

IISER KOLKATA Newsletter



September, 2025

www.iiserkol.ac.in

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.

International Coastal Cleanup Day



On International Coastal Cleanup Day at Jaldha Mohana Beach, Mandarmani, the Environmental Nanoscience Laboratory, led by Dr. Gopala Krishna Darbha of IISER Kolkata, held a successful program in association with NCCR Chennai, engaging local communities, volunteers, and researchers to tackle marine plastic pollution. Volunteers collected 4,374 litter items weighing 155 kg, predominantly single-use plastics and fishing debris, which pose significant threats to coastal ecosystems.

The initiative included awareness sessions emphasizing sustainable waste management and conservation. This program not only improved beach cleanliness but also deepened public and academic commitment to preserving coastal health, highlighting IISER Kolkata's role in promoting environmental sustainability and community participation in climate resilience efforts.

Visit of Prof. Rangan Banerjee (Director, IIT Delhi) to IISER Kolkata

Prof. Rangan Banerjee, Director, IIT Delhi, launched the newly initiated Master's Programme in Sustainability Sciences for IISER Kolkata. While appreciating the timely and visionary efforts of IISER Kolkata, he delivered an Institute Colloquium on The Challenges of Sustainability: A Perspective from India, narrating Global and National challenges in Energy sustainability. He highlighted significant steps initiated by the government that will have a far-reaching impact on augmenting it. The faculty and students had a thought-provoking interaction with him. All of us thank Prof. Rangan Banerjee for delivering a wonderful and informative Colloquium.



Observance of the Government of India's initiative "Swachhata Pakhwada"



IISER Kolkata successfully observed the Government of India's initiative "Swachhata Pakhwada" on 13th September 2025. More than 150 faculty members, non-teaching staff, students, housekeeping staff, waste management staff, horticulture staff, security and campus residents actively participated by taking the Swachhata Pledge and cleaning both the campus and surrounding areas.

The Director, Prof. Sunil Kumar Khare, along with Nodal Officers Prof. Sumit Khanra and Prof. Suman De Sarkar, Associate Dean Dr. Kaushik Datta, and other officials and staff members, joined the drive and also took part in plantation activities.

IISER Kolkata reaffirms its commitment to support this Central Government initiative and continue efforts towards maintaining a clean and green campus

Workshop on Biotechnology Innovations

IISER Kolkata successfully hosted a Workshop on Biotechnology Innovations on 12 September 2025, featuring three distinguished experts. Prof. Ramkrishna Sen (IIT Kharagpur) discussed bio-inspired biorefinery concepts, Prof. Prashant Mishra (IIT Delhi) spoke on biosensor functionalization for enhanced selectivity, and Prof. Praytoosh Shukla (BHU) highlighted the role of AI-ML in bioprocess optimization. The workshop provided valuable insights into the future of biosciences in India.



Blood Donation Camp in collaboration with AIIMS Kalyani, organised at IISER Kolkata on 4th September 2025.



Hindi Diwas celebrations

Hindi Diwas celebrations were held in the Institute on 26th September 2025 during Rajbhasha Pakhwada 2025. The Chief Guest, Dr. Rajiv Kumar Rawat, Senior Hindi Officer, IIT Kharagpur, inaugurated the function, in the presence of Registrar, Mr. Joydeep Sil, Dean of Faculty Affairs, Prof. Ashwani Kumar Tiwari and Prof. Sanjio Shankarrao Zade, Convener, Official Language Implementation Committee, IISER Kolkata. Dr Rajiv Kumar Rawat delivered a lecture on “Use of Hindi in Information Technology and Computing”. In the second half of the programme, the theatre group Rangshilpi (Moulali) presented the play Jameela based on the story of Chingiz Aitmatov under the direction of Mr. Plaban Basu.



Faculty & Staff Achievements



We are delighted to share that our former faculty, Prof. Prasanta K. Panigrahi, has been elected as a Fellow of the Indian National Science Academy (INSA). He has been recognised for his outstanding contributions in the areas of quantum information, entanglement and teleportation, and nonlinear waves—including rogue waves in optics.

Equally noteworthy is his role in mentoring and training a very large number of students at both the Master's and doctoral levels, which received special mention in his citation.

Prof. Panigrahi currently serves as the Director of CQST (Center for Quantum Science and Technology), Siksha 'O' Anusandhan University.

On the 8th of September 2025, Dr. Surashree Dutta, Jr. Translation Officer, was invited to AIIMS Kalyani as the Keynote Speaker in a Workshop on Implementation of Hindi in the office.



IISER Kolkata Students Excel in CSIR NET June 2025 Examination

IISER Kolkata is proud to announce the outstanding performance of its students in the CSIR NET June 2025 examination. Four students have secured top ranks, reflecting the institute's commitment to academic excellence and research-oriented learning.

- Shraboni Ghosh (25RS044) secured an impressive All India Rank 33.
- Souvik Halder (21MS238) achieved All India Rank 82.
- Souhardya Mondal (24MP013) secured All India Rank 23 in the LS category.
- Dhee Pradhan (22MS127) achieved All India Rank 37.

Their remarkable achievements are a testament to their dedication, hard work, and the high-quality academic environment at IISER Kolkata. The Institute congratulates them and wishes them continued success in their future scientific pursuits.

Alumni Accolade

IISER Kolkata is proud to share that Dr. Sridip Pal, an alumnus of its flagship BS-MS program (Batch of 2014), has joined the prestigious Institut des Hautes Études Scientifiques (IHÉS), Paris as a faculty member.

A brilliant scholar, Dr. Pal distinguished himself early on by topping the National Standard Examination in Physics (NSEP) conducted by IAPT twice in succession during his undergraduate years at IISER Kolkata. Following his graduation, he pursued his PhD at the University of California, San Diego, and subsequently held postdoctoral positions at two of the world's leading research institutions – the Institute for Advanced Study (Princeton) and Caltech.

Dr. Pal's research focuses on the conformal bootstrap, a powerful nonperturbative framework for exploring the structure of conformal field theories, a central theme in modern theoretical physics.

IISER Kolkata congratulates Dr. Sridip Pal on this remarkable achievement and wishes him continued success in his academic journey.



We are glad to share the achievement of our alumna, Dr. Sunipa Dev, Senior Research Scientist at Google, who has been featured in the MIT Technology Review's Innovators Under 35 (2025). This recognition is a significant global acknowledgment of her extraordinary talent. see more: <https://ter.li/5tgwys>



CESSI Faculty achievements for the month of September 2025

Prof. Nirmalya Ghosh has been appointed as 'Research Advisor' in Tata Consultancy Services Ltd. (TCS), specifically for providing research advisory towards developing solutions on areas of GenAI assisted Plasmonic Sensing projects executed by TCS Innovation and Research Lab.



CESSI Grants Received for the month of September 2025

Prof. Nirmalya Ghosh's group received ANRF SUPRA grant of Three Crore Nine Lakh Eighty Six Thousand Eight Hundred INR for their proposal "Probing near-field assisted spin-orbit interaction of light towards development of spin-orbit photonic meta-devices".

CESSI Alumni Accolades for the month of September 2025

Dr. Sanchita Pal, an alumni of CESSI, IISER Kolkata who did her PhD working with Prof. Dibyendu Nandi, has received the Basu Early Career Award from the American Geophysical Union.

The award is given annually to a scientist from a developing nation who has made significant contributions to Space Physics and Aeronomy early in their research career.



CESSI Publication List for the month of September 2025

- "Classical optical realization of a joint weak measurement through optical beam shifts", Dhara, R., Guchhait, S., Sarkar, M., Ashutosh, S., Modak, N., & Ghosh, N, 2025, Physical Review A, Volume 112, Issue 2, Pages 023524.
- "GW250114: Testing Hawking's Area Law and the Kerr Nature of Black Holes", Abac AG, ... Nayak R K. et al., 2025, Journal Physical Review Letters, Volume 135, Issue 11, Pages 111403.
- "Recovery of the Solar Cycle from Maunder-Like Grand Minima Episodes: A Quantification of the Necessary Polar Flux Threshold Through Solar Dynamo Simulations", Saha, C., Chandra, S. & Nandy, D., 2025, Solar Physics, Volume 300, Article 125.

Seminars, Lectures and Colloquia

[A Special talk of the HSS seminar] Dr. Arvind Chinchure (Adjunct Professor IISER Pune) -- Inside the Mind of Nobel Laureates, Global Thinkers and CEOs, Date: Wednesday, Sep 03, 2025.

[A Special talk of the HSS seminar] Dr. Arvind Chinchure (Adjunct Professor IISER Pune) -- Inside the Mind of Nobel Laureates, Global Thinkers and CEOs, Date: Wednesday, Sep 03, 2025.

[DPS Colloquium] Prof. Piyali Chatterjee (IIA Bangalore) -- The paint on speaker analogy for the solar spicule forest, Date: Wednesday, Sep 03, 2025.

[DPS Seminar] Dr Praveen Bhallamudi (IIT Madras) -- Single-Photon and Superradiant Emission from NV Centers in Diamond, Date: Tuesday, Sep 09, 2025.

[DPS Seminar] Dr. Supriya Senapati (University of Massachusetts Amherst) -- Extended Seesaw Model Signatures: Neutrinoless Double Beta Decay and Leptogenesis, Date: Wednesday, Sep 10, 2025.

[DBS Seminar] Prof. Ramkrishna Sen, Prof. Prashant Mishra, Prof. Praytoosh Shukla -- innovations and advancements shaping the future of biosciences in India, Date: Friday, Sep 12, 2025.

[Institute Colloquium] Prof. Rangan Banerjee (IIT Delhi) - The Challenges of Sustainability: A perspective from India, Date: Tuesday, Sep 16, 2025.

[DPS Seminar] Dr Tanmoy Pandit (Technische Universitaet Berlin) -- Detecting and Mitigating Quantum Errors Across Diverse Hardware Platforms Date: Wednesday, Sep 17, 2025.

[DMS Topology & Geometry Seminar] Samik Basu (ISI Kolkata) -- Decomposition results in Topology, Date: Friday, Sep 19, 2025.

[DPS Seminar] Dr. Arindam Mitra (Korea Research Institute of Standards and Science) -- Relating completely positive divisibility of dynamical maps with compatibility of channels, Date: Wednesday, Sep 24, 2025.

[DPS Seminar] Dr. Dipanjan Mukherjee (IUCAA, Pune) -- The many facets of AGN feedback: theory and observations, Date: Thursday, Sep 25, 2025.

[CESSI Seminar] Suprabha Mukhopadhyay (Max Planck Institute for Solar System Research, Göttingen, Germany) -- Periodic phenomena in the Sun: timescales from months to millennia, Date: Friday, Sep 26, 2025.

