



APA International Conference on Polymers for Advanced Technology

13-15 October, 2025 | Udaipur, Rajasthan, India

Day-1 | 13th Oct, 2025 | Programme

08:00-onwards | Registration

Inauguration (Main Hall)

Time: 09:00 - 10:15

Bouquet Presentation/ Lamp Lighting

Time: 09:00-09:05

Welcome Address

Jyoti Chaudhary (Conference Chair, MLSU, Udaipur)

Time: 09:05-09:10

Presidential Address

Bhuvanesh Gupta (Conference Patron, APA President)

Time: 09:10-09:15

APA Address

Anup K. Ghosh (Conference Chair, IIP, New Delhi)

Time: 09:15-09:20

Theme Address

Sanjay Nayak (Conference Chair, Vice Chancellor, Ravenshaw University, Cuttack)

Time: 09:20-09:25

Conference Address

Kapil Malhotra (Guest of Honor, Global Business Head, Gujarat Fluorochemicals Ltd, Noida)

Time: 09:25-09:35

Conference Address

Anupam Goel (Guest of Honor, General Manager, Survival Technologies Ltd., Mumbai)

Time: 09:35-09:45

Inaugural Address

Ram Sharma (Chief Guest, Vice Chancellor, UPES, Dehradun)

Time: 09:45-10:10

Time: 10:10-10:15 | Memento Presentation

Vote of Thanks

Susheel Kalia (Conference Secretary, IMA, Dehradun)

Time: 10:15-10:20

Time: 10:20-11:00 | Inaugural Tea

Session 1 | Venue: Main Hall

Plenary Lectures

*Chairs: Guenther G. Scherer, Switzerland &
Anup K. Ghosh, IIP, New Delhi*

Time: 11:00-11:30

Insights into Thermostable Cyanurate- and Benzoxazine-Containing Thermosetting Polymers and Composites

Daniel Grande, CNRS, Strasbourg, France

Time: 11:30-12:00

Strategic Evolution of Fluoropolymers within the Framework of Global Materials Innovation

Kapil Malhotra, Gujarat Fluorochemicals Limited, India

Session 2 | Venue: Main Hall

Industry Plenary Session

*Chairs: Kohzo Ito, Univ. of Tokyo, Tokyo, Japan, &
Manohar V. Badiger, NCL Pune, India*

Time: 12:00-12:30

Broad molecular weight HDPE by a two-step slurry polymerization process

Harshad Patil, Relaince Industries Ltd., Mumbai, India

Time: 12:30-13:00

Innovative Polyolefins for Next-Gen Applications

Alakesh Ghosh, HMEL, Noida, India

13:00-14:00 | Lunch Break

Session 3 : Microsymposium on Herbal Bioengineering

*Chairs: Yashveer Singh, IIT Ropar, India &
Padma Venkat, UPES, Dehradun, India*

Venue: Main Hall

Time	Lecture	Title/Author
14:00-14:20	IL	Herbal Bioengineering: A Convergence of Ayurveda and Modern Science for Wound Healing and Human Health Rahul Sherkhane <i>Institute of Medical Sciences, Banaras Hindu University, Varanasi, India</i>
14:20-14:40	IL	Controlled Drug Delivery for Better Healthcare Pralay Maiti <i>Indian Institute of Technology (BHU), Varanasi, India</i>
14:40-15:00	IL	Plant Bio-actives, Drug Combinations, and Processing for Novel Drug Leads: An Integrated Approach from Tradition to Technology Binay Sen <i>Banaras Hindu University, Varanasi, India</i>

Session 4 : Microsymposium on Sustainability

Chairs: K. C. Trehan, Adeka Groups, Mumbai, India &
S. M. Tauseef, UPES, Dehradun, India

Venue: Hall-1

Time	Lecture	Title/Author
14:00-14:20	IL	Sugarcane Bagasse Derived Hemicellulose-Clay Nanocomposite Aerogel for Controlled Release of Fertilizer Deepak Pathania <i>Central University of Jammu, Jammu & Kashmir, India</i>
14:20-14:40	IL	Revolutionizing Food Packaging with Sustainable Polymers: Indian Innovations and Challenges Kirtiraj K Gaikwad <i>Indian Institute of Technology, Roorkee, India</i>
14:40-15:00	IL	Polyurethane polymers from bio-based building blocks and their multifaceted applications Rakesh K. Sharma <i>The Maharaja Sayajirao University of Baroda, Vadodara, India</i>

Session 5 : Microsymposium on Bio-based polymers

Chairs: Alakesh Ghosh, HMEL, Noida, India &
D. S. Bag, DMSRDE, Kanpur, India

Venue: Hall-2

Time	Lecture	Title/Author
14:00-14:20	IL	Sustainable Valorization of Textile and Agro-Wastes into functional Cellulosic Materials Archana Samanta <i>Indian Institute of Technology Delhi, New Delhi, India</i>
14:20-14:40	IL	Orange Waste Valorization to design a sustainable Biomaterial, as Nutraceutical Health Supplement by Molecular Imprinting Anupama Kumar <i>Visvesvaraya National Institute of Technology, Nagpur, India</i>
14:40-15:00	IL	Cellulosic paper-polymethyl methacrylate device for heavy metal detection Ashish Kapoor <i>Harcourt Butler Technical University, Kanpur, India</i>

Session 6 : GFL Microsymposium on hydrogen energy

Chairs: Yash Gupta, GFL, Noida, India &
Devesh Avasthi, UPES, Dehradun, India

Venue: Hall-3

Time	Lecture	Title/Author
14:00-14:20	IL	Hydrogen Energy and CSIR: Connecting Deep Science with Technologies Sreekumar Kurungot <i>CSIR-National Chemical Laboratory, Pune, India</i>
14:20-14:40	IL	Harnessing Fluoropolymers for Advanced Corrosion Mitigation in Industrial Applications Raxit Rodiya <i>Gujarat Fluorochemicals Limited, Vadodara, India</i>
14:40-15:00	IL	Flexible Devices Beyond Triboelectricity: Combating Charge Artifacts for Antistatic and True Piezoelectric Performance Tridib Kumar Sinha <i>Department of Chemistry, Applied Science Cluster, School of Advanced Engineering, UPES, Dehradun, India</i>

Session 7 : Biomaterials & Bioengineering

Chairs: Rahul Sherkhane, IIT BHU, India &
Ashish Mathur, UPES, Dehradun, India

Venue: Main Hall

Time	Lecture	Title/Author
15:00-15:20	IL	Biomaterials for tissue regeneration applications Yashveer Singh <i>Indian Institute of Technology, Ropar, India</i>
15:20-15:40	IL	Mucoadhesive Polymers as In-Situ Gels and 3D Printed Films for Buccal Delivery of Cannabinoids Ali Seyfoddin <i>Auckland University of Technology, Glenbrook, New Zealand</i>
15:40-16:00	IL	Fabrication of Biosensors for Food toxins and food adulterants Sumana Gajjala <i>National Physical Laboratory, New Delhi, India</i>
16:00-16:10	OL	Biomaterials Integrated with Phage Therapy and Phytochemicals for Wound Healing Applications Ruchi Mishra Tiwari <i>Symbiosis International (Deemed University), Pune, India</i>
16:10-16:20	OL	Next Generation 2-Dimensional Materials and Nano-Bio Composites for Biosensing, Food Safety and other Health-Care Applications Kanchan Yadav <i>Department of Materials Engg., Indian Institute of Science, Bengaluru, India</i>
16:20-16:30	OL	Designing Bioinspired Multicomponent Supramolecular Peptide-Biopolymer Based Composite Scaffold To Recapitulate Differential Cellular Microenvironment Shambhavi Kashyap <i>INST Mohali, Mohali, India</i>

Session 8 : Polymer Synthesis

Chairs: Anupama Kumar, NIT Nagpur, India &
Himansu Sekhar Nanda, IIITDM, Jabalpur, India

Venue: Hall-1

Time	Lecture	Title/Author
15:00-15:20	IL	Polymerization reactions in the atmosphere Ravi Kant Pathak <i>University of Gothenburg, Sweden</i>
15:20-15:40	IL	Toward Sustainable Self-Healing Materials: Vitriimer Composite Systems Sravendra Rana <i>UPES, Dehradun, India</i>
15:40-16:00	IL	Smart Polymeric Systems for Sustainable Delivery and Protection: Advances in Microencapsulation, Hydrogels, and Self-Healing Materials Vikas Vitthal Gite <i>School of Chemical Sciences, KBC North Maharashtra Univ., Jalgaon, India</i>
16:00-16:10	OL	Radiation and Plasma Assisted Development of Efficient Catalytic Systems for water pollutant remediation Swarnima Rawat <i>Bhabha Atomic Research Centre, Mumbai, India</i>
16:10-16:20	OL	Condensation Polymerisation of Nylon 66 for flame retardant application Sundaramoorthy Palanisamy <i>Northern India Textile Research Association, Ghaziabad, India</i>
16:20-16:30	OL	Broad molecular weight HDPE by a two-step slurry polymerization process Sanket Shah <i>Relaince Industries Ltd., Mumbai, India</i>

Session 9 : Nanomaterials & Nanotechnology

Chairs: R. K. Goyal, MNIT, Jaipur, India &
Rajesh, NPL, New Delhi, India

Venue: Hall-2

Time	Lecture	Title/Author
15:00-15:20	IL	Supersonic solution blowing: a novel method in nonwoven to produce 50 nm fibers en masse Sumit Sinha Ray <i>Indian Institute of Technology Delhi, New Delhi, India</i>
15:20-15:40	IL	Energy Augmentation of Triboelectric Nanogenerator by Interface Engineering in Polymer and Polymer Composites Ankur Goswami <i>Indian Institute of Technology Delhi, New Delhi, India</i>
15:40-16:00	IL	Wound Healing Efficacy of a Drug-Free Nanocomposite Hydrogels in Drosophila and Rat Models Sarat Kumar Swain <i>Veer Surendra Sai University of Technology, Sambalpur, India</i>
16:00-16:10	OL	Fe ₃ O ₄ -Decorated Sulfonated Graphene Oxide Nanocomposites: A Dual-Action System for Dye Degradation and Microbial Inhibition Himanshu Sharma <i>Mohanlal Sukhadia University, Udaipur, India</i>
16:10-16:20	OL	Development and Characterization of Jackfruit Seed Starch-Based Nanocomposite Films for Sustainable Active Packaging Applications Rashmi B J <i>M. S Ramaiah University of Applied Sciences, Bengaluru, India</i>

Session 10 : Functional & Smart Materials

Chairs: : Anil K. Sharma, BKT, Mumbai, India &
Kirti Gaikwad, IIT Roorkee, India

Venue: Hall-3

Time	Lecture	Title/Author
15:00-15:20	IL	Smart and Multifunctional Polymers: Bridging Innovation and Application Dibyendu Sekhar Bag <i>Defence Materials and Stores Research and Development Establishment (DMSRDE), Kanpur, India</i>
15:20-15:40	IL	Agriwaste-derived biopolymers: A Sustainable and Effective Substrate for Immobilizing Enzymes for Wastewater Remediation Anupama Sharma <i>Panjab University, Chandigarh, India</i>
15:40-16:00	IL	Closed-loop recyclable crosslinked polymeric materials via dynamic transesterification Ramkrishna Sarkar <i>Indian Institute of Technology, Kanpur, India</i>
16:00-16:10	OL	Nadimide-substituted phthalonitrile resin (NPRs) and their structure-property evaluation for high temperature applications Ajit Shankar Singh <i>DMSRDE, Kanpur, India</i>
16:10-16:20	OL	Engineering Smart Actuating Microgels for Stimuli-Triggered Drug Delivery Divya Dheer <i>Chitkara University, Panchkula, India</i>
16:20-16:30	OL	Agarose hydrogel-based sensing platform for rapid detection of food toxicants Anjali Awasthi <i>HBTU, Kanpur, India</i>

Session 11 | Tea Break & Poster Session (Venue: Green Lawn)

Time: 16:30-17:30

*Coordinators: Susheel Kalia, IMA, Dehradun, India &
Manali Somani, Indian Institute of Packaging, New Delhi, India*

Session 12 | APA Distinguished Plenary (Venue: Main Hall)

Time: 17:30-18:15

Chairs: Daniel Grande, CNRS, Strasbourg, France & Ashwini K. Nangia, UPES, Dehradun, India

Polymers for Hard and Soft Tissue Regeneration and Repair

Jonathan C. Knowles
University College London, London, UK

18:15-19:00 – Group Photo & Networking

Time: 19:00-22:00

Cultural Programme, APA Award presentation (Main Hall) | Conference Dinner (Green Lawns)



Day-2 | 14th Oct, 2025 | Programme

08:00-onwards | Registration

Session 13 : Plenary Lectures

*Chairs: Jonathan C. Knowles, UCL, London, UK &
Ravi Kant Pathak, Univ. of Gothenburg, Sweden*

Venue: Main Hall

Time	Lecture	Title/Author
09:00-09:30	PL	Slide-Ring Materials for Circular Economy Kohzo Ito <i>The University of Tokyo and National Institute for Materials Science, Japan</i>
09:30-10:00	PL	Wearable e-Textiles for Gait Analysis Ashwini Agrawal <i>Indian Institute of Technology Delhi, New Delhi, India</i>

10:00-10:30 | Tea Break

Session 14 : Biomaterials & Bioengineering

*Chairs: Pralay Maiti, IIT BHU, Varanasi, India &
Ankur Goswami, IIT Delhi, New Delhi, India*

Venue: Main Hall

Time	Lecture	Title/Author
10:30-10:50	IL	Pellet Extrusion 3D Printing of Polymer-Ceramic Composites for Cleft Palate Repair: Design, Fabrication, and Preliminary Evaluation Shiny Velayudhan <i>Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, India</i>
10:50-11:10	IL	Improving Mechanical Performance of Bioactive Chitosan-Hydroxyapatite Membranes Using Functionalized MWCNTs for Guided Bone Regeneration Himansu Sekhar Nanda <i>IIITDM, Jabalpur, India</i>
11:10-11:30	IL	Smart Molecularly Imprinted Polymers: Next-Generation Recognition Platforms for Biosensing Applications Ashish Mathur <i>UPES, Dehradun, India</i>
11:30-11:40	OL	Preparation and Characterization of Bacterial Cellulose based Shape Memory Aerogels for Rapid Hemostasis Ankita Sharma <i>Indian Institute of Technology Delhi, New Delhi, India</i>
11:40-11:50	OL	Melt Electrowriting of PCL-BaTiO ₃ Scaffolds: Advancing Print Fidelity, Mechanical Performance, and Biofunctionality Dhrmendra Sablaniya <i>IISc, Bangalore, India</i>
11:50-12:00	OL	V Amylose: An Intestine Targeted Delivery System for Controlled Release of Flufenamic Acid Rabab Fatima <i>UPES, Dehradun, India</i>

Session 15 : Start-up India Conclave

*Chairs: Smita Mohanty, CIPET, Bhubaneswar, India &
Anupam Gupta, SmartBio Innovations Pvt Ltd, New Delhi, India*

Venue: Hall-1

Time	Industry Names
10:30-10:40	Carbonout Technologies
10:40-10:50	White Shark Polymers
10:50-11:00	Sal Robotics
11:00-11:10	SBio Sciences
11:10-11:20	Nature Safety Sol. Pvt. Ltd.
11:20-12:00	Round Table Discussion

Session 16 : Advanced Materials

*Chairs: Pankaj Kumar, UPES, Dehradun, India &
Drarmesh Varade, Navrachana Univ. Vadodara, India*

Venue: Hall-2

Time	Lecture	Title/Author
10:30-10:50	IL	Sustainability and Circularity in Plastics Waste: Assessment, Opportunities and Challenges in Biobased, Biodegradable and Recycled Plastics Smita Mohanty <i>CIPET, Bhubaneswar, India</i>
10:50-11:10	IL	Fabrication of nanostructured chitosan - based films for food preservation applications: An investigation of graphene stacks on mechanical and barrier properties Sidhharth Sirohi <i>Bhaskaracharya College Of Applied Sciences (Univ. Of Delhi), Delhi, India</i>
11:10-11:30	IL	Advances in Polymeric Nanocomposite - Based Functional Membranes for Water Purification Shikha Wadhwa <i>UPES, Dehradun, India</i>
11:30-11:40	OL	Development of CMC-Starch-Based Biodegradable Films for Sustainable Packaging Applications Manali Somani <i>Indian Institute of Packaging, Delhi, India</i>
11:40-11:50	OL	Dielectric relaxation and electrical conductivity of Magnetic Iron Oxide nanoparticle reinforced silicone elastomer nanocomposites Abhishek Sharma <i>Dr. C.V. Raman University, Bilaspur (C.G.) Bilaspur, India</i>
11:50-12:00	OL	Efficient Energy Harvesting Using Processed Poly(vinylidene fluoride) Nanogenerator Anupama Gaur <i>Indian Institute of Technology, Patna, India</i>

Session 17 : Wiley Student Oral Contest

Chairs: Sarvendra Rana, UPES, Dehradun, India &
Susheel Kalia, IMA, Dehradun, India

Venue: Hall-3

Time	Lecture	Title/Author
10:30-10:40	OL	Pro-angiogenic self-assembled peptide gel for wound healing application Saurav Kumar <i>Indian Institute of Technology, Mandi, India</i>
10:40-10:50	OL	Green Synthesis of Thermoregulating Regenerated Cellulosic Fibers from Textile Waste for Sustainable Polymer Applications Blesson Tom Mathew <i>Indian Institute of Technology Delhi, Delhi, India</i>
10:50-11:00	OL	Development of Chemically Modified Hollow Nanospheres for Targeted Delivery of Anti-Cancer Agents Jiwanjot Sharma <i>Thapar Institute of Engineering & Technology, Patiala, India</i>
11:00-11:10	OL	Development of a 3D Neural Tissue Model for In Vitro Brain Aging Studies Varsha Pai V <i>Manipal Centre for Biotherapeutics Research, Manipal, India</i>
11:10-11:20	OL	Synthesis and Characterization of Zein based Biodegradable radiopaque Microbeads for Trans Arterial Chemoembolization Jinsu Mariya Sam <i>Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, India</i>
11:20-11:30	OL	4D Bioprinted pH-responsive Hydrogel Scaffold with Tannic Acid and Sr ²⁺ Se Co-doped Bioglass for Targeted Osteosarcoma Treatment Sumit Suprabhat Behera <i>Indian Institute of Technology, Mandi, India</i>
11:30-11:40	OL	Waste to wealth: Productive use of agricultural waste for microwave absorption and achieving circular economy Vaibhav Sanjay Darekar <i>Malaviya National Institute of Technology Jaipur, Jaipur, India</i>
11:40-11:50	OL	Development of Chitosan-azo-vanillin Schiff bases for photochromic and antimicrobial applications Akash Siotey <i>Netaji Subhash University of Technology, New Delhi, India</i>
11:50-12:00	OL	pH-Sensitive Electrospun Fibrous Films for Food Spoilage Monitoring K. M. Mansi Aditya <i>Indian Institute of Technology, Jammu, India</i>

Wisdom Contest

Time: 12:00-13:00

Coordinators: Chetna Verma, IIT Delhi, New Delhi, India

13:00 -14:00 | Lunch Break

Session 18 : Biomaterials & Bioengineering

Chairs: Ali Seyfoddin, New Zealand &
Anupama Sharma, Punjab Univ., Chandigarh, India

Venue: Main Hall

Time	Lecture	Title/Author
14:00-14:20	IL	Self-assembled Hydroxyapatite Nano-spicule Coating on 3D Printed PLA Scaffolds with Bactericidal Activity for Bone Regeneration Sumit Murab <i>Indian Institute of Technology, Mandi, India</i>
14:20-14:40	IL	Synthesis and Characterisation of Kaolin integrated Gellan gum based composite sponge Ashika Suresh <i>Sree Chitra Tirunal Institute for Medical Science and Tech, Trivandrum, India</i>
14:40-15:00	IL	Development of in vitro Tissue Engineered Model for Giant Cell Tumour of Long Bones Amit Kumar Jaiswal <i>Vellore Institute of Technology Vellore, Vellore, India</i>
15:00-15:10	OL	Formulation and Evaluation of electrospun Antimicrobial Scaffolds for biomedical applications Aditya Ramchandra Nemade <i>MS Ramaiah University of Applied Sciences, Bengaluru, India</i>
15:10-15:20	OL	Kaempferia galanga herbal supplementation alleviates hyperglycemia-induced dyslipidemia, oxidative stress, and apoptosis in BALB/c diabetic mice Flavius Phranagsngi Nonglang <i>North Eastern Hill University, Shillong, India</i>
15:20-15:30	OL	Synthesis of binary films Chitosan/Starch using glutaric acid and its Characterization Virpal Singh <i>M.J.P Rohilkhand university Bareilly, India</i>
15:30-15:40	OL	Multiwell hydrogel for in vitro 3D cancer model fidelity Rajesh Vasita <i>Central University of Gujarat, Vadodara, India</i>

Session 19 : Nanomaterials & Nanotechnology

Chairs: Rakesh Kumar, CUSB, Gaya, India &
Deepak Pathania, Central Univ., Jammu, India

Venue: Hall-1

Time	Lecture	Title/Author
14:00-14:20	IL	Effect of Rice Husk Ash particles on Mechanical Properties and Microwave Absorption of Glass Fiber Reinforced Epoxy Hybrids Rajendra Kumar Goyal <i>MNIT, Jaipur, India</i>
14:20-14:40	IL	Clay Based Nanocomposite Hydrogels Containing Metal Nanoparticles Dharmesh Varade <i>Navrachana University, Vadodara, India</i>
14:40-15:00	IL	Liquid crystal Based Dielectric Nucleic acid Biosensor for Label-Free Detection of Neisseria gonorrhoeae Rajesh <i>CSIR-National Physical Laboratory, New Delhi, India</i>

15:00-15:10	OL	Eco-Friendly Synthesis of Al ₂ O ₃ /CeO ₂ -Biochar Nanocomposites for Efficient Water Purification: Targeting Pb ²⁺ and Pharmaceutical Pollutant Arush Sharma <i>Baddi University of Emerging Sciences and Technology (BUEST), Solan, India</i>
15:10-15:20	OL	Green synthesized AgNPs embellished on crumpled surface of thiazole modified g-C ₃ N ₄ : A heterocatalyst for the photodegradation of pharmaceutical effluent Itraconazole Ajay Kumar <i>School of Basic and Applied Sciences, Maharaja Agrasen University, Himachal Pradesh, India</i>
15:20-15:30	OL	RSC: Integrating Chemical Sciences Community and Beyond Aayushi Arora <i>Royal Society of Chemistry, India</i>
15:30-15:40	OL	Technical Development of boron doped carbon dots/ reduced graphene oxide solution gated field effect transistor for the detection of tumor marker Arun Kant Singh <i>CSIR-National Physical Laboratory, New Delhi, India</i>

Session 20 : Advanced Materials

Chairs: Sumit Sinha Ray, IIT Delhi, New Delhi, India &
Tridib K. Sinha, UPES, Dehradun, India

Venue: Hall-2

Time	Lecture	Title/Author
14:00-14:20	IL	Toward Sustainable Quaternary Hydrogels: Multithiol-Lignin Crosslinkers and Green Quaternization Approaches Kalpana Chauhan <i>Central University of Haryana, Mahendergarh, Mahendergarh, India</i>
14:20-14:40	IL	Electroactive polymer and carbon materials for bipolar/wireless actuation Bhavana Gupta <i>UPES, Dehradun, India</i>
14:40-15:00	IL	Synthesis & Application of the Azo-based Metallopolymers as Novel Electrocatalysts for Hydrogen Evolution Reaction Anasuya Bandyopadhyay <i>Indian Institute of Technology, Roorkee, India</i>
15:00-15:10	OL	Concentration Dependant Porosity of Torlon Membranes Obtained by Phase Inversion Method for Gas Separation Applications Kingshuk Kundu <i>DEBEL-DRDO, Bangalore, India</i>
15:10-15:20	OL	Molecular Insights into Polymer Membranes and Non-Stoichiometric Electrolytes Anurag Prakash Sunda <i>J. C. Bose University of Science and Technology, YMCA, Faridabad, India</i>
15:20-15:30	OL	Enhancing the surface integrity of additively manufactured Nickel-based alloy using novel polymer based viscoelastic abrasive finishing process Shanmuka Srinivas M. <i>Indian Institute of Technology, Tirupati, India</i>
15:30-15:40	OL	Keratin nanofibers scaffold as a potential candidate for tissue engineering application Keshaw Ram Aadil <i>Govt. Digvijay Autonomous PG College Rajnandgaon, Chhattisgarh, India</i>

Session 21 : Springer Student Oral Contest

Chairs: Anurag Kulshreshtha, IITR, Saharanpur, India &
Susheel Kalia, IMA, Dehradun, India

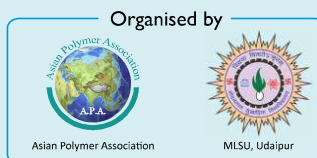
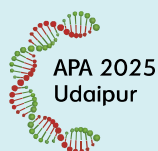
Venue: Hall-3

Time	Lecture	Title/Author
14:00-14:10	OL	Turning Agricultural Waste into Microplastic Adsorbents: A Path Toward Sustainable Water Purification Nishi Gandha <i>Indian Institute of Technology, Roorkee, India</i>
14:10-14:20	OL	Hydrogel Fabrication by Eco-Friendly Sono-Polymerization of Acrylamide with Dual-Function 2-Acrylamido-2-methyl-1-propane sulfonic acid Kuldeep Rajpurohit <i>Kishinchand Chellaram College, HSNL University, Mumbai, India</i>
14:20-14:30	OL	Assessment of bioengineered polyherbal formulation against Rheumatoid Arthritis " Traditional concept in a modern approach Anumita Dey <i>University of Calcutta, Kolkata, India</i>
14:30-14:40	OL	Development of Angiogenic and Osteoinductive Multivesicular Liposomes Loaded Bioink for Bone Regeneration Priyanka Dagar <i>Indian Institute of Technology, Mandi, India</i>
14:40-14:50	OL	Synthesis and Characterization of Disulfide-Containing Poly(urethane-urea) for Self-Healing Applications Kabita Sarkar <i>Indian Institute of Technology Delhi, New Delhi, India</i>
14:50-15:00	OL	Tuning of electromagnetic interference shielding properties by oxidant variation in polyaniline Ruchika Sharma <i>Thapar Institute of Engineering and Technology, Patiala, India</i>
15:00-15:10	OL	Smartly passivated Nanocarbon-Enforced Poly(N-isopropylacrylamide) Hydrogel for Effective Healing of Damaged Skeletal Muscle Niranjan Chatterjee <i>Indian Institute of Technology, Kanpur, India</i>
15:10-15:20	OL	Multifunctional Hydrogels: Pioneering Soft, Conductive Materials for Wearable Electronics Areeba Khayal <i>Aligarh Muslim University, Aligarh, India</i>
15:20-15:30	OL	Electrospun nanofiber derived from X-ray film functionalized with ZnO nanoparticle and crystalline nano cellulose: converting biomedical waste into high performance antibacterial membrane Satyabrata Sahoo <i>Ravenshaw University, Cuttack, India</i>

Session 22

15:30-17:30 | Poster Presentation & Tea

Coordinators: Chetna Verma, IIT Delhi, New Delhi, India & Manali Somani, Indian Institute of Packaging, New Delhi, India



Day-3 | 15th Oct, 2025 | Programme

Session 23 : Advanced Materials

Chairs: Nitin Kumar, MLSU, Udaipur, India & Siddharth Sirohi, BCAS, Dwarka, New Delhi, India

Venue: Main Hall

Time	Lecture	Title/Author
09:00-09:20	IL	Isolation and characterization of dyes molecules from the plant parts, procedure optimization and up gradation of the traditional system of natural dyeing using the natural and metallic mordant's - A sustainable and green approach Maresh Chandra Purohit <i>H.N.B. Garhwal Central University, BGR Campus, Pauri, India</i>
09:20-09:40	IL	Metal Ion Cross-Linked Mechanically Robust and Stretchable Polymer Hydrogels for Strain sensing and Flexible Energy Storage Devices Rajat Kumar Das <i>Indian Institute of Technology, Kharagpur, India</i>
09:40-09:50	OL	Development of High-Performance Thermally Conductive Epoxy Adhesives Using Conducting Polymers and CNTs Prakash Chandra <i>Bundelkhand University, Jhansi, India</i>
09:50-10:00	OL	Study of Polyaniline Embedded Transition Metal Substituted Strontium Titanate for Energy Applications Tithi Sen <i>Defence Materials and Stores Research and Development Establishment (DMSRDE), DRDO, Kanpur, India</i>
10:00-10:10	OL	Cellulose acetate, a source from discarded cigarette butts for the development of mixed matrix loose nanofiltration membranes for selective separation Moucham Borpatra Gohain <i>CSIR-North East Institute of Science and Technology, Jorhat, Jorhat, India</i>
10:10-10:20	OL	Sustainable Packaging via Electrospun Films Functionalized with Nitrogen-Doped Carbon Dots Ankit Tyagi <i>Indian Institute of Technology, Jammu, India</i>

Session 24 : Bioactive Materials

*Chairs: Shikha Agarwal, MLSU, Udaipur, India &
Amit Kumar Jaiswal, VIT, Vellore, India*

Venue: Hall-1

Time	Lecture	Title/Author
09:00-09:20	IL	Multifunctional Chitosan- α -Azo Schiff Bases with Photoresponsive and Antimicrobial Properties Swapnil Laxman Sonawane <i>Netaji Subhas University of Technology (NSUT), New Delhi, India</i>
09:20-09:40	IL	Advancement in Environmental and Health Monitoring: Customization of Organic-Doped Polyethyleneimines for Improved Durability and Performance Nilanjan Dey <i>Birla Institute of Technology and Science Pilani, Hyderabad, India</i>
09:40-09:50	OL	Synthesis of Isoxazole-isoxazoline Derivatives of Eugenol as Potential Inhibitors of VEGFR2 Poonam Khandelwal <i>Mohanlal Sukhadia University, Udaipur, India</i>
09:50-10:00	OL	Halloysite nanoclay incorporated gelatin electrospun fibre for bio-separations: synthesis, characterization and biological studies Ashwini Wali <i>MS Ramaiah Institute of Technology, Bangalore, India</i>
10:00-10:10	OL	Analogues of 6-Arylviny-1,2,4-trioxanes as potential antimalarial leads Dinesh Kumar Yadav <i>Mohanlal Sukhadia University, Udaipur, India</i>
10:10-10:20	OL	Synthesis, Characterization and Evaluation of Biological Activities of Azines based Schiff Bases and their Sn(II) Complexes Kiran Meena <i>Mohanlal Sukhadia University, Udaipur, India</i>

Session 25 : Sustainable Materials

*Chairs: Saurabh Singh, MLVG, Bhilwara, India &
Shikha Wadhwa, UPES, Dehradun, India*

Venue: Hall-2

Time	Lecture	Title/Author
09:00-09:20	IL	Hydrogel-filled synthetic polymer membranes for water, energy and healthcare applications Ashok Kumar Pandey <i>Principal Sci-Advisor and Chairman R&D cell, HSNC Univ., Mumbai, India</i>
09:20-09:40	IL	Role of Plant-Based Polymers in Sustainable and Eco-Conscious Smart Packaging Dakuri Ramakanth <i>Indian Institute of Technology, Roorkee, India</i>
09:40-09:50	OL	Xerophytic to Bioplastic: Development and Characterization of Bioplastic from Opuntia ficus pulp Bhagyashri S. Watve <i>Walchand College of Engineering, Sangli, India</i>
09:50-10:00	OL	Transforming Lignin into Polymer Film with Improved Physicochemical Properties via Itaconic Acid Modification and Polycaprolactone Grafting Ajit Singh <i>CSIR-NEIST, Jorhat, India</i>

10:00-10:10	OL	Self-powered Supramolecular Micropumps for On-chip Sensing Debabrata Patra <i>Institute of Nano Science and Technology, Mohali, India</i>
10:10-10:20	OL	Flame retardant PP bio composites filled with ATH and reinforced with surface modified sisal fiber (SF): Investigation of the mechanical, thermal, morphological and flammability properties of thermoplastic polymer PP/ATH bio-composites Malaya Ranjan Parida <i>CIPET:SARP-LARPM, Bhubaneswar, India</i>

Session 26 : Smart Materials

Chairs: Sumit Murab, IIT Mandi, India &
Vikas V. Gite, NMU, Jalgaon, India

Venue: Hall-3

Time	Lecture	Title/Author
09:00-09:20	IL	Exploring Processing Parameters for the Preparation of Polyaniline Incorporated Soy Protein Isolate Film Rakesh Kumar <i>Central University of South Bihar, Gaya, India</i>
09:20-09:40	IL	Synthesis and Study of Conjugated Polymers via a Green Indophenine Polymerization Strategy Arunkumar Patel <i>The Maharaja Sayajirao University of Baroda, Vadodara, India</i>
09:40-09:50	OL	Strength and Load-Bearing Studies of Diamond Reinforced Zinc Composite Coatings for Heat Sink Applications: Approaches from Experiments and Genetic Algorithm-Particle Swarm Optimization Ashish Goyal <i>Manipal University Jaipur, Jaipur, India</i>
09:50-10:00	OL	Catalytic Synthesis of Quinoxalines Using THS and their In Silico Biological Activity Against α -Amylase and α -Glucosidase Lokesh Kumar Agarwal <i>Mohanlal Sukhadia University, Udaipur, India</i>
10:00-10:10	OL	Self-healing Behaviour of Sodium Ionomer/Styrene-Isoprene-Styrene Blend Materials by Ballistic Test Shilpi Tiwari <i>DMSRDE, Kanpur, India</i>

10:20 -10:40 | Tea Break

Session 27 : Green Chemistry

Chairs: Dinesh K. Yadav, MLSU, India &
Mahesh Chandra Purohit, H.N.B.G.C.U., Pauri, India

Venue: Hall-1

Time	Lecture	Title/Author
10:40-11:00	IL	Biodegradable Polymer Nanocomposites for Self-Powered Smart Systems: A Sustainable Leap in Energy Harvesting and Biomechanical Sensing Kalappa Prashantha Adichunchanagiri University, B. G. Nagar, India
11:00-11:10	OL	Biogenic Zinc Oxide Nanoparticles from Moringa oleifera: A Promising Green Antibacterial Strategy Giriraj Tailor Mewar University, Gangrar, Chittorgarh, India
11:10-11:20	OL	Optimizing Sustainable Nanomaterials: The Transformative Role of AI and ML in Green Nanotechnology Avinash Marwal Mohanlal Sukhadia University, Udaipur, India
11:20-11:30	OL	Green synthesis of metallic nanoparticles using plant extract Laxmi Narain Jatolia S. D. Govt. College, Beawar Raj. Beawar (Raj.), India
11:30-11:40	OL	Biogenic Synthesis of Nano Fertilizers and Their Foliar Studies on Legume Crops Production Saurabh Singh M.L.V. Government College, Bhilwara, India
11:40-11:50	OL	Graphitic Carbon Nitride Based Materials and Their Applications in Organic Synthesis Shikha Agarwal Mohanlal Sukhadia University, Udaipur, India
11:50-12:00	OL	Anti-inflammatory and analgesic activity of ethanolic extract and different fractions of Eulophia nuda Lindl Neetu Kumari Mohanlal Sukhadia University, Udaipur, India

Session 28 : Advanced Materials

Chairs: Kalpana Chauhan, CUH, Mahendragarh, India &
Rakesh K. Sharma, MSU, Vadodara, India

Venue: Hall-2

Time	Lecture	Title/Author
10:40-11:00	IL	Sustainable Waste Management via Recycled Cigarette Butts for Advanced Tactile Sensors: Electro Spun PVDF (Poly Vinylidene Fluoride)/Cellulose Acetate/MWCNT (Multi Walled Carbon Nanotubes) Nanofiber Composites Alka Gupta CSJM University, Kanpur, India
11:00-11:10	OL	Development and Characterization of a Green Superabsorbent Polymer Based on Diatomaceous Earth Arpit Sand Manav Rachna University, Faridabad, India
11:10-11:20	OL	Development of fire-resistant Safe sSBR Based Green Compounds utilizing LPCA and HPCA Nitin Kumar Mohanlal Sukhadia University, Udaipur, India
11:20-11:30	OL	Environmentally Benign Polymers as Effective Corrosion Mitigators Ambrish Singh Nagaland University, Lumami, India

11:30-11:40	OL	Understanding chemical composition of hydrogel additives on Portland cement chemistry Sabrina Afzal Shaikh <i>Kishinchand Chellaram College, HSNC University, Mumbai, India</i>
11:40-11:50	OL	Preparation and Properties of Carbon Fiber-Reinforced Epoxy-Aluminum alloy laminates M. Balasubramanian <i>Indian Institute of Technology Madras, Chennai, India</i>
11:50-12:00	OL	Synthesis of ZnMnO ₂ Nanofleets via Surface Modification Using Citric Acid and Polyvinyl Alcohol: Enhanced Photocatalytic, Photoelectrochemical, and Antimicrobial Performance under Visible Light Irradiation Karthiga Rajendaran <i>Madurai Kamaraj University, Madurai, India</i>

Session 29 : Miscellaneous Applications

Chairs: Chetna Ameta, MLSU, Udaipur, India &
P. K. Baroliya, MLSU, Udaipur, India

Venue: Hall-3

Time	Lecture	Title/Author
10:40-11:00	IL	Physiochemical and antimicrobial properties of chitosan/gelatin/Ag@TiO ₂ nanocomposites for food packaging applications Santosh Kumar <i>Harcourt Butler Technical University, Kanpur, India</i>
11:00-11:10	OL	Electrochemical Decarboxylative Ketone Synthesis from NHPI Esters and Vinyl Azides Bhawana Jat <i>Mohanlal Sukhadia University, Udaipur, India</i>
11:10-11:20	OL	Effective Research Publication in Wiley Polymer Portfolio and the Usage of Artificial Intelligence Anurag Mukherjee <i>Wiley, APAC, India</i>
11:20-11:30	OL	Study of curing kinetics of hydrazide -substitute phthalonitrile (HYZ-PN) resin through model-based and model-free kinetic methods Jeetendra Kumar <i>Banshiwal, DMSRDE, Kanpur, India</i>
11:30-11:40	OL	Service Life Estimation of Weathered 3D-Printed Stereolithography Photocured Resin Parts Raghu Raja Pandiyan Kuppusamy <i>National Institute of Technology, Warangal, India</i>
11:40-11:50	OL	Electrochemical Post-Ugi Cyclization Enabled by In-cell Generated Hypervalent Iodine(III) Intermediates for the Synthesis of Imidazolidin-4-one and Oxazolidin-4-one Dinesh Suwalka <i>Mohanlal Sukhadia University, Udaipur, India</i>
11:50-12:00	OL	Comparative Analysis of Biochar Derived from Coconut Shell and Rice Husk for Soil Amendment and Carbon Sequestration Ashish Sharma <i>S. N. K. P. Govt.College, Jaipur, India</i>

12:00-13:00 | Valedictory Session (Main Hall)

Time: 12:00-12:05

Welcome Address

Manohar V. Badiger, *Organising Chair*

Time: 12:05-12:10

Conference Address

Jyoti Chaudhary, *Conference Chair*

Time: 12:10-12:15

APA Address

Bhuvanesh Gupta, *Conference Patron*

Time: 12:15-12:20

Theme Address

Anup K. Ghosh, *Conference Chair*

Time: 12:20-12:25

Special Address

Sanjay K Nayak, *Conference Chair*

Chief Guest Address

Mukul Jain, *(VP-Works), JK Tyre & Industries Ltd., Kankroli*

Award ceremony

Vote of Thanks

Sushil Kalia, *Organising Secretary*

13:00 -14:00 | Lunch

14:00 | CONFERENCE ENDS