared, "Most of us are coming back to campus after 25 long years since our graduation."





Alumnus Mr. Rajiv Khemani Commits Support to Yardi School of Artificial Intelligence

Mr. Rajiv Khemani a 1988 batch IIT Delhi alumnus (a B.Tech. CSE), has committed to donating a significant amount to the Yardi School of Artificial Intelligence for the Rajiv Khemani Chair Professorship and 5 Khemani Family Young Faculty Fellowships, along with various other expenses of the school. The donation will be used towards activities to position the Yardi School of Artificial Intelligence as one of the best schools globally. Mr. Khemani is co-founder & CEO of Auradine, a leader in web infrastructure solutions, including blockchain, AI, and security.

AWARDS & EXCELLENCE

Teaching Excellence Awards AY 2022-23



	Semester I, 2022-23	Semester II, 2022-23
1st Year Classes	COL100 Prof. Subodh Vishnu Sharma, Computer Science & Engg. (CSE)	MTL101 Prof. Kamana Porwal, Mathematics
Classes with Large Enrolment (> 60)	ELL735 Prof. Mustafijur Rahman, Electrical Engg.	COL202 Prof. Rohit Vaish, CSE
	MSL814 Prof. Agam Gupta, Management Studies	COL351 Prof. Ashish Chiplunkar, CSE
Classes with Medium Enrolment (15-60)	DTI 705 Prof. Leena Nebhani, Material Science & Enga	MLL202 Prof. Ankur Goswami, Material Science & Engg.
New Faculty	MSI 760 Prof. Riswaiita Parida. Management Studies	COL872 Prof. Venkata Vivek Kumar Koppula, CSE

Prof. Dipti Ranjan Sahoo
 Dept. of Civil Engineering
 Received Shanti Swarup Bhatnagar Prize for Science & Technology 2022
 (Engineering Sciences category)



 Prof. Anurag Singh Rathore Dept. of Chemical Engineering Won Tata Transformation Prize



Prof. Shilpi Sharma
 Dept. of Biochemical Engineering and Biotechnology
 Won Tata Transformation Prize



Prof. Chinmoy Kumar Hazra
 Dept. of Chemistry
 Awarded Merck Young Scientist Award 2023 (Runner-up)



AWARDS & EXCELLENCE



Prof. S K Koul
 Emeritus Professor (CARE)
 Received IETE Lifetime Achievement
 Award 2023

 Prof. Hemant Kumar Kashyap Chemistry Dept.
 APJ Abdul Kalam HPC Award 2023 for Young Researcher in R&D in HPC Applications



 Prof. Swades De Electrical Engg. Dept.
 Elected as INSA Fellow 2023

 Prof. Ashok Kumar Ganguli Chemistry Dept.
 Elected as INSA Fellow 2023 (Presently, Director of IISER Berhampur)





Prof. Sajeev Philip
Centre for Atmospheric Sciences
Elected as INSA Associate Fellow 2023

Prof. Sayan Ranu
 CSE Dept.

Elected as INSA Associate Fellow 2023





Prof. Bhaskar Kanseri
 Physics Dept.
 Elected as INSA Associate Fellow 2023

Prof. Dhanya C. T.
 Civil Engg. Dept.
 Elected as INSA Associate Fellow 2023;
 APJ Abdul Kalam HPC Award 2023





Prof. Sukumar Mishra
 Electrical Engg. Dept.
 Conferred INAE-SERB, DST Abdul
 Kalam Technology Innovation National
 Fellowship

 Prof. Vivek V. Buwa Chemical Engg. Dept.
 Selected for Scientific High Level Visiting Fellowship (SSHN) 2023 by The French Institute in India (IFI), Embassy of France in India





Prof. Sampa Saha Materials Science and Engg. Dept. Received SERB-POWER Fellowship 2023; Recognised as SHE IS: 75 WOMEN IN CHEMISTRY

 Prof. Priyanka Verma Chemistry Dept.
 Recognised as SHE IS: 75 WOMEN IN CHEMISTRY





Prof. Tapan Kumar Gandhi
 Electrical Engg. Dept.
 Conferred INAE-SERB, DST Abdul
 Kalam Technology Innovation
 National Fellowship; Awarded Faculty
 Fellowship at iHUB DivyaSampark

 Prof. Arpan K Kar Management Studies Dept.
 Received Careers360 Faculty Research Award 2023



CONTINUING EDUCATION PROGRAMME

The Continuing Education Programme (CEP), IIT Delhi, a statutory body for conducting certificate programmes and issuing certificates, administered the below activities in the quarter ending December 2023.

- **A.** 29 Programmes (11 online CEP under eVIDYA@IITD initiative; 18 programme under BG-192) were notified during September-December 2023.
- B. 21 Programmes as listed below with 2125 enrolled participants are ongoing and are under academic delivery.

S.No	Programme Title (Department/School/Centre)	Sponsored/ Open Participation
1	Advanced Certification in Data Science and Decision Science (Management Studies) (Batch-II)	· · · · · · · · · · · · · · · · · · ·
2	Advanced Programme in Electric Vehicle (EV) Technology (Chemical) (Batch-IV)	Open Participation (Online)
3	Data Science & Machine Learning (School of AI) (Batch-VI)	Open Participation (Online)
4	Data Science and Machine Learning for IAS Offices (School of AI) (Batch -I)	Sponsored
5	Data Science and Machine Learning for IAS Offices (School of AI) (Batch -II)	Sponsored
6	Design Thinking and Innovation (CRDT) (Batch-V)	Open Participation (Online)
7	Design Thinking for User Experience (Design) (Batch-II)	Open Participation (Online)
8	Digital Marketing (Management Studies) (Batch-VI)	Open Participation (Online)
9	Executive Programme for Advanced Product Management (Management Studies) (Batch-II)	Open Participation (Online)
10	Executive Programme in Advanced Project Management (Management Studies) (Batch-II)	Open Participation (Online)
11	Executive Programme in Brand Management (Management Studies)	Open Participation (Online)
12	Executive Programme Product Innovation and Design Thinking for Business Growth (Design)	Open Participation (Online)
13	Machine Learning and Deep Learning (Electical) (Batch-II)	Open Participation (Online)
14	Management Development (Management Studies)	Sponsored
15	Operations Management and Analytics(Management Studies) (Batch-IV)	Open Participation (Online)
16	Project Management (Management Studies) (Batch- VI)	Open Participation (Online)
17	Project Management (Management Studies) (Batch- VII)	Open Participation (Online)
18	Project Management: Theory and Practice (Civil)	Open Participation (Online)
19	Role Based Training' for Junior Executives of GAIL (India) Ltd. (Chemical) (Batch-I)	Sponsored
20	Sales and Marketing (Management Studies)	Open Participation (Online)
21	Semiconductor Device Technology: Fabrication and Characterization (NRF Physics)	Open Participants (On-Campus)

C. 8 Programmes as listed below benefiting 501 participants were concluded.

S.No	Programme Title (Department/School/Centre)	Sponsored/ Open Participation
1	Advanced Programme in Electric Vehicle (EV) Technology (Chemical) (Batch-III)	Open Participation (Online)
2	Digital Marketing (Management Studies)	Open Participation (Online)
3	Executive Programme in Healthcare Entrepreneurship and Management (Biomedical Engineering)	Open Participation (Online)
4	HPCL DigIT - Digital for Innovation & Transformation (Management Studies)	Sponsored
5	Persuasive Leadership (Management Studies)	Sponsored
6	Renewable Energy Technologies: Recent Advancements and Techno Economic Aspects (Energy Science and Engineering)	Sponsored
7	Strategic Marketing for Govt. Schemes and Policies (Management Studies)	Sponsered by MEA (e-ITEC)
8	Training on Data-structures and Algorithms at Mentor Graphics India Pvt. Ltd. (CSE)	Sponsored

