



## INSTITUTE HIGHLIGHTS

### Mehta Family Schools at IIT Indore

IIT Indore, with generous support from the Mehta Family Foundation, has established two new schools—the Mehta Family School of Sustainability and the Mehta Family School of Bioscience and Biomedical Engineering—strengthening its commitment to interdisciplinary research and societal innovation. An MoU formalizing the collaboration was signed on July 22, 2025.

The School of Sustainability, launched with the School of Humanities and Social Sciences, marks IIT Indore's entry into an exclusive consortium of IITs supported by the Foundation. Its inauguration on July 19 featured the Sustainability Research Forum, including a panel on global challenges such as energy, water, and climate, and PhD flash talks and posters fostering interdisciplinary dialogue.

The School of BSBE was inaugurated during the Foundation delegates' visit on July 19–20. An in-house symposium on July 20 featured student presentations and keynote lectures by Prof. Shankar Subramaniam (UC San Diego) and Prof. Ananth Grama (Purdue University), setting the academic vision for advancing biomedical research and addressing critical healthcare challenges.



### Independence Day



IIT Indore observed the 79th Independence Day with enthusiasm and patriotic spirit. The day began with the “Har Ghar Tirangaa” Cycle Rally, promoting unity across the campus, followed by the flag hoisting ceremony and the National Anthem. In his address, Director Prof. Suhas S. Joshi shared the institute's vision and highlighted recent achievements.

Cultural performances by various student clubs enriched the celebrations, featuring a skit, music and dance presentations, patriotic programs by students of PM Shri KV IIT Indore, and a performance coordinated by the Community Cell with visually impaired participants, reflecting the institute's commitment to inclusivity and social engagement. The event concluded with a Tech Expo, where students showcased innovative projects and creative ideas.



# Thirteenth Convocation Ceremony



IIT Indore celebrated its 13th Convocation Ceremony on July 12, 2025, with pride and distinction. The event commenced with addresses by the Chairperson of the Senate and the Chairperson of the Board of Governors, who urged graduates to carry forward the institute's legacy of excellence and service to society. Dr. Ajai Chowdhry, Padma Bhushan awardee and pioneer of the Indian electronics industry and HCL, delivered the Convocation Address as Chief Guest. In an inspiring message, he called upon graduates to “be job creators rather than job seekers”, and to lead with creativity, innovation, and integrity.



“India needs a push backed by design capabilities, infrastructure, and supportive policies ... We must move from being technology consumers to creators if we truly want to be Atmanirbhar.”

— Dr. Ajai Chowdhry  
Co-Founder, HCL

In his address, Prof. Suhas S. Joshi, Director IIT Indore, emphasized the institute's growing global recognition and its mission to foster research-driven, interdisciplinary collaboration. The ceremony concluded with a celebration of academic excellence and a vision for graduates to shape the future with leadership, innovation, and social responsibility.

A total of 813 degrees were conferred, including 340 B.Tech. degrees—the largest undergraduate cohort to date from IITI. A notable highlight was the award of 75 joint M.S. degrees in Data Science and Management under the IIT Indore–IIM Indore collaboration. Prof. Himanshu Rai, Director IIM Indore, addressed the gathering, underscoring the importance of cross-disciplinary approaches in education and describing the joint program as a powerful example of how institutions can come together to prepare students for a rapidly evolving, data-driven world.

The ceremony honored academic excellence through the conferral of medals and awards. Mr. Kadam Madhav Mukund from the Department of Computer Science & Engineering received The President of India Gold Medal for best academic performance. Institute Silver Medals were presented to the top academic performers across undergraduate and postgraduate programs, along with the best all-round performance gold medal, memorial awards, and the Best B.Tech. Project Award.





# ICCCNT 2025

The sixteenth IEEE International Conference on Computing, Communication, and Networking Technology (ICCCNT 2025) was inaugurated at IIT Indore by Director Prof. Suhas S. Joshi on July 6. With over 10,000 research papers submitted from 99 countries, the conference has recorded the largest participation in its history. For the first time, the event also featured an Industry Exhibition, fostering stronger collaboration between academia and industry. ICCCNT 2025 was chaired by Prof. Surya Prakash (IIT Indore) and co-chaired by Prof. Prakash Duisamy (University of Wisconsin, USA). The conference brought together global experts from leading institutions, including NASA, IIT Delhi, and IIT Kanpur. Key themes of discussion included Artificial Intelligence, Internet of Things, Cybersecurity, 6G, Wireless Systems, and Smart Computing, with a focus on advancing sustainable innovation and shaping the blueprint of future technologies.



## Fifth CSR–CIC Meet

IIT Indore organized its fifth CSR–CIC Meet on August 8, 2025, in New Delhi, bringing together leaders from industry, academia, and corporate foundations to deliberate on higher technical education and avenues for CSR-driven collaborations. The program opened with a welcome address and institute presentation by Prof. Suhas S. Joshi, Director, IIT Indore, in the presence of Chief Guest Dr. Suman Minda, Chairperson, Suman Nirmal Minda Foundation, and Guest of Honor Mr. Shalabh Chaturvedi, MD, CASE Construction Equipment. Highlights included a session on Corporate Connect and CSR initiatives by the Dean ACR, followed by addresses from industry leaders and two panel discussions on challenges in higher technical education and opportunities for R&D and CSR partnerships. The event concluded with a vote of thanks by Dr. P. P. Chattaraj, Sr. Vice President, ACR, and a networking dinner, reinforcing IIT Indore's role in strengthening CSR and industry–academia engagement.



## IEEE CIS Summer School

The IEEE Computational Intelligence Society (CIS), MP Section, successfully organized its Summer School on Emerging Trends in Computational Intelligence, Deep Learning, and Large Language Models from July 23–25, 2025, at IIT Indore. Coordinated by Prof. M. Tanveer, Chair of IEEE MP Section and Professor of Mathematics at IIT Indore, the three-day program featured keynote and invited talks by eminent speakers such as Prof. Kalyanmoy Deb (Michigan State University), Prof. Pushpak Bhattacharyya (IIT Bombay), Prof. Vineeth N. Balasubramanian (IIT Hyderabad), and many others, alongside industrial sessions from TCS Research and Sahaj Software. Highlights included mentorship sessions, a panel discussion, and the Young Researcher Forum. The event provided an engaging platform for knowledge exchange, collaboration, and training in frontier technologies.





# MoU signed between IITI and SFRI

IIT Indore and the State Forest Research Institute (SFRI), Jabalpur, signed an MoU on August 18, 2025, to leverage AI and cutting-edge technologies to mitigate human-wildlife conflict, especially near railway expansions and other infrastructure projects. The collaboration will strengthen forest management, advance forestry and wildlife research, and integrate innovative solutions with field-level implementation for tangible conservation impact.



## STUDENT HIGHLIGHTS

### E Summit

E-Summit 2025, the flagship event of the Entrepreneurship Cell, was held on August 30–31, bringing together startups, investors, industry leaders, and students for two days of innovation. The Startup Expo showcased pioneering ventures, while competitions such as Boardroom, Case Chronicles, Product Breakdown, Design Odyssey, and DevCraft tested participants in debates, design, and business problem-solving. PitchX enabled young entrepreneurs to present ideas to investors from Anicut, Next Unicorn, and angel investors Faheem Rangwala and Rohit Khandelwal.

Day 1 concluded with Innovators Unplugged, a panel discussion with Yash Tarwadi (Solnce Energy), Rahul Shah (Yaan Man), Paurav Rastogi (Speed Kitchen), and Dhananjay Yadav (NeoSapien), moderated by Gautam Yadav (Vena Solutions), who shared insights on scaling startups and fostering innovation. Day 2 featured the Visionary Vault, with speakers Ishan Sharma (MarkitUp), Shri Vijay Srirangan (Canara Bank), Ashish Singhal (CoinSwitch and Lemonn), and Jay Saraswat (Webmobril Technologies) reflecting on their entrepreneurial journeys. The summit concluded as a resounding success that celebrated ideas, innovation, and entrepreneurial spirit at IIT Indore.



### Student Achievements



- Ranjan Kumar, Kavita Meena, Vaibhav Tyagi, Lekhraj Saini, Parvathy Thankachy P, Anam Sabir, and Abhishek Darwai — under the guidance of their faculty advisor, Dr. Saurabh Das, the team won First Prize in the IEEE GRSS 5th Student Grand Challenge 2025 for the project titled "Unmanned System for Profiling Air Pollutants and Atmospheric Parameters: A Complete Framework for Onboard Processing and Real-Time Data Analysis"
- Vaibhav Tyagi — awarded the IEEE GRSS International Travel Grant 2025 to attend IGARSS-2025 in Brisbane, Australia, and awarded the International Travel Grant 2025 to attend EGU-2025 in Vienna, Austria.
- Lekhraj Saini — awarded the IEEE GRSS International Travel Grant 2025 to attend IGARSS-2025 in Brisbane, Australia, and awarded the International Travel Grant 2025 to attend BACO-2025 in Busan, Korea. Also nominated as a new member of the Global IEEE GRSS Chapter Committee.
- Aryama Singh, Nandini Gupta, and Hardik Hazari — won the Lok Capital Case Competition 2025 by IIM Lucknow, designing innovative strategies for sustainable and inclusive green finance in India
- Vishal Chourasia — under the guidance of Prof. Anirban Sengupta, presented his research paper on hardware watermarking frameworks at VDAT 2025 (29th International Symposium on VLSI Design and Test), Chandigarh.
- Mushir Akhtar and Abdul Quadir — presented four research papers (two oral, two poster) at IJCNN 2025, Rome, showcasing advances in randomized neural networks and kernel machines, under the guidance of Prof. M. Tanveer.
- Ayush Garg — awarded the OPUS research grant by the National Science Center, Poland, to pursue a month-long collaborative research stay at Nicolaus Copernicus University.
- .Ummed Singh — received the ANRF Travel Grant to attend the 2025 ICHSF, Germany.
- Anuj Pal, Anurag Sinha, and Ashutosh Diyawar — selected for Crashfree India's Project Rakshak, powered by CARS24, a three-month internship addressing road safety and infrastructure issues via field research, stakeholder engagement, and AI-enabled solutions.



# Genesis 2025

IIT Indore welcomed its new batch of B.Tech. and B.Des. students with Genesis 2025, a structured life skill development program held from July 26 to August 3, 2025. Designed as an orientation module, Genesis familiarized first-year students with the institute's culture, expectations, and opportunities while also focusing on their holistic development. Over the course of 9 days, students participated in physical training, wellness workshops, technical and creative sessions, expert lectures, and cultural activities, gaining a comprehensive introduction to life at IIT Indore.

## Visit to MCTE Mhow

A major highlight of Genesis was the visit to the Military College of Telecommunication Engineering (MCTE), Mhow. The exposure to the disciplined environment of the armed forces, combined with demonstrations of advanced communication systems, provided students with a unique perspective on how technology integrates with national defense.



## SnT & Design Activity

The Science and Technology Council activity engaged students in the design and launch of water rockets, combining scientific principles with teamwork in a practical and enjoyable format. Complementing this was the Design Thinking for Innovation workshop, where students worked on bridge-building exercises while also being introduced to the instruments and facilities of the Makerspace Laboratory.



## Lake visit and Plantation

Students, alongside Director Prof. Suhas S. Joshi, took part in a lake visit and a plantation drive, connecting them with the campus ecosystem and instilling a sense of environmental responsibility. On other days, sessions in physical training and yoga promoted health, discipline, and mindfulness.



## Gymkhana Orientation

The Gymkhana and Club Orientation introduced freshers to the vibrant extracurricular culture of IIT Indore. Through presentations, interactions, and cultural showcases, students were made aware of the wide range of technical, cultural, and recreational clubs available on campus.

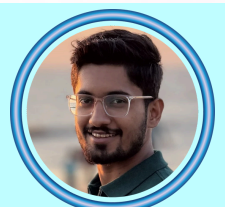


“It gives me immense pleasure to witness the successful conduct of Genesis 2025. This program not only welcomed our new students but also laid the foundation for their holistic growth at IIT Indore. I extend my appreciation to our organizing teams, Students’ Gymkhana, and to the Newsletter Coordinator for capturing these efforts so well. I encourage our students to carry forward the spirit of curiosity, discipline, and responsibility in every endeavor.”

– Prof. Amod C. Umarikar  
Dean, Student Affairs

“I warmly welcome the new batch to IIT Indore. Genesis, organized through the dedicated efforts of our Gymkhana officeholders, reflects the institute’s culture of growth and community. I am glad POD Pulse captures such moments, connecting our campus life with alumni and the wider IIT Indore family.”

– Mr. Naveen Sharma  
President, Students’ Gymkhana



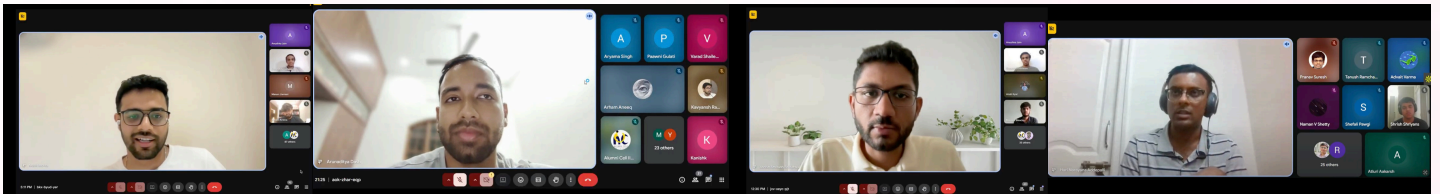


# ALUMNI HIGHLIGHTS

## SAATHI Mentorship Sessions

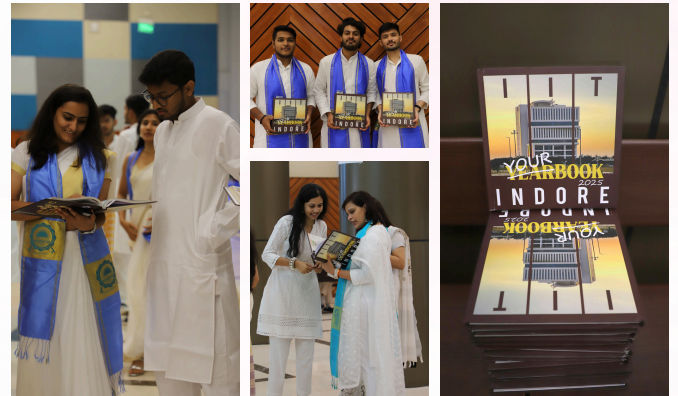
SAATHI is the official alumni mentorship program, facilitating structured interaction between alumni and current students, focusing on career guidance, interview preparation, and domain-specific mentoring.

- July 6 – Mr. Mohit Mohta (CSE'19, D.E. Shaw) spoke on technical CVs, while Mr. Arunaditya Dash (EE'25, Nation with NAMO) covered non-technical CVs with recruiter insights and LinkedIn tips.
- July 13 – Mr. Ashish Amitabh Bharatwal (EE'17, BCG) led “Switch. Strategize. Succeed.”, sharing advice on career transitions and consulting growth.
- August 18 – In a collaboration with EESA, Dr. Addepalli Hari Narayana (EE'18, AMD) discussed research careers in electrical engineering, highlighting industry-academia linkages.



## Yearbook 2025

During the 13th Convocation held on July 12, the Alumni Cell distributed yearbooks to graduating students. Designed as a collective record of experiences, stories, and milestones, the yearbook served as a lasting reminder of each graduate's unique journey at IIT Indore. The Cell also released a special feature online post recognizing the medalists of the graduating batch of 2025.



## Alumni Meet-Ups

July and August also witnessed vibrant alumni reunions in Chennai (20 July) and Kolkata (30 August). These gatherings brought together graduates from different batches, filled with conversations, nostalgia, and shared memories. The meet-ups reaffirmed that time and distance only strengthen the IIT Indore bond, making each reunion more meaningful.



## Alumni talk & Founders' Connect

On August 24, the Alumni Cell, in association with the event Neural Nexus, hosted a talk by Ms. Parul Gupta on careers in Artificial Intelligence. She shared her professional journey, discussed emerging opportunities in AI, and offered practical advice to students aspiring to build careers in this rapidly evolving domain. On August 30, the Alumni Cell organized Founders' Connect, a panel discussion featuring three alumni entrepreneurs. The session highlighted their journeys of building ventures, the challenges of entrepreneurship, and the opportunities that lie ahead for aspiring founders, inspiring students to engage more actively with the start-up ecosystem.



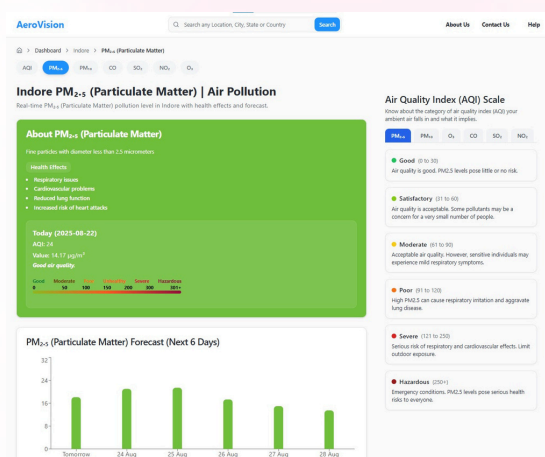


## Eco-Friendly Drug Synthesis

Researchers at IIT Indore, led by Dr. Umesh A. Kshirsagar, have pioneered a green and eco-friendly method to synthesise nitrogen-based medicinal compounds called heterocycles, which are crucial in drugs used to treat allergies, cancer, depression, spinal muscular atrophy, inflammation, and endothelial cell dysfunction. Traditionally produced through harsh and polluting processes, these compounds can now be created using visible blue light under mild, energy-saving conditions, delivering high-quality yields with far less environmental impact. This innovation makes drug development more affordable, efficient, and sustainable, marking a transformative step toward healthcare that advances human well-being while safeguarding the environment.

## AI-Powered 'AeroVision' for 6-Day Air Quality Forecast

Researchers at IIT Indore, led by Prof. Manish Kumar Goyal with Kuldeep Singh Rautela from the Department of Civil Engineering, have developed AeroVision, an AI-powered system that forecasts air quality for the next six days across Indian cities and towns. Using 12 years of hourly air quality, weather, and atmospheric data, it predicts six key pollutants: PM<sub>2.5</sub>, PM<sub>10</sub>, CO, SO<sub>2</sub>, NO<sub>2</sub>, and O<sub>3</sub>, with accuracy above 95%. Powered by CNN, LSTM, and GRU models, the system converts complex data into a simple, colour-coded AQI with health advisories and activity recommendations. Providing reliable, location-specific forecasts, AeroVision empowers citizens, policymakers, and communities to plan proactively, mitigating health risks and supporting sustainable living.

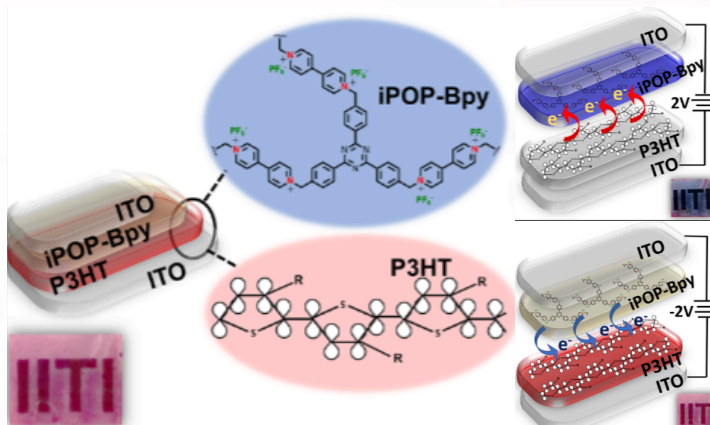


## Cement-Free High-Strength Concrete

Researchers at IIT Indore, led by Dr. Abhishek Rajput from the Department of Civil Engineering, have developed a cement-free, eco-friendly Geopolymer High-Strength Concrete that achieves over 80 MPa compressive strength in just three days without requiring cement or water curing. Made from industrial waste materials such as fly ash and ground granulated blast furnace slag (GGBS), this innovation can reduce CO<sub>2</sub> emissions by up to 80%, conserve water, and lower construction costs by 20% when sourced locally. Its rapid strength development makes it ideal for military bunkers, disaster relief shelters, railway sleepers, bridges, and highway repairs. The breakthrough aligns with India's vision for green infrastructure and carbon neutrality, marking a transformative step toward stronger, faster, and more sustainable construction practices.

## Smart Glass for Energy-Efficient Buildings

Researchers at IIT Indore, led by Prof. Suman Mukhopadhyay and Prof. Rajesh Kumar, with Dr. Sayantan Sarkar (IIT Mandi), have developed a smart glass that functions as an "electronic curtain," adjusting light and heat with a small electric current. Using a viologen-based porous organic polymer (POP), the glass shifts colour and transparency rapidly, is low-cost, durable, and scalable through spray- and dip-coating. Published in ACS Applied Materials & Interfaces, it holds promise for energy-efficient, eco-friendly buildings, reducing reliance on air conditioning and artificial lighting for societal benefit.





# FACULTY HIGHLIGHTS



Prof. Neelima Satyam was honoured with the Excellent Scientific Editor Award 2024 for her contributions to the Journal of Rock Mechanics and Geotechnical Engineering (JRMGE). In 2025, she has been elected as a Member of the LARAM Scientific Committee (2025–2027), nominated to the ANRF-DST Inclusivity Research Grant Evaluation Committee, and appointed to the AICTE Expert Visiting Committee/Scrutiny Committee. She also instituted the Devarakonda Satyanarayana Award at IIT Delhi, recognizing top M.Tech students in Geotechnical Engineering and Rock Engineering & Underground Structures stream.



Dr. Dishari Chattaraj published “Food Literacy, Curriculum, and The Global South: Examples from South Asia” with Palgrave Macmillan, based on research funded by IITI’s YFRSG. The monograph explores food education among school children and curriculum across South Asia, analyzing textbooks from multiple disciplines and countries. It highlights how food education intersects with culture, policy, and identity in the region.

## Patents

Prof. Pavan Kumar Kankar and Dr. Ankur Miglani

Title: “A Method and System for Detection and Determination of Failure of a Fluid-Power System”

Prof. Ram Bilas Pachori

Title: “Apparatus, Systems and Methods for Quality-Aware Energy-Efficient Respiration Rate Estimation from Photoplethysmography (PPG) Signal”

Prof. I. A. Palani

Title: “A Gesture-controlled SMA-actuated Robotic Gripper System and Method Thereof”

Prof. Ram Bilas Pachori, Dr. Gourinath B., and Dr. Debasis Nayak

Title: “A Remote Pregnancy Detection and Monitoring Device for Mammal with Multiple Foetuses”

Dr. Tridib Kumar Sarma

Title: “Conductive Polymer Embedded Biomolecular Hydrogels (CPBHs) and Method Thereof”

## Lectures, Seminars, and Workshops

- 2nd July 2025 – Dr. Raghu Rangaswamy (CEO, Molecular Solutions) delivered a lecture titled Digital Drug Discovery: How AI/ML and In Silico Simulations are Redefining Drug Discovery.
- 4th July 2025 – A delegation from the Army War College, MHOW, presented an interaction on Future Wars: Non-Contact Kinetic.
- 8th July 2025 – Prof. Kamesh Namuduri (University of North Texas, USA) delivered a keynote session titled The Evolution of Advanced Air Mobility – A New Dimension of Mobility.
- 18th July 2025 – Dr. Manish Kumar (IIT Madras) presented a talk titled Near-Linear Time Leader Election in Multiagent Networks.
- 20th July 2025 – Prof. Dr. Ananth Grama (Purdue University) delivered a seminar titled AI Techniques for Cell Classification, State, and Evolution in Cancers.
- 26th July 2025 – Prof. Rajeev Sangal delivered a lecture titled Setting Goals With Focus and Determination, and Dr. Janak Palta McGilligan (Padmashree Awardee) spoke on Staying Aligned with the Purpose of Life.
- 27th July 2025 – Commander V. K. Jaitly delivered a motivational keynote titled Shaping Your Future in the Next Four Years.
- 4th August 2025 – Dr. Aditi Sethia (IISc Bangalore) delivered a talk titled Fair Division: Best of Both Worlds Guarantees for Equitable Allocations.
- 7th August 2025 – Dr. Akshat Dave (MIT Media Lab; incoming faculty, Stony Brook University, USA) delivered a talk titled Superhuman Vision by Co-designing Cameras, Graphics, and AI.
- 11th August 2025 – Prof. Shyam S. Pandey (Kyushu Institute of Technology, Japan) delivered a lecture titled Facile & Environment-Friendly Approaches Towards Utilization of Oriented Thin Films for Organic Electronic Devices.
- 11th August 2025 – Prof. Hirofumi Tanaka (Kyushu Institute of Technology, Japan) delivered a lecture titled Material Intelligence: Material Physical Reservoir Computing Devices Made by Random Network of Nanomaterials for Robot Application.
- 11th August 2025 – Dr. Moulika Desu (Kyushu Institute of Technology, Japan) delivered a lecture titled Engineering Molecular Randomness in RR-P3HT-Oriented Thin Films For Physical Reservoir Performance.
- 12th August 2025 – Prof. Satyaprakash Sahoo (Institute of Physics, Bhubaneswar) delivered an online lecture titled Emerging 2D Quantum Materials for Brain-Inspired Neuromorphic Computing Applications
- 21st August 2025 – Dr. Raphael Gaudin (CNRS - University of Montpellier, France) delivered a guest seminar titled In the Intimacy of Virus-Brain Interactions: From Molecular Mechanistic to Functional Impact.
- 22nd August 2025 – Prof. Dr. Saurabh Agarwal (St. John’s University, New York, USA) delivered a guest seminar titled Transforming Pediatric Cancer Therapy: AI-Based Discovery and Epigenetic Interventions in Neuroblastoma.

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