

# Indian Institute of Technology Delhi



# NEWSLE

Quarterly

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# **TABLE OF CONTENTS**

	Page No
News Updates	1
Research & Innovation	5
Industrial Research and Development	6
International Connect	8
Alumni Relations	9
Corporate Relations	10
Awards & Achievements	11
Continuing Education Programme	12

### Open House 2024: IIT Delhi Showcases its Contribution to the Nation Building

IIT Delhi organised the 17th edition of its annual "Open House" event designed to inspire young minds towards science and technology on November 9, 2024. Dr. Randeep Guleria, former Director, AIIMS New Delhi, was the chief guest on this occasion.



This year's open house saw an overwhelming response, with around 3500-4000 students from 58 schools and colleges across the Delhi-NCR region, along with their teachers and members of the general public, reaching the campus to witness live demonstrations of various research projects that underscore IIT Delhi's role as a hub of innovation in areas such as AI in healthcare, quantum technology, and semiconductor advancements.



Some of the interesting projects were an Al-based project for detecting gallbladder cancer from ultrasound images, a laser-based solid-state lighting system for efficient white light, a smart walking stick enhancing mobility for the elderly, a portable microscopic air quality monitoring and bioaerosol imaging system for real-time environmental monitoring, 5G authentication and key agreement protocol on XBee for secure communications, rapid testing kits for food and environmental applications, Atoms at Play: Molecular Dynamics Simulations to explore atomic interactions, etc.

# QS World University Rankings: Asia 2025 - IIT Delhi Emerges as Best Institute in South Asia

Securing the 44th rank in the QS World University Rankings: Asia 2025, an improvement from last year's 46th rank, IIT Delhi has emerged as the top-ranked institute in South Asia and India. Key factors that helped the Institute touch the top position include the impact of its research, enhanced academic and employer reputation, and a strong international research network.



# IIT Delhi and Centre for Railway Information Systems (CRIS) Partner to Transform Indian Railways Through Cutting-Edge Research

The collaboration between IIT Delhi and CRIS aims to advance railway infrastructure, safety, and operational efficiency across India by leveraging IIT Delhi's expertise in research and technology. Under the MoU, signed on October 30, 2024, IIT Delhi researchers will engage in a series of R&D projects aimed at enhancing security, safety, scheduling, intermodal connectivity, and revenue optimization for Indian Railways. Faculty members from the Departments of Mechanical Engineering, Computer Science, and Management Studies will collaborate on these initiatives, combining interdisciplinary expertise to address key challenges.

# Meta's Chief Al Scientist Yann LeCun Visits IIT Delhi; Interacts with Students I

Dr. Yann LeCun, Meta's Chief Al Scientist and a pioneer in Artificial Intelligence, participated in a panel discussion at IIT Delhi on October 24, 2024, laying out his vision for the future of Al and its intersection with human capabilities. During the panel discussion titled 'From Neural Mimics to Smart Assistants: A Journey into Al's Next Frontiers', Dr. Yann emphasized the need for a rethink of Al architectures, the advantages of open-source, and India's unique potential in the Al landscape. Challenging the current approaches to Al development, Dr. Yann urged for innovative architectures beyond large language models (LLMs).





# IIT Delhi Launches MS (Research) Program in 'Healthcare Technology' for Medical and Allied Clinical Professionals

Launched by the Centre for Biomedical Engineering (CBME) at IIT Delhi, this unique program starting in January 2025 is specifically designed for medical and allied clinical professionals, integrating the principles of medicine with cutting-edge engineering disciplines to foster deep-tech innovations in healthcare. The MS (Research) in Healthcare Technology stands out for its highly project-centric approach, ensuring that students gain hands-on experience with real-world applications. Participants will benefit from clinical and industrial immersion with leading institutes and corporates, providing them with a comprehensive understanding of both the medical and technological landscapes.

# IEA and IIT Delhi Strengthen Collaboration on Clean Energy Technologies and Transitions

The International Energy Agency (IEA) and IIT Delhi signed an MoU on the role of energy technology innovation in reducing emissions and leading clean energy transitions. The MoU, which establishes a framework for cooperation between the IEA and IIT Delhi, was signed at the IEA Headquarters in Paris by IEA Executive Director Dr. Fatih Birol and remotely by IIT Delhi Director Prof. Rangan Banerjee and Deputy Director for Strategy & Planning Prof. Ambuj Sagar. The MoU, signed on October 8, 2024, identifies key areas of collaboration, including policy analysis to foster energy innovation and information exchange on energy technology trends, particularly in emerging and developing economies.





# Workshops Organised for Parents and School Kids to Raise Awareness and Co-Create Possible Solutions to Beat the Heat

Transportation Research and Injury Prevention Centre (TRIP-C), IIT Delhi, and HumanQind conducted three workshops for parents and kids of three schools in Delhi to raise awareness about the impact of extreme heat, particularly on women, and discuss co-creation of possible solutions. 43 parents and 55 children participated in the workshops, which were part of an ongoing project, "Gendered Approaches for Addressing Adaptation Capacity to Hot Weather Conditions," funded by UKAid through the High Volume Transport (HVT) program.



# IIT Delhi and BTPL Sign MoU to Develop Diamond-Based Deep UV Photodetectors for First Time in India

Under this collaborative work, Bhathwari Technologies Pvt. Ltd. (BTPL), Surat, a leading company in the area of synthesis of diamonds using the Chemical Vapour Deposition (CVD) technique, will provide high-quality CVD-grown diamond samples to IIT Delhi. The design and development of the UV photodetectors will be carried out by IIT Delhi researchers from the Department of Physics. The deep UV photodetectors find applications in the areas of UV imaging, secure communication, biological detection, military detection, etc.

# 38th Inter-IIT Aquatics Meet: IIT Delhi Wins Swimming (Men) and Water Polo Championship

The IIT Delhi aquatics team made history by winning both the swimming (men) and water polo trophies at the 38th Inter-IIT Aquatics Meet, held at IIT Indore. The Institute won both at the Inter-IIT Aquatics Meet for the first time. In the water polo final, IIT Delhi won against IIT Bombay after a fiercely contested semifinal match against the reigning champion, IIT Madras. IIT Delhi's star swimmer Rachit Rambhia set a new meet record in the 50m backstroke event and took home two gold medals (one in 50m backstroke and another one in 100m breaststroke). He also won a silver medal in the 50-meter breaststroke. Rachit emerged as the top goal scorer in water polo.



# IIT Delhi Launches Research Communications Award for PhD Scholars

IIT Delhi has launched 'Research Communications Award (RCA)' for its PhD Scholars with an aim to enhance their communication skills. The first batch of winners received a certificate and a cash award of Rs. 25,000/- each for winning various research communication-related competitions such as Research Story Writing and a 3-Minute Thesis competition. PhD scholars were required to write a short story based on their research for the Research Story Writing competition. It needed to be a compelling narrative on the significance of their research and their personal role in it, tailored for a general audience. In 3-Minute Thesis (3MT), PhD scholars were required to describe their research to a general audience within three minutes.

# IIT Delhi and IAF Join Hands for Al-powered Research on Technical Textiles

Headquarters Maintenance (HQ) Command, Indian Air Force Nagpur, and IIT Delhi have signed an MoU to collaborate on advancing innovative technologies for aviation textiles. Under the MoU, IIT Delhi and HQ Maintenance, IAF Nagpur, will cooperate, collaborate, and promote research and development in areas of obsolescence management, self-reliance, upgradations, and digitization through Indigenisation in the field of aviation-grade textiles.





# Amazon's CTO, Dr. Werner Vogels, delivers an engaging talk on "Al for Good" at IIT Delhi

Dr. Werner Vogels delivered a compelling talk on "AI for Good" at IIT Delhi on September 26, 2024. The session showcased Dr. Vogels' vision for using artificial intelligence (AI) to drive positive societal change and address global challenges. His insights into the role of AI in reshaping industries and contributing to social welfare captivated the audience, spurring meaningful discussions on how academia can contribute to AI-driven solutions. Dr. Vogels also visited IIT Delhi's Research and Innovation (R&I) Park where he was introduced to several promising startups.

# India's first-of-its-kind DST-supported CO2-to-Methanol Pilot Plant Project to be Implemented by IIT Delhi and Thermax Ltd. in PPP Mode

The foundation stone of the CO2-to-Methanol pilot plant was laid at Thermax Ltd.'s Research, Technology, and Innovation Center at Pune in September 2024. The pioneering project holds national significance as it aims to demonstrate CO2 capture and utilization (CCU) technologies, playing a crucial role in India's journey towards achieving net-zero carbon emissions. IIT Delhi and Thermax Ltd. will collaborate to develop the CCU technology. A team of faculty members from the Department of Chemical Engineering at IIT Delhi will carry out the project-aligned R&D work, complementing the pilot plant activities and engaging in R&D for future developments.



# **UQ-IITD Research Academy Annual Symposium**

IIT Delhi, in collaboration with the University of Queensland (UQ), hosted the UQ-IITD Annual Symposium on September 23-24, 2024. The event focused on fostering collaboration between the UQ-IITD Research Academy, industry partners, and government and non-government organizations to address global issues with innovative solutions. The symposium showcased the power of partnerships in research and innovation through keynote speeches, panel discussions, and presentations by government representatives, industry leaders, and UQ and IITD faculties and students.





### STEM Stars: Aisha Bowe's Tips for Aspiring STEMinists

Ms. Aisha Bowe, a former NASA rocket scientist, entrepreneur, STEM advocate, and soon-to-be astronaut, interacted with girl students from various Delhi-NCR schools at IIT Delhi in September 2024. The Office of Academic Outreach and New Initiatives at IIT Delhi organized the event "STEM Stars: Aisha Bowe's Tips for Aspiring Steminists" as part of the STEM Mentorship Program for girls, and it received an overwhelming response.

# Workshop to Foster Evidence-Based Policymaking in Healthcare Held

The Department of Health Research (DHR) and Health Technology Assessment in India (HTAIn) resource centre at IIT Delhi organized a 2-day workshop on "Building Evidence-Based Policies: Economic Evaluation and Systematic Review" at Research and Innovation Park, IIT Delhi, in September. Attendees from six IITs across India participated in this hands-on workshop.



### H.H. Sheikh Khaled bin Mohamed Visits Abu Dhabi Campus

His Highness Sheikh Khaled bin Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi, visited the Abu Dhabi campus of IIT Delhi on September 2, 2024, and blessed its first batch of undergraduate students, marking a historic milestone in international engineering education under the prestigious brand of IIT. The inaugural undergraduate batch of students are pursuing B. Tech. degrees in Computer Science and Engineering and Energy Engineering. The sprawling campus inaugurated by H. H. Crown Prince Sheikh Khaled bin Mohamed is a testimony to the untiring efforts of the two countries. The campus, with its beautifully landscaped surroundings, is emblematic of the ever-growing India-UAE partnership.



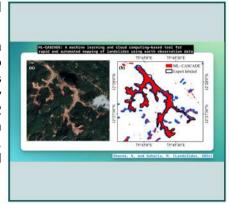




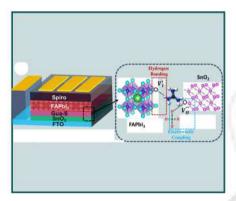
# **RESEARCH & INNOVATION**

# Machine Learning and Cloud Computing Based Tool for Rapid and Automated Mapping of Landslide Extent Released

Researchers from the Civil Engineering Department at IIT Delhi have developed a ground-breaking cloud computing and machine learning-based tool, ML-CASCADE, to map landslide extent using satellite data. This easy-to-use and publicly available tool requires only two inputs, i.e., an approximate date and location of a landslide event, to accurately map a complex cluster of landslides within 5 minutes and a simple landslide within 2 minutes, which is critical for post-disaster damage assessment. PhD Scholar Mr. Nirdesh Kumar Sharma and Prof. Manabendra Saharia, HydroSense Lab, Civil Engineering Dept., have published their study in the prestigious 'Landslides' journal by the International Consortium on Landslides (ICL).



(Read more at: https://shorturl.at/juLpP)



# Potential Solution to Develop Perovskite Solar Cells Under Air Ambient Conditions Without Using Anti-Solvents

The thin-film solar cells, created from an earth-abundant emerging solar material, "Perovskite," have the potential to generate higher solar energy at a lower cost than today's matured industry-standard silicon solar cells. A team of IIT Delhi researchers, led by Prof. Trilok Singh, Department of Energy Science and Engineering (DESE), in their recent publication in SMALL Journal (Wiley), managed to fabricate perovskite solar cells under ambient conditions with higher efficiency and stability. Further, by carefully selecting the molecule, they have proposed an anti-solvent-free device fabrication strategy to manage the reproducibility of devices.

(Read more at: https://shorturl.at/OHJky)

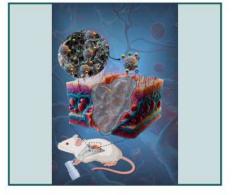
# Researchers Demonstrate a New Polymeric Material Having Potential to Develop Advanced Electronic Devices for Data Storage and Encryption

A study titled "Determination of surface charge density and charge mapping of CYTOP thin film in air using Electrostatic Force Microscopy" revealed that 'Cyclic Transparent Optical Polymer (CYTOP)' can hold the inserted charges for a long duration, which is not generally possible with other materials. This property of CYTOP can be utilized to write the information at nanoscale in the form of charges, which can further be read by Electrostatic Force Microscopy (EFM) only. The study carried out by research scholar Shalini Singh, School of Interdisciplinary Research (SIRe), Prof. Dhiman Mallick, Electrical Engineering, and Prof. Ankur Goswami, Materials Science and Engineering, IIT Delhi, in collaboration with Prof. Stefan A. L. Weber from Max Plank Institute of Polymer Research and University of Stuttgart, Germany, has published in ACS Langmuir.

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(Read more at: https://shorturl.at/tB5sH)



# Sprayable Hydrogel by IIT Delhi Researchers for Improving Wound Healing Exhibits Promising Results in Pre-Clinical Trial

Impaired wound healing can lead to chronic inflammation, increased susceptibility to infection, the development of sepsis, and, in severe cases, death. This poses a substantial global public health challenge, contributing to significant morbidity and healthcare burden. In response to the escalating prevalence of wounds, researchers at IIT Delhi's Centre of Biomedical Engineering (CBME), led by Prof. Sachin Kumar B, initiated a study to explore methods to improve wound healing by promoting the human body's natural healing process. Their research has led to the creation of a new sprayable hydrogel system, which they tested in a rat model during the preclinical trials and got encouraging results.

(Read more at: https://shorturl.at/3HAKh)

# **INDUSTRIAL RESEARCH AND DEVELOPMENT**

# Sponsored Projects & Consultancy Jobs Undertaken Through Industrial Research and Development (IRD) Unit

(July-September 2024)

- 51 Sponsored Research Projects with a total sanctioned value of ₹58.8 crores
- 12 Miscellaneous Projects with a total sanctioned value of ₹ 2.2 crores
- 87 Consultancy Jobs with a total sanctioned value of ₹ 6.39 crores

High Value Sponsored Projects (with sanctioned value Rs. 1.00 cr and above)			
Title	Sponsoring Agency	PI/Department	Sanctioned Funds (Rs. Crores)
Integration of CCU in the coal-to-methanol pilot plant: Bridging the gap to net zero (Joint project of IIT Delhi and M/s Thermax Pvt. Ltd.)	Department of Science and Technology (DST), India	Prof. Divesh Bhatia, Dept. of Chemical Engineering	26.96
Consortia for vaccine candidate development against arboviruses	Indian Council of Medical Research, New Delhi, India	Prof. Manidipa Banerjee, School of Biological Sciences	4.45
Biofidelic Human Tissue Simulants for Ballistic Evaluation	Ministry of Defence, ARMREB, India	Prof. Arnab Chanda, Centre for Biomedical Engineering	2.51
Label-free multiple-beam excitation and plasmon enhanced Raman spectroscopy for rapid and label-free molecular detection of bacteria strains: A point-of-care fast and accurate molecular testing technique (STARS)	MHRD - Scheme for Transformational and Advanced Research in Sciences (STARS) [Implemented by IISc Bangalore] India	Prof. Dalip Singh Mehta, Dept. of Physics	1.20
Bioplastics from Nature for Sustainable Packaging Films	Reliance Industries Limited, India	Prof. Samrat Mukhopadhyay, Dept. of Textile & Fibre Engineering	1.46
Multiplexing scanning LIBS for high throughput Al scrap identification	Indo-German Science & Technology Centre (IGSTC), India	Prof. Deepak Jain, Optics and Photonics Centre	1.90
Physics-informed machine learning for accelerating simulation of physical processes by computational graph upscaling	DST (International Bilateral Cooperation Division), India	Prof. Sayan Ranu, Dept. of Computer Science & Engineering	1.36

High-Value Consultancy Jobs (with sanctioned value Rs. 25 lakhs and above)			
Title	Sponsoring Agency	PI/Department	Sanctioned Funds (Rs. Crores)
Validation of Tunnel Design and Quality of Works Done in Tunnel	North Western Railway, Jaipur, India	Prof. Deepanshu Shirole, Dept. of Civil Engineering	35.00
Site Assessment of Amrit Sarovar Rejuvenation Works for Five Ponds, 1. Pavi Sadakpur Pond at Loni Nagar Palika, 2. Begamabad Budhana Pond at Modinagar, 3. Para Talab at Dataganj, 4. Dhovya Taal at Ujhani, 5. Budhe Babu Talab at Gajraula, Uttar Pradesh, Bharat (India)	Vaidic Srijan LLP, Ghaziabad, India	Prof. Anushree Malik, Centre for Rural Development & Technology (CRDT)	25.50
Structural & Hydraulic Design, and Cost Estimate of RCC Drain work in the Industrial Area Sikandarabad, District-Bulandshahr	Uttar Pradesh State Industrial Development Authority, India	Prof. Bhagu Ram Chahar, Dept. of Civil Engineering	31.50
Technical Advice for Validation of Structural Strength, Seismic Resistance and Serviceability of Proposed Structural Design for Construction of Government Medical College and Hospital	Bihar Medical Services and Infrastructure Corporation Limited, Bihar, India	Prof. Alok Madan, Dept. of Civil Engineering	29.30
Performance Efficacy Measurement of NDT vehicles	Ministry of Road Transport and Highways, Rajasthan, India	Prof. A K Swamy, Dept. of Civil Engineering	46.00

# INDUSTRIAL RESEARCH AND DEVELOPMENT

### **IRD-IITD Faculty Interaction Session**

To enhance a supportive and inclusive environment that facilitates research and development activities at the Institute, Industrial Research & Development (IRD) conducted an interaction with all IIT Delhi faculty members on September 11, 2024. Dean (R&D) Prof. Naresh Bhatnagar led the interactive session, which was attended by Prof. Rangan Banerjee, Director; Prof. Ambuj Sagar, Deputy Director (S&P); Prof. Rajendra Singh (Associate Dean, R&D); IRD team and faculty members. Prof. Naresh Bhatnagar, in his presentation, outlined the IRD Unit's commitment to support the administration and management of R&D projects and consultancy. Additionally, he highlighted the IRD's support in fostering and nurturing numerous new in-house schemes for both faculty members and students. Overall, the session was very fruitful, leading to the clarification of a few aspects related to the funding of sponsored projects and consultancy.





### **IRD Online Stores & Purchase Module**

An advanced online "Stores & Purchase" module has been added to N-IRIS, a new version of IRIS launched by the IRD, to provide complete automation of procurement under the IRD projects and consultancies. Fully operational since 17th September 2024, this module now eases the tasks related to the PFC formation, indent, purchase requisition, Supply order, import order, online audit, payment tracking, etc.

# Multi-Institutional Faculty Interdisciplinary Research Projects (MFIRP) Joint Research Call



### Hebrew University of Jerusalem Israel & IIT Delhi

IIT Delhi and Hebrew University of Jerusalem Israel (HUJI) contributed matching grants to support four joint projects in the translational research areas involving Quantifying past water availability across North-West India, Pilot study of bio-active patent-specific maxillofacial implants, Investigate the link between attention, inhibition and underlying brain mechanism and development of neuromorphic devices for 2 years starting from 12th August 2024.



### **University College London & IIT Delhi**

The sixth call for collaborative joint project proposals between the University College London (UCL), UK, and the IIT Delhi was announced on 6th September 2024, having potential research areas of Energy, Sustainability and Climate, and Quantum Technologies.



### **University of Exeter & IIT Delhi**

The University of Exeter, UK, and IIT Delhi, conducted networking a session and scoping to identify key areas of synergy between the two institutions. Both the institutions contributed matching funds to support joint projects in the broad thematic areas of Sport Science, Rehabilitation and Elite Performance, Climate Science, Environmental Data and Clean Energy, Operations Research, AI, and Automation on 23rd July 2024.

# **MEMORANDUM OF UNDERSTANDING (MoU)**



### **CSIR-Central Road Research Institute (CRRI)**

IIT Delhi and CSIR-Central Road Research Institute (CRRI) signed an MoU on September 2, 2024, to promote cooperative research, facilitate the exchange of ideas, develop new knowledge, and enhance high-quality research acumen. Dr. Manoranjan Parida, Director, CSIR-CRRI, and Prof. Naresh Bhatnagar, Dean, R&D, signed the MoU.



### IIT Delhi, Thermax and DST Sign MoU

IIT Delhi, Thermax and DST signed an MoU on 23rd July 2024 at IIT Delhi for a joint venture to set up pilot test bed for deployment of CCU techs to capture & convert carbon dioxide to methanol in a coal gasification facility in Pune.

### IITD-National Yang Ming Chiao Tung University (NYCU) Joint Doctoral Degree Programme (JDP)

The IITD-NYCU JDP renewed the joint doctoral degree agreement on August 29th, 2024, for further 5 years following the success of the program. Dr. Manu Garg, Dr. Ashutosh Balakrishnan, and Dr. Pallavi Aggarwal successfully completed their doctoral degree under the IITD-NYCU JDP and received their degrees at the 55th Annual Convocation held in August at IIT Delhi. Dr. Akhil K. Ramesh was also awarded a PhD degree under this program. A new IITD-NYCU JDP website (https://nycu.iitd.ac.in/) has been launched.



### IIT Delhi and the University at Albany Meeting at SEMICON India

IIT Delhi and the University at Albany strengthened their collaboration on semiconductor research and workforce development through a joint session at SEMICON India 2024 on September 13. This event brought together a diverse group of academic researchers and industry professionals, including Prof. Rajendra Singh, Associate Dean (R&D), Prof. Pushpapraj Singh, and Prof. Samaresh Das from IIT Delhi's Center for Applied Research in Electronics, as well as Prof. Thenkurussi (Kesh) Kesavadas, Vice President for Research & Economic Development Executive Council from the University at Albany.



# INTERNATIONAL CONNECT

# Foreign Dignitaries @ IIT Delhi

- Prof. D. Sakthi Kumar, President, JSPS Alumni Association of India, Toyo University, Japan, visited on September 4, 2024.
- Dr. Yoshihide Sekimoto, Director and Professor, Center for Spatial Information Science (CSIS), University
  of Tokyo visited on September 10, 2024.



 A delegation led by Mr. Tim van Essen, Special Advisor for Semiconductors and Critical Technologies at the Ministry of Foreign Affairs, Netherlands, visited on September 10, 2024.



 Ms. Meenakshi Arora, Director, Melbourne, India Postgraduate Academy (MIPA), University of Melbourne visited on September 17, 2024.



 Mr. Robert Gordon President and Vice-Chancellor, University of Windsor, UK, visited on September 23, 2024.



 A 7-member delegation led by Mr. Jacques Mercadier, Vice-President of the Fédération Gay-Lussac, France, visited on September 30, 2024.



- A 6-member delegation led by Mr. Rahul Shrivastav, Provost and Executive Vice President, Indiana University, United States, visited September 30, 2024.
- Mr. Ignacio Sánchez, President of UC Chile and Lilian Ferrer, Vice President for International Affairs at UC Chile from South America, visited on August 12, 2024.
- A group of 15 content creators from UAE visited on August 28, 2024.



- A 3-member delegation from UNSW, Australia, visited on August 29, 2024.
- Mr. Kamilovich, Deputy Governor of the Khorezm region, Uzbekistan, visited on July 16, 2024.



- A 6-member delegation from Sweden visited on July 23, 2024.
- Mr. Kinji Saito, Director & Senior Managing Officer of Suzuki Motor Corporation, Japan, visited on July 26, 2024.



# MoUs Signed with: Technical University of Munich (TUM), Germany RIEB, Kobe University, Japan NYCU-JDP Program, Taiwan Zayed University, UAE Sorbonne University, France Mohamed bin Zayed University of Artificial Intelligence (MBZUAI), UAE Khalifa University of Science and Technology, UAE

# **ALUMNI RELATIONS**

# **Alumni Networking Events in Bay Area**

The CSE Department Faculty and Alumni Networking Event, held at the UC Santa Cruz Silicon Valley Campus on July 20, 2024, was a grand success. The event saw over 90 alumni in attendance, creating a vibrant atmosphere filled with engaging discussions, memories, and the exchange of ideas. During the event alumni Mohit Aron (B. Tech. 1995), Pankaj Gupta (B. Tech. 1995), and Gagan Hasteer (B. Tech. 1994) were recognized for their contributions. For a glimpse of the event, visit: https://www.youtube.com/watch? v=iqnsTsGwP6A



The Office of Alumni Relations, IIT Delhi, also organized an engaging interaction session with enthusiastic alumni and Prof. Subodh Sharma, Associate Dean, Academic Outreach & New Initiatives and Prof. Vireshwar Kumar, in Mountain View (Bay Area), California on July 19th.



# First Edition of Dr. P.L. Bhargava Memorial Lecture Held

Dr. P.L. Bhargava Memorial Lecture Series at IIT Delhi has been initiated by alumnus Divakar Bhargava (B. Tech., Mechanical, 1967 Batch). This series aims to bring world-renowned experts to the Institute, providing inspiration and knowledge to our students. The inaugural lecture titled "Math and Magic" was delivered by Manjul Bhargava and Mark Mitton. Manjul Bhargava, a professor at Princeton University, is renowned for his work in number theory. Mark Mitton is a magician, entertainer, producer, and misdirection expert.

# **Chennai City Meet & Greet**

On July 7, 2024, the Chennai City Meet & Greet event successfully gathered a diverse group of IIT Delhi alumni, fostering strong connections and lively discussions on advancements and collaboration opportunities. The evening provided valuable networking opportunities, reinforcing the community's commitment to supporting IIT Delhi's growth and development. The event was jointly organized with IIT Delhi Alumni Association.





# **Alumni City Meet at Jaipur**

IIT Delhi held a memorable alumni meet and greet session in Jaipur on August 31, 2024. The event brought together alumni from various batches, providing a wonderful opportunity to reconnect and engage with one another. Prof. PVM Rao, Dean, Alumni Relations, was present at the event to interact with the attendees.

# **Bangalore City Meet**

On September 28, 2024, the IIT Delhi Alumni community gathered for a memorable Gurugram City Meet, organized by the Office of Alumni Relations and IIT Delhi Alumni Association. The event saw an incredible turnout and the evening was filled with vibrant discussions and shared memories. Attendees enjoyed reconnecting with fellow graduates, strengthening ties, and celebrating their collective achievements.





### **Gurugram City Meet**

The event held on September 28, 2024, saw an incredible turnout, and the evening was filled with vibrant discussions and shared memories. Attendees enjoyed reconnecting with fellow graduates, strengthening ties, and celebrating their collective achievements.

New MoUs (July-September 2024)		
Purpose of Donation	Donor Name	Basic Objective
1973 M.Sc. Batch Scholarship	Prof. Shiva Prasad, M.Sc. 1973, Batch Coordinator	The scholarship will support 03 M.Sc. final year students enrolled in Physics or Chemistry department with 100% of the tuition fee.
ChannelPlay Scholarship	Mr. Sandeep Holani, ChannelPlay Limited	The scholarship, as a one time-grant, will support 08 students enrolled in B.Tech/B.Des program to cover their hostel and mess charges.
Valorem Stack Private Limited Student Mentor-mentee Program	Mr. Rakesh Yadav, IITD Alum - B.Tech 2016	The primary objective of the Student Mentor-Mentee program at IIT Delhi is to foster a supportive and nurturing environment for students, promoting their academic, personal, and professional growth.
Mintoak Innovations Private Limited Student Mentor-Mentee Program	Mr. Kabeer Jain, IITD Alum - B.Tech 2009	The primary objective of the Student Mentor-Mentee program at IIT Delhi is to foster a supportive and nurturing environment for students, promoting their academic, personal, and professional growth

# **CORPORATE RELATIONS**

### IIT Delhi and Systra Group Sign MoU

Systra Group, a leading global engineering and consulting firm specializing in public transport and mobility solutions, has signed an MoU with IIT Delhi to advance various research initiatives that support and promote sustainable development goals. Under this MoU, IIT Delhi Project Investigators and Systra Group will strive to unlock the technological potential of fields such as Intelligent SCADA for Rail Traction Power Optimization, EV: First/Last Mile Connectivity, and Seismic Analysis & Design of Underground Structures.



### IIT Delhi enters into an MoU with Honda Cars India Limited

Honda Cars India Limited (HCIL) has entered into an MoU with IIT Delhi to further advance Honda CI (Cooperative Intelligence), which is an AI that enables mutual understanding between machines and people through cooperative action and communication using environment, scene and intention understanding. Honda and IIT Delhi have set joint research themes such as recognition of the surrounding environment and cultivation of cooperative behaviour, and will conduct joint research and development while utilizing cutting-edge AI technologies.



# Toshiba Software India Pvt. Ltd. Renews Partnership with IIT Delhi to Drive Innovation in Battery Technology

Toshiba Software India Pvt. Ltd. has renewed its partnership with IIT Delhi through the signing of new MoUs, marking a significant step forward in our collective pursuit of sustainable innovation. Toshiba Software India, a leader in providing software solutions to support Toshiba Group's global businesses, is committed to leveraging advanced technology to address real-world challenges. These initiatives will focus on developing advanced cooling techniques for prismatic lithium-ion batteries, with the goal of improving both battery efficiency and thermal management. By enhancing energy storage capabilities, these projects aim to drive breakthroughs in next-generation battery technology. Supported under Toshiba's Corporate Social Responsibility (CSR) vision, they reflect the company's dedication to creating long-term, impactful solutions for global energy needs.

### A Tech colloquium by Hitachi Energy

Gerhard Salge, Global CTO and Venu Nuguri, MD and CEO – India & South Asia, at Hitachi Energy, along with industry and academic experts, led engaging sessions on future grid technologies and energy transition to technical deep dive into grid technologies. A tech colloquium was conducted at IIT Delhi. This event exemplifies Hitachi Energy's commitment to fostering strong collaborations with academics to build, innovate, and collaborate.



# Transforming Campus Healthcare: MeduLance and IIT Delhi's Visionary CSR Partnership

MeduLance, a leader in emergency medical services, has partnered with IIT Delhi to support vital improvements in campus healthcare. Through their Corporate Social Responsibility (CSR) investment, MeduLance is contributing to the procurement of a new ambulance with additional funding from other sources complementing their support. This collaboration reflects a commitment to enhancing emergency response capabilities and making a meaningful impact on the health and safety of the IIT Delhi community.



### Scholarship by NK Securities Research Limited

This contribution by NK Securities Research Private Limited through its Corporate Social Responsibility (CSR) funding is dedicated to providing scholarships to deserving students at IIT Delhi. This marks the second year of their support, reinforcing their mission to empower students from economically disadvantaged backgrounds and ensure that financial constraints do not hinder their academic pursuits. Founded by IIT Delhi alumni, Mr. Sudhanshu Narang and Mr. Faraz Khan, NK Securities Research is a leading high-frequency algorithmic trading firm. Their continued support exemplifies their dedication to giving back to the institution that has shaped their careers.



# **AWARDS & ACHIEVEMENTS**



Prof. G.V. Prakash Physics, IIT Delhi Elected as a NASI Fellow 2024 Elected as a Fellow of Royal Society of Chemistry



Prof. Vasant Matsagar Civil Engineering, IIT Delhi Elected as a NASI Fellow 2024



Prof. Shilpi Sharma Biochemical Engineering and Biotechnology, IIT Delhi Elected as a NASI Fellow 2024



Prof. Tapan Kumar Gandhi Electrical Engineering, IIT Delhi Elected as a NASI Fellow 2024



Prof. Dipti Ranjan Sahoo Civil Engineering, IIT Delhi Elected as an INAE Fellow 2024



Prof. Mausam Computer Science and Engineering, IIT Delhi Elected as an INAE Fellow 2024



Prof. Abhijit R Abhyankar Electrical Engineering, IIT Delhi Elected as an INAE Fellow 2024



Prof. Janardhanan Sivaramakrishnan Electrical Engineering, IIT Delhi Elected as an INAE Fellow 2024.



Prof. Konijeti Sreenadh Mathematics, IIT Delhi Elected as an INSA Fellow



**Prof. Sovik Das** 



Materials Science and Engineering, IIT Delhi Selected as an Associate of Indian Academy of Sciences, Bangalore



Chemistry, IIT Delhi

Joined Editorial Board of Journal of Analytical Science and Technology (JAST) as an Associate Editor; Received Chirantan Rasayan Sanstha® (CRS) Bronze Medal



Centre for Atmospheric Sciences, IIT Delhi Devendra Lal Memorial Award by American Geophysical Union



National Geospatial Emerging Faculty Award 2024 by FOSSEE (IIT Bombay)



IAAM Young Scientist Award

Prof. Santosh Kapurla

Applied Mechanics, IIT Delhi Inducted as an Editor of Acta Mechanica Published by Springer

### Prof. Yama Dixit

Centre for Atmospheric Sciences, IIT Delhi Inducted into Editorial Board of Global and Planetary Change

Prof. Poola Ghosh

CRDT, IIT Delhi

Joined Editorial Board of Scientific Reports Published by Nature

Dr. Nabi Hasan

Librarian, IIT Delhi

SLA Asia Librarian Excellence Award 2024



















# **CONTINUING EDUCATION PROGRAMME**

Continuing Education Programme (CEP), IIT Delhi, a statutory body for conducting certificate programmes and issuing certificates, has administered the below activities in the quarter ending September 2024.

▶13 Programmes (08 online CEP under eVIDYA@IITD initiative; 05 programme under BG-192) were notified.

>10 programs with 760 enrolled participants, as listed below, are under academic delivery.

S.No	Programme Title (Department/ Centre/ School)	Sponsored/ Open Participation
1	Advance Programme in Electric Vehicle (EV) Technology (Batch-6) (Chemical)	Open Participation (Online)
2	Advanced Certification in Data Science and Decision Science (Batch-3) (DMS)	Open Participation (Online)
3	Certification in Quantum Computing and Machine Learning (Batch-5) (BSTTM)	Open Participation (Online)
4	Chief Technology Officer Programme (DMS)	Open Participation (Online)
5	Executive Management Programme in Advanced Strategic Management (Batch-2) (DMS)	Open Participation (Online)
6	Executive Programme for Tech Product Management (Batch-2) (DMS)	Open Participation (Online)
7	Executive Programme in Healthcare Entrepreneurship and Management (Batch-2) (Bio-Medical Engineering)	Open Participation (Online)
8	Joint Diploma Program in Visionary Leaders for Manufacturing (VLFM) B-7 (Mechanical)	Sponsored
9	Judgment and Decision-making A peope focus (Humanities)	Sponsored
10	Quantum Computing and Machine Learning (Batch-4) (Electrical)	Open Participation (Online)

C. 09 Programmes benefiting 414 participants, as listed below, were concluded.

S.No	Programme Title (Department/ Centre/ School)	Sponsored/ Open Participation
1	Advanced Certificate Program in Automotive Operation and Future Technologies (CART)	Sponsored
2	Artificial Intelligence and Machine Learning: Foundations (ScAI)	Sponsored
3	Computer Vision (CSE)	Sponsored
4	Executive Management Programme in Advanced Strategic Management (Batch 2) (Management Studies)	Open Participation (Online)
5	Executive Programme in Healthcare Entrepreneurship and Management (Batch 2)	Open Participation (Online)
6	Fundamentals and Advances in Technical Textiles (Textile)	Sponsored
7	Polymer Science and Technology Course for IOCL (Material Science)	Sponsored
8	Quantum Computing and Machine Learning (Batch 4) (Electrical Engineering)	Open Participants (Online)
9	Workshop on Enabling Renewable Energy Integration in Modern Power Systems with advanced technologies (Electrical Engineering)	Open Participation (Online)

# **#IITDelhi on Social Media**



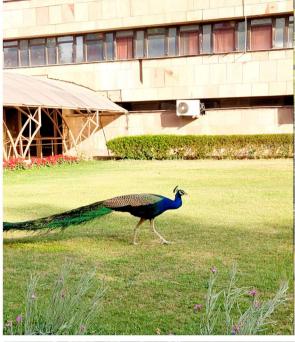
















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