



# IISER KOLKATA

## NEWSLETTER

Indian Institute of Science Education and Research Kolkata (IISERK) is an Institute of National Importance established as an autonomous institute for higher education by the then Ministry of Human Resource Development (now Ministry of Education), Government of India, to promote high-quality education and research in basic sciences.

### IISER Kolkata's Unstoppable Reign at IICM 2025



We are delighted to share the wonderful news that IISER Kolkata has emerged as the Winner of IICM 2025 held at IISER Behrampur from 19th-21st Dec, 2025, marking an extraordinary achievement of winning the IICM championship for four consecutive time in a row. This remarkable feat reflects the consistent excellence, dedication, teamwork, and spirit of our students, mentors, and organizers. Securing this title five times is a testament to IISER Kolkata's strong and rich cultural diversity.

### Performance Highlights: IISM 2025 @ NISER Bhubaneswar



Participants - Institute Sports Meet (IISM) 2025 @ NISER Bhubaneswar

**In Athletics:** 10 KM Race in Mens - Gold, Long Jump Women section - Gold, Javelin Women section - Gold, 5 KM Men section - Silver, Shotput Men - Bronze, Triple Jump Women - Bronze, Triple Jump Men - Bronze, Javelin Women - Bronze, Midlay Relay Women - Bronze.

**Team Events:** Basketball Women - Gold, Kho-Kho Men - Gold, Football Women - Gold, Chess - Silver, Carrom - Bronze, Badminton Men - Bronze, Badminton Mixed Double - Bronze.



## Public Lecture by Prof. M. Ram Murty and Prof. V. Kumar Murty

IISER Kolkata hosted a public lecture by Prof. M. Ram Murty and Prof. V. Kumar Murty on “The Art of Research” and “Reflections on the Computer and Human Brain” on 12th December 2025 at 10:30 AM at the R. N. Tagore Auditorium, IISER Kolkata.

Students from nearby schools and colleges were invited to the programme to inspire young minds and encourage scientific curiosity. The lectures offered valuable insights into research thinking, interdisciplinary learning, and the evolving relationship between technology and human intelligence, making the session enriching and thought-provoking for all attendees.



## Welcome, Green Chemistry! IISER Kolkata on the Cover

We are delighted to share that IISER Kolkata has been featured on the cover for its cutting-edge contributions to sustainable chemistry—where innovation meets responsibility toward the planet.

At the heart of this feature are two complementary research thrusts from our faculty:

Prof. Soumyajit Roy and his team are advancing CO<sub>2</sub> valorization—transforming carbon dioxide from a climate liability into a resource. From converting CO<sub>2</sub> into useful chemicals such as biofuels and sustainable acids, to envisioning cleaner energy carriers and circular carbon pathways, this work exemplifies chemistry that protects the environment while powering the future.

Prof. Swadhin Mandal and collaborators report new green chemistry reactions, including metal-free, solvent-free, and one-pot transformations. By re-engineering classic reactions to eliminate toxic reagents and precious metals, this research opens scalable, industry-relevant routes to essential molecules—proving that efficiency and sustainability can go hand in hand.

As highlighted in the cover story, these advances reflect a shared philosophy: chemistry must protect the environment—and thereby the planet. From innovative CO<sub>2</sub> capture and conversion to cleaner reaction design, IISER Kolkata continues to lead with science that matters.



(Left) Prof. Soumyajit Roy and his team, (Right) Prof. Swadhin Mandal



Congratulations to our faculty, students, and collaborators for this inspiring recognition!

The journey toward a greener chemical future is well underway at IISER Kolkata.



## Visit of PM Shri Kendriya Vidyalaya Ishapore, North 24 Parganas



Ninety students accompanied by six faculty members visited IISER Kolkata on 12th December, 2025 as part of their educational tour. During the visit, the students explored various departments of IISER Kolkata and interacted with research scholars and faculty members, gaining firsthand exposure to advanced research facilities and ongoing scientific work. The interactions provided valuable insights into contemporary research areas, academic life, and career opportunities in science and research. The visit helped inspire the students, broaden their scientific outlook, and motivated them to pursue higher studies and research in basic sciences.

## Outreach program in Department of Biological Sciences

On 2nd December 2025, 12 students and 4 faculty members from Science College Kokrajhar, Assam, visited IISER Kolkata's Department of Biological Sciences as part of their Educational Tour. The visit provided them with an opportunity to explore advanced research in Biological Sciences. A special interactive session with Prof. Supratim Datta, Head of the Department allowed students to ask questions and gain insights into higher education and research opportunities at IISER Kolkata, he also gave a valuable, motivational, and informational speech for the students. During the visit, students were introduced to ongoing research projects and had the opportunity to observe cutting-edge laboratory techniques and scientific instruments. Research scholars were engaged with the students, discussing key topics in modern biology, research methodologies, and career prospects in life sciences. The visit was an enriching experience, fostering scientific curiosity and strengthening academic collaboration between IISER-K and these colleges.



Ritabrata Ghosh, Technical Assistant, Facility-manager (CIF), Department of Biological Sciences participated in the 1st Annual meeting of India Bio Imaging on “Recent advances and innovations in Microscopy, imaging infrastructure development and global collaborations (IBI AM 2025)” on 11-12th Dec, 2025, held at JSS Academy of Higher Education & Research (AHER), Mysuru ; and presented a facility poster titled – “CENTRAL IMAGING FACILITY –for research and collaborations in the Indian Scientific Imaging Consortium”.

Migratory Birds at IISER Kolkata Campus





## One-Day Workshop on the National Education Policy (NEP) 2020 for School Children

A workshop on NEP 2020 was held on December 26, 2025, with participation from school students of Nadia and Hooghly districts. Students from several institutions, including Krishnanagar Public School, St. Joseph's Convent (Chandernagore), Techno India School, Bishop Morrow School, Krishnanagar Academy, and Narayana Public School, took part in the event. The workshop was inaugurated by the Dean of Students, Prof. Balaram Mukhopadhyay, who narrated the history of IISERs. The technical sessions began with an interactive discourse led by Prof. Subhajit Bandyopadhyay, focusing on the limitations of rote learning and emphasizing the role of creativity and critical thinking in education towards an Atmanirbhar Bharat, as envisioned in the National Education Policy (NEP) 2020. This was exemplified by an engaging lecture and a hands-on demonstration on bioluminescence, producing light with chemical reactions, which sparked considerable curiosity and enthusiasm among the students. The workshop concluded with a guided visit to the laboratories and instrumental facilities at IISER Kolkata, providing students with firsthand exposure to a modern research environment. The Scientific Social Responsibility (SSR) workshop was funded through a SERB/ANRF grant.



## Faculty Member's Achievements



Dr. Dibyendu Das, Department of Chemical Sciences, received the prestigious Vigyan Yuva Shanti Swarup Bhatnagar Award 2025 by Hon'ble President of India.

This well-deserved recognition is a testament to Dr. Das's outstanding contributions to the field of chemical sciences, his innovative research, and his commitment to advancing scientific knowledge. The award also brings great pride to our institute and serves as an inspiration to our students and colleagues alike.



We are delighted to share that Prof. Prasun Kumar Mandal, Department of Chemical Sciences, IISER Kolkata, has been elected as a Fellow of the West Bengal Academy of Science & Technology (WAST).



We are delighted to share that Prof. Arnab Gupta, Department of Biological Sciences, IISER Kolkata, has been elected as a Fellow of the West Bengal Academy of Science & Technology (WAST).



Prof. Swadhin Kumar Mandal has been selected as a distinguished scientist under the President's International Fellowship Initiative of the Chinese Academy of Sciences.



Prof. Nirmalya Ghosh has been Elected as a Distinguished Fellow of the International Engineering and Technology Institute.



Prof. Sourin Das with other PI and Co-PI got a SPARC Grant of Rs. 1,01,54,000/- for the project entitled "Machine Learning for Quantum Matter (ML4QM)".

## Seminars, lectures & Colloquia

[1st Jagadish Chandra Bose Lecture] Prof. Robert Fickler (Tampere University, Finland) -- Quantum optics with structured light, Date: Friday, Dec 05, 2025.

[DBS Seminar] Prof Sanjib Bhakta (The Institute of Structural and Molecular Biology UCL and Birkbeck, University of London) -- Cell-Wall Peptidoglycan: The Achilles' Heel of Mycobacteria and a Gateway to Novel Antimicrobial Drug Design. Date: Monday, Dec 15, 2025.

[DPS Seminar] Dr. Atri Dey (Uppsala University) -- Phenomenology of BSM physics: collide, DM, and additional, Date: Monday, Dec 15, 2025.

[DMS Seminar] Mr. Biplab Dawn (Senior PhD student, IIT Patna) -- Buchsbaumness, Macaulayfication and Castelnuovo–Mumford Regularity of Monomial Curves Date: Monday, Dec 15, 2025.

[DMS Seminar] Abhyuday Mandal (Professor, University of Georgia) -- Credible Distributions of Overall Ranking of Entities, Date: Tuesday, Dec 16, 2025.

[DCS Visitor's Seminar] Dr. Kapil Dev Sayla (PCI Synthesis (SEQENS), USA) -- "From BS-MS to the Real World: Navigating a PhD and an Industry Career" Date: Friday, Dec 19, 2025.

[DPS Seminar] Prof Andrew Briggs (University of Oxford) -- From Clock to Qubits: Quantum Computing: Advances and Opportunities, Date: Tuesday, Dec 23, 2025.

[DCS Visitor's Seminar] Dr. Suvendu Karak (IISER TVM) -- Tailoring Multi-dimensional Interfaces Toward Circular Carbon Chemistry, Date: Tuesday, Dec 30, 2025.



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