



SAIS Symposium 2025

Organized by the School of Applied and Interdisciplinary Sciences (SAIS)

Indian Association for the Cultivation of Science

2A and 2B Raja S. C. Mullick Road, Jadavpur, Kolkata 700032, West Bengal India

March 17-18, 2025; C. V. Raman Hall

MARCH 17, 2025 (DAY 1)	
INAUGURAL SESSION (Chair: Suhrit Ghosh, SAIS, IACS)	
10: 05 – 10:10	Welcome address by the Director , IACS
10: 10 – 10:20	Welcome address by the Chairperson , SAIS, IACS
SCIENTIFIC SESSION-1 (Chair: Benu Brata Das, SBS, IACS)	
10:20 – 11:05	PL1: Kaustuv Sanyal Director, Bose Institute, Kolkata, India <i>Title: Are three-dimensional genome organization principles conserved across evolutionary timescale?</i>
11:05 – 11:30	IL1: Jayasri Das Sarma Indian Institute of Science Education and Research Kolkata (IISER Kolkata), Mohanpur, India <i>Title: From Viral Defence to Cancer Therapy: The Broad-Spectrum Benefits of Neem Bark Extract and its Bio-active Compounds</i>
11:30 – 11:55	IL2: Tanmoy Saha Harvard Medical School, Cambridge, MA, USA <i>Title: Harnessing Nanoscale Cellular Communication for Designing Next-Generation Therapeutics</i>
11:55 – 12:25	Tea / Coffee break
SCIENTIFIC SESSION-2 (Chair: Parthasarathi Dastidar, SCS, IACS)	
12:25 – 12:50	IL3: Ayan Roy Chaudhuri Indian Institute of Technology Kharagpur (IIT-KGP), Kharagpur, India <i>Title: Tailoring Charge Transfer Doping of 2D TMDC Monolayers by Epitaxial High-κ Dielectric Thin Films</i>
12:50 – 13:15	IL4: T. Kanagasekaran Indian Institute of Science Education and Research Tirupati (IISER Tirupati), Tirupati, India <i>Title: The possibilities of laser emission using organic semiconductor single crystals</i>
13:15 – 14:30	Lunch
SCIENTIFIC SESSION-3 (Chair: Jyotirmoyee Dash, SCS, IACS)	
14:30 – 15:15	PL2: Samrat Mukhopadhyay Indian Institute of Science Education and Research Mohali (IISER Mohali), Mohali, India <i>Title: Biological Phase Transitions: Where Chemistry and Physics Meet Biology</i>
15:15 – 15:40	IL5: Apurba L. Koner Indian Institute of Science Education and Research Bhopal (IISERB), Bhopal, India <i>Title: Deciphering stimuli-responsive properties of sub-cellular organelles</i>
15:40 – 16:05	IL6: Maumita Bhaumik National Institute of Cholera and Enteric Diseases (NICED), Kolkata, India <i>Title: Functional knockdown of RNA binding protein, AUF1 in mice by unique cell penetrating morpholino disrupts gut barrier function and phenocopies colitis</i>
16:05 – 16:20	Tea / Coffee break
SCIENTIFIC SESSION-4 (Chair: Rajib Goswami, SCS, IACS)	
16.20 – 17.30	Student Flash Talks FT 1: Aditya Dutta <i>Title: Mixed species active matter systems with non-reciprocal interactions</i> FT 2: Anashmita Ghosh <i>Title: Switchable Bulk Photovoltaic Effect in Intrinsically Ferroelectric 3D All-inorganic CsPbBr₃ Perovskite Nanocrystals</i> FT 3: Atanu Ghosh <i>Title: A P(III) Platform for the Synthesis of Morpholino Oligonucleotides and Diverse Chimeric Backbone in an Automated DNA Synthesizer</i>

	FT 4: Prakash Sarkar <i>Title: Nature-Inspired Halide Perovskite Breath Figures: Unleashing Enhanced Light-Matter Interaction</i> FT5: Pulakesh Pramanik <i>Title: Insights into Computational Approaches for G-Quadruplex Prediction in the Human Genome</i> FT 6: Ranjit Manna <i>Title: Exploring Conjugated Chromophores for π-π Stacking and Solid-State Luminescence</i> FT 7: Saily Sriwastav <i>Title: Northiosquaraine-Based Nanoparticles for Red-Light-Induced Photodynamic Therapy via Singlet Oxygen Generation</i> FT 8: Soumya Koner <i>Title: Excellent Surface Functional Group Display in Chain-Folding Regulated Assembly of Amphiphilic Polyurethane</i> FT 9: Subhendu Biswas <i>Title: Design and Synthesis of Enzymatically-Degradable Amphiphilic Polyesters and Exploring Their Functions in the Biological Domain</i> FT 10: Swadesh Paul <i>Title: Lead-free ZnTiO₃ Nanocomposites for Low-Frequency Mechanical Energy Harvesting</i>
19.30 – 11:00	Banquet
MARCH 18, 2025 (DAY 2)	
SCIENTIFIC SESSION-5 (Chair: Pradyut Ghosh, SCS, IACS)	
10:00 – 10:45	PL3: J. N. Moorthy Director, Indian Institute of Science Education and Research Thiruvananthapuram (IISER TVM), Trivandrum, India <i>Title: Helicenes: Photochromism, Chiroptical Properties and Chirality Sensing</i>
10:45– 11:10	IL7: Sobhan Sen Jawaharlal Nehru University, New Delhi, India <i>Title: New Family of Fluorescent Probes for Spectroscopy and Imaging of Lipid Membrane: Gaging Antibiotic Induced Membrane Damage</i>
11:10 – 11:30	Tea/Coffee break
SCIENTIFIC SESSION-6 (Chair: Amitava Patra, SMS, IACS)	
11:30 – 12:15	PL4: Bikramjit Basu Director, CSIR-Central Glass and Ceramic Research Institute (CSIR-CGCRI), Kolkata, India <i>Title: Layer-by-layer printing of hydrogels for tissue regeneration</i>
12:15– 12:40	IL8: Dipak Kumar Goswami Indian Institute of Technology Kharagpur (IIT-KGP), Kharagpur, India <i>Title: Organic Field-Effect Transistors for Biomedical Sensing: Scalable Integration of Receptor Molecules for Next-Generation Diagnostic Devices</i>
12:40 – 13:05	IL9: Srabanti Ghosh CSIR - Central Glass and Ceramic Research Institute (CGCRI), Kolkata, India <i>Title: Charge carrier traps in semiconductor heterojunction: An elegant strategy for solar-to-chemical energy conversion</i>
13:05 – 13:10	Vote of thanks by Anindita Das (SAIS, IACS)
13:05 – 14:30	Lunch and Departure

PL: Plenary Lecture (40+5 mins); IL: Invited Lecture (22+3 mins); FT: Flash Talk (8 mins)