

International Symposium on Designer Polymers & Materials (ISDPM-2025)

Venue: Raman Hall, Lecture Hall Complex, IISER Pune

Date: 23-25, October 2025

Technical Programme

Day-1

23rd October 2025, Thursday

07.30-08.45	Registration
08.45-09.00	Inauguration
Technical Session -1	
09.00-09.30 Invited Talk 1	S. Thayumanavan , UMASS Amherst, USA Active and Activatable Polymers for Targeted Protein Degradation
09.30-10.00 Invited Talk-2	Rint Sijbesma , Eindhoven University of Technology, The Netherlands Catch Bonds in Dynamic Covalent Networks
10.00-10.25 Invited Talk-3	Suhrit Ghosh , IACS Kolkata Hierarchical Assembly of Foldable Polyurethanes and Functional Materials
10.25-10.50 Invited Talk-4	Subi George , JNCASR Bengaluru Molecular Programming at the Higher Hierarchical Levels of Supramolecular Polymers
10.50-11.00	Group Photograph
11.00-11.15	Tea/Coffee Break
Technical Session -2	
11.15-11.45 Invited Talk-5	Albert P.H.J. Schenning , Eindhoven University of Technology, The Netherlands Smart Materials Based on Liquid Crystal Polymers
11.45-12.15 Invited Talk-6	Amitav Sanyal , Bogazici University, Turkey Polymer Brushes: Combining Orthogonal Chemistries to Design Functional Interfaces
12.15-12.40 Invited Talk-7	Pinaki Talukdar , IISER Pune Engineering Supramolecular Channels for Responsive Ion Transport and Biomedical Applications
12.40-13.05 Invited Talk-8	Umraprasana Ojha , IIT Bhubaneswar Tough & Functional Hydrogels for Robotics & Soft Electronics Applications
13.05-14.30	Lunch Break
Technical Session -3	
14.30-14.55 Invited Talk-9	Anil Kumar , IIT Bombay Rapidly Changing Face of Organic Chemistry and Chemical Manufacturing: A New Paradigm via Continuous Process Intensification
14.55-15.20 Invited Talk-10	Parbati Biswas , University of Delhi Rheology of Ring Copolymers in Dilute Solutions
15.20-15.45 Invited Talk-11	Kadhiravan Shanmuganathan , CSIR-NCL, Pune Designing Polymer Microcapsules for Staged and Sustained Delivery of Agrochemicals
15.45-16.10 Invited Talk-12	Tushar Jana , University of Hyderabad Evolution of Glycopolymer-Lectin Interfaces: Architectural and Functional Control via RAFT Polymerization
16.10-16.35 Invited Talk-13	Nirmalya Ballav , IISER Pune Facing the Interface: Hetero-Structured Thin Films of Coordination Polymers

16.35-17.10 Invited Talk-14	J. Nithyanandhan , CSIR-NCL Pune Strategies to Control the Aggregation of Dyes on Surfaces: Functional Aggregates for Photocurrent Generation
17.10-17.30	Tea/Coffee Break
Technical Session -4	
17.30-17.55 Invited Talk-15	Abhijit Patra , IISER Bhubal Nanoporous Crystalline Thin Films through Liquid-Liquid Interfacial Polycondensation
17.55-18.20 Invited Talk-16	Samir H. Chikkali , CSIR-NCL, Pune Waste Plastic Depolymerization and Upcycling
18.20-18.45 Invited Talk-17	Musthafa Ottakam Thotiyil , IISER Pune Water Formation Energy Driven Electrochemical Process Modulation
18.45-19.10 Invited Talk-18	Kothandam Krishnamoorthy , CSIR-NCL, Pune Approaches for the Fabrication of Efficient Li-S Batteries
20.00 Hrs	Dinner

Day-2

24th October 2025, Friday

Technical Session -5	
09.00-09.25 Invited Talk 19	Tarun K. Mandal , IACS Kolkata Stimuli-Responsive Poly(2-oxazoline) Copolymer Assemblies
09.25-09.50 Invited Talk-20	Priyadarsi De , IISER Kolkata Synthesis of High-Performance Norbornene-Based Polymers <i>via</i> Cationic Polymerization
09.50-10.15 Invited Talk-21	Ashootosh V. Ambade , CSIR-NCL, Pune Stimuli-responsive polymer architectures and PET-RAFT polymerization for bio-based block copolymers
10.15-10.40 Invited Talk-22	Raj Kumar Roy , IISER Mohali Aromatic Polyamides: From Molecular Folding to Functional Bulk Assemblies
10.40-11.00 Invited Talk-23	T. Senthilkumar , CSIR-IIP, Dehradun Biochar Infused Polymer Composites for 3D Printing Applications
11.00-11.15	Tea/Coffee Break
Technical Session -6	
11.15-11.40 Invited Talk-24	Kana M. Sureshan , IISER Thiruvananthapuram Topochemistry for solving challenges in polymer synthesis
11.40-12.05 Invited Talk-25	Pritam Mukhopadhyay , Jawaharlal Nehru University, New Delhi Organic Multi-state Redox Systems and their Multifunctionality
12.05-12.30 Invited Talk-26	Anindita Das , IACS Kolkata A Versatile Condensation Polymerization Route to Degradable Polymers and Their Biomedical Implications
12.30-12.55 Invited Talk-27	Pankaj Mandal , IISER Pune Nonlinear Photonics in Low-dimensional Perovskites
12.55-13.20 Invited Talk-28	Ramkrishna Sarkar , IIT Kanpur Enabling the recyclability of the cross-linked polymers via dynamic linkages
13.20-14.30	Lunch Break
Technical Session -7	
14.30-14.55 Invited Talk-29	Raja Shunmugam , IISER Kolkata Designing Functional Polymers for Stimuli-Responsive Applications
14.55-15.20 Invited Talk-30	Debasis Koley , IISER Kolkata Main-group Complex Catalyzed Small Molecule Activation: Computational Mechanistic Studies

15.20-15.45 Invited Talk-31	E. Bhoje Gowd , CSIR-NIIST Thiruvananthapuram Crystallization Versus Phase Separation in Diblock Copolymers and Non-Covalent Triblock Terpolymers
15.45-16.10 Invited Talk-32	Guruswamy Kumaraswamy , IIT Bombay Routes to Microplastic Formation
16.10-16.35 Invited Talk-33	Harshawardhan V. Pol , CSIR-NCL, Pune Controlling Material & Process Defects in Polymer Melt Extrusion Film Casting Process Using Polymer Composites & Blends
16.35-16.55 Invited Talk-34	Swapnil L. Sonawane , Netaji Subhas University of Technology (NSUT), New Delhi Synthesis of Photoresponsive Chitosan–Azobenzene functional polymers with Antimicrobial Properties
16.55-17.15	Tea/Coffee Break
Technical Session -8: Polymer Industry Perspectives	
17.15-17.35 Invited Talk-35	G. Padmanabhan , Asian Paints, Mumbai Microstructure Analysis of Emulsion Polymers
17.35-17.55 Invited Talk-36	Abhijit Som , Aditya Birla, Mumbai Role of Polymer Science in Wind Energy
17.55-18.15 Invited Talk-37	Nagesh Kolhe , Cosmo Films Ltd, Aurangabad, India Innovation in Graphics & Packaging Films- Sustainable Alternatives
18.15-19.30	Poster Session
20.00 Hrs	Dinner

Day-3

25th October 2025, Saturday

Technical Session -9	
09.00-09.25 Invited Talk 38	Satish Patil , IISc Bengaluru Modulating Spatial and Temporal Stability of Delocalised Polarons in Diketopyrrolopyrrole-based Electrochromic Polymers
09.25-09.50 Invited Talk-39	Santhosh Babu Sukumaran , CSIR-NCL, Pune Polymer-Carbon Nanotube Hybrids for Advanced Wearable Electronics
09.50-10.10 Invited Talk-40	Kiran S, CISR-NCL , Pune Design and 3D printing of biocompatible polymeric scaffolds for airway disorders
10.10-10.30 Invited Talk-41	Pravin G. Ingole , CSIR-NEIST, Jorhat Smart Polymer Membranes for Sustainable Water Treatment and Gas Separation
10.30-10.50 Invited Talk-42	Asha Syamakumari , CSIR-NCL, Pune Photo-crosslinkable Resin Formulations for Light Based 3D Printing Application
10.50-11.10 Invited Talk-43	Manickam Jayakannan , IISER Pune Probing Intracellular Organelle Fusion and Fission in Biology
11.10-11.30	High Tea
11.30 -13.00	Felicitation & Concluding Remarks
13.00-Onwards	Lunch & Departure