Central Institute of Petrochemicals Engineering & Technology
Kochi

Supported by

International Conference on Biopolymers & Green Composites, (BPGC- 2024)

18th & 19th October 2024 at CIPET:IPT- KOCHI

Programme Schedule

Day 1 : 18th October, 2024		
08.30 am onwards	Registration	
09.15 am - 10.15 am	**Inauguration**	**Chief Guest: Prof. (Dr.) M Junaid Bushiri,** Vice-Chancellor, CUSAT
10.15 am - 10.30 am	***Tea Break***	
Plenary Session I **Chair Person: Dr. T. O. Varghese**		
10.30 am - 11.05 am	**Translating a New Biopolymeric Resorbable 3D Scaffold for Bone Tissue Engineering from Lab to Clinic** ***Prof. (Dr.) Jayesh Bellare*** Indian Institute of Technology Bombay	
11.05 am - 11.40 am	**Biopolymer as Matrix and Film Material and Processing Studies for Packaging Application** ***Prof. (Dr.) Mervyn K. Kanny*** Durban Institute of Technology, Durban, South Africa	
11.40 am - 12.15 pm	**Biomaterials Breakthroughs: Expanding Applications in Science and Technology** ***Prof. (Dr.) Balasubramanian K.*** Defence Institute of Advanced Technology, Pune	
Keynote Lectures I **Chair Person : Prof. (Dr.) Thomas Kurian**		
12.15 pm - 12.40 pm	**Designing Functional Polymers for Stimuli-Induced Higher-Order Reversible Self-Assembly** ***Prof. (Dr.) Raja Shanmugam*** IISER - Kolkata	
12.40 pm - 01.05 pm	**π - Conjugated Polymers for Energy Applications** ***Prof. (Dr.) Asha S. K.***	

	CSIR-NCL, Pune
01.05 pm - 02.00 pm	***Lunch Break***
Chair Person: Prof. (Dr.) K. E. George	**Invited Lectures I**
02.00 pm - 02.20 pm	**Hybrid Modification of Epoxy Thermoset to Enhance the Impact Strength** ***Dr. Aneesa P.*** M. G. University, Kottayam
02.20 pm - 02.40 pm	**PE Free Packaging Boards with Sustainable Coatings for Disposable Food/ Beverage Packaging & Service-Ware Products** ***Mr. Abhijith Shah*** Director, Greendot Biopak Pvt. Ltd., Ahmedabad
02.40 pm - 03.00 pm	**Innovations in Biopolymer Coatings: Process Efficiency, Functional Advantages and Microplastic reduction** ***Mr. Nagaraj K.*** Natur Tec. India Ltd., Chennai
03.00 pm - 03.20 pm	**Polymer Coatings for Anticorrosion Application: How Nature Inspires Your Ideas** ***Dr. Susan Zacharia*** Yung Hsin Time Technoplast, Taiwan
03.20 pm - 03.30 pm	***Tea Break***
03.30 pm - 05.30 pm	**Oral Presentations I *(Contributory papers)*** **Chair Person : Dr. Leny Mathew** **Annexure I**

Day 2 : 19th October, 2024	
Plenary Session II **Chair Person: Prof. (Dr.) Alex James**	
10.15 am - 10.50 am	**Microwave and RF Plasma for Waste to Resources such as Carbon Nanomaterials** ***Prof. (Dr.) Mohan Jacob*** James Cook University, Australia
10. 50 am - 11.05 am	***Tea Break***
11.05 am - 11.40 am	**Nanostructured Polysaccharides based Bio-Materials for Water Purification** ***Prof. (Dr.) Sabu Thomas*** M. G. University, Kottayam
Keynote Lectures II **Chair Person: Prof. (Dr.) Prasanth Raghavan**	
11.40 am - 12.05 pm	**Applications of Alginates in Modern Healthcare** ***Dr. Roy Joseph*** SCTIMST, Thiruvananthapuram
12.05 pm - 12.30 pm	**Cellulose Nanocrystals as Novel Sustainable Nanomaterials for Functional Nanocomposites** ***Dr. Paramita Das*** IISER, Bhopal
12.30 pm - 12:55 pm	**Superhydrophobic Materials: Inspired by Nature** ***Prof. (Dr.) Sujith Athiyanathil*** NIT Calicut
12.55 pm - 01:20 pm	**Polymeric Nanotextiles in Healthcare** ***Dr. Deepthi Menon*** Amrita School of Nanosciences & Molecular Medicine, Kochi
01.20 pm - 02.00 pm	***Lunch Break***
Plenary III & Invited Lectures II **Chair Person: Prof. (Dr.) Neetha John**	
02.00 pm - 02.35 pm	**Biomass Liquefaction Processes Optimised for Generating Intermediate Products Suitable for Synthesising Polymer Composites**

	Prof. (Dr.) Jozeph T. Haponuik Gdansk University of Technology, Poland
02.35 pm - 02.55 pm	**Semi-IPN Coatings for Paper and Wood Based on Bio-Based Polyurethane (PU) and Bio-Degradable Polylactic Acid (PLA)** ***Dr. S. Anandakumar*** Anna University, Chennai
02.55 pm - 03.15 pm	**Sustainable Development of Biofilm Utilizing Ultrasonic-assisted Glycerol Organosolv process Derived Cellulose from Banana Pseudostem** ***Dr. K. N. Sheeba*** NIT, Trichy
03.15 pm - 03.35 pm	**Tailoring of Biomimetic Scaffolds for Tissue Engineering: 3D Bio-printing Techniques in Regenerative Medicine** ***Dr. Ravi Babu V.*** CSIR - CECRI, Karaikudi
03.35 pm - 03.55 pm	**End-of-Life Options of Biobased Plastic Materials and its Biocomposites** ***Dr. Sudhakar Muniyasamy*** CSIR - South Africa
03.55 pm - 04.05 pm	***Tea Break***
03.55 pm - 05.05 pm	Poster Presentations* **Annexure II**
04.05 pm - 05.05 pm	**Oral Presentations II *(Contributory papers)*** **Chair Person: Mrs. Sumy Sebastian** **Annexure I**
05.05 pm - 05.30 pm	**Valedictory Function**

**Poster displays should be set up at the venue by 5:00 PM on October 18, 2024*

Annexure I - Oral Presentations

Day 1 : 18th October, 2024		
OP 1	03.30 pm – 03.40 pm	**Barrier Properties and Biodegradability of Ethylene Vinyl Acetate/ Waste Pistachio Shell Cellulose Composite Films** ***Shana Jebin V. P.*** MES Mampad College, Calicut
OP 2	03.40 pm – 03.50 pm	**Photothermally responsive 3D-Printed Biodegradable Composite Scaffolds for Bone Tissue Engineering** ***Gurumoorthi Ramar*** Central Institute of Petrochemicals Engineering and Technology (CIPET)
OP 3	03.50 pm – 04.00 pm	**Engineering Properties of Modified Natural Rubber** ***Sujith Nadarajan*** Rubber Research Institute of India, Kottayam
OP 4	04.00 pm – 04.10 pm	**Nanoparticle-Reinforced Sodium Caseinate and Whey Protein Coatings for Sustainable Packaging Applications** ***Aswin S. Warrier*** CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum
OP 5	04.10 pm – 04.20 pm	**Nanoyarn Engineered Antimicrobial Indwelling Devices for Combating Bacterial Infections for a Prolonged Period** ***Irin Ann Varughese*** Amrita Vishwa Vidyapeetham, Kochi
OP 6	04.20 pm – 04.30 pm	**Carbon Quantum Dot Composites from Natural Fibers: A Sustainable Food Packaging Solution** ***Fathima C. S.*** Maharaja's College, Ernakulam
OP 7	04.30 pm – 04.40 pm	**Neurocompatible Polycaprolactone (PCL) and Polyvinylpyrrolidone (PVP) Patterned Blended Substrates for Peripheral Nerve Repair** ***Saranya S. S.*** Sree Chitra Tirunal Institute for Medical Sciences & Technology
OP 8	04.40 pm – 04.50 pm	**Influence of Germanium Oxide Nanoparticles on the Electrical Conductivity of Li-Ion Conducting NaCMC/PVA Nanocomposite Films** ***Seshan T N*** Sir M. Visvesvaraya Post Graduate Center, Mandya
OP 9	04.50 pm – 05.00 pm	**All-Gel Stretchable Supercapacitor with Wide Temperature Stability**

		Adith Varma R Chonnam National University, Republic of Korea
OP 10	05.00 pm – 05.10 pm	**Enhanced Water and Corrosion-Resistant Coatings using Self-Stabilized Styrene-Acrylic Copolymer Latex with Heteroatom Function** ***Abdul Malik Areekkadan*** CSIR-Indian Institute of Chemical Technology, Hyderabad
OP 11	05.10 pm – 05.20 pm	**Improved Mechanical Properties and Water Repellency of Kraft Paper by Coating with Bio-Based Material, Offers Robustness, Compostability and Mulching Potential** ***Abhay Shankar*** CSIR-Indian Institute of Chemical Technology, Hyderabad
OP 12	05.20 pm – 05.30 pm	**An Experimental Investigation on Mechanical Properties in Randomly Oriented Treated and Untreated Pineapple Leaf Fiber Reinforced Polyester Composites** ***Amoghavarsha*** P.E.S College of Engineering, Mandya
Day 2 : 19th October, 2024		
OP 13	4.05 pm – 4.15 pm	**Development Biodegradable Silk Fiber Films** ***Prashant M Prabhua*** Manipal Institute of Technology, Manipal
OP 14	4.15 pm – 4.25 pm	**Nitrone functionalized green silica; polymer grafting and reinforcing potential in styrene-butadiene rubber compound** ***Lukkumanul Hakkim N.*** Indian Institute of Technology Delhi, New Delhi
OP 15	4.25 pm – 4.35 pm	**Reaction Flask to Industry: A Greener Route to Synthesize Carbon Dioxide Epoxide Copolymers** ***Jobi K V*** St Joseph's College, Moolamattom
OP 16	4.35 pm – 4.45 pm	**A Sustainable Approach to Antioxidants: Lignin Nanoparticles** ***Drishya Murukesana*** Cochin University of Science and Technology, Kochi
OP 17	4.45 pm – 4.55 pm	**Biodegradable Solutions: Quest for Eco-friendly Packaging** ***Tania Francis*** St. Josephs' College, Devagiri, Calicut

Annexure II - Poster Presentations

Day 2 : 19th October, 2024	
PP 1	**Study on Potential of PLA/Cellulose Scaffolds in Tissue Regeneration Application** ***Nidhi C. A.*** Sri Jayachamarajendra College of Engineering
PP 2	**Wheat Starch Biopolymer Film Reinforced with Cellulose Nanofiber from Banana** ***K.V. Athira*** National Institute of Technology, Calicut
PP 3	**A Study of Mechanical, Dynamic Mechanical and Thermal Properties of Rice Husk Ash and Nanosilica Filled Epoxy Composites** ***Ayswarya E. P.*** Federal Institute of Science and Technology, Angamaly
PP 4	**Extraction and Characterization of Cellulose Nanofibers and Papers from Heliconia Psittacorum Leaf Waste** ***Sharon Paul*** Sacred Heart College, Thevara
PP 5	**Extraction and Characterization of Cellulose Nanofibers from Salacca Zalacca Peels: Effect of Chlorine Free Treatment and Acid Hydrolysis** ***Akhil Krishnan*** Sacred Heart College, Thevara
PP 6	**Dielectric and Nonlinear Optical Properties of Regenerated Cellulose-Multiwalled Carbon Nanotube Composites** ***Sona Narayanan*** Federal Institute of Science and Technology, Angamaly
PP 7	**Biopolymers and Biomaterials** ***N. Rama Jyothi*** Sri Padmavathi Mahila Visvavidyalayam, Tirupati
PP 8	**Lignin Nanoparticles as a Sustainable Development in Packaging Films** ***Aisha N. S.*** Cochin University of Science and Technology, Kochi
PP 9	**Mechanical, Barrier, Antibacterial and Biodegradable Properties of Carrageenan/Natamycin/Graphene Hybrid Bio Nanocomposite Film for Active Antimicrobial Food Packaging Applications**

	M. Vishnuvarthanan Kalasalingam Academy of Research and Education, Srivilliputtur
PP 10	**ZnO Nanofibers for Energy Applications – A Review** ***Niranjan N. Prabhu*** Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal
PP 11	**Polymer Nanocomposite Films Based on Gallium Oxide Nanoparticles Reinforced in Lithium Bromide Salt-Doped Methyl Cellulose and Poly(Vinyl Alcohol) , Intended for Structural and Optoelectrical Applications** ***Arun D. V.*** Sir M. Visvesvaraya Post Graduate Center, Mandya
PP 12	**Synthesis, Thermal, and Dielectric Studies of PANI Grafted Biopolymers** ***Roshna M.*** St. Joseph's College, Calicut
PP 13	**Mycelium based Corn Silk Fiber Reinforced Biocomposite : The Future Sustainable Alternative Material** ***Nirupama T.*** Central Institute of Petrochemicals Engineering & Technology - IPT Kochi
PP 14	**Fabrication of Flexible, Hydrophobic and UV-Resistant Hybrid Nanocomposite of Polypropylene via Latex Technology for Green EMI Shielding** ***Arjun Somarajan*** Indian Institute of Space Science and Technology, Thiruvananthapuram
PP 15	**Enhancing Crop Yield and Phytopathogen Protection: Polymer Nanofiber Seed Coating with Active Ingredients and Beneficial Bio-Fungicide** ***Nonu Davis Chakkalakkal*** St. Joseph's College, Irinjalakuda
PP 16	**Porous Polymer Nanocomposite Membrane for Drug Delivery** ***Chirashma Valsana*** St. Joseph's College, Irinjalakuda
PP 17	**Fabrication of Nanoyarn Reinforced Shape Memory Drug Delivery System for Improved Recovery After Spinal Cord Injury** ***Sumi V. S.*** Amrita Vishwa Vidyapeetham, Kochi
PP 18	**Ulvan-PLA-Peppermint Oil: A Sustainable Solution for Food Packaging** ***Jobitha Jacob*** International Centre for Technological Innovations, Alappuzha
PP 19	**ROS-Responsive Camptothecin-Linked Thioketal Drug Delivery System Based On Ring-Closing Polymerization** **Jacob Mathew** National Taiwan University of Science and Technology, Taiwan
PP 20	**Antibacterial Property Enhancement by the Incorporation of Honey into PVA-Chitosan Electrospun Nanofibers** ***Sreelakshmi K.*** Central Institute of Petrochemicals Engineering & Technology (CIPET)-IPT, Kochi

PP 21	**Eco-Conscious Innovation for Single Use Cutlery: Production Of Biodegradable Cutleries from Starch Extracted from Jackfruit Seeds** ***Aiswarya S., Devika K., Sneha Frijo.*** Central Institute of Petrochemicals Engineering & Technology (CIPET)-IPT, Kochi
PP 22	**Carrageenan-Based Biopolymer Films with ZnO and CuO Nanoparticle for Antibacterial and Antifungal Applications** ***Reena Nair*** National Institute of Technology Calicut
PP 23	**Incorporation of Green-Synthesized TiO2 Nanoparticles into a Fluorescent Polymer for Biosensing Applications** ***Stephen Jose*** Central Institute of Petrochemicals Engineering and Technology (CIPET), Kochi
PP 24	**Development of Carrageenan Based Food Packaging Films and to Investigate the Effect of Plasticizers (Glycerol and Sorbitol) Incorporated at Different Concentrations** ***Ghanasyam D.*** Central Institute of Petrochemicals Engineering and Technology, Kochi
PP 25	**Photocatalytic Properties of Zinc Oxide Incorporated ABS/ MPU Nanocomposite Porous Membrane for Waste Water Treatment** ***Husna Fathima*** National Institute of Technology, Calicut
PP 26	**Biological Implications of Novel Mono and Di Substituted Hydrazones** ***M. Sooraj*** Cochin University of Science and Technology, Kochi
PP 27	**Synthesis and Characterization of PLA/Ag Nanocomposite Film for Smart Packaging Application** ***Aneetta Thomas, Archana E V, Yadhav Dinesh K*** Central Institute of Petrochemicals Engineering and Technology (CIPET): IPT - Kochi
PP 28	**Extraction and Characterization of Cellulose Nanofiber From Arecanut Leaf Sheath** ***Varnya R.*** Cochin University of Science and Technology, Kochi
PP 29	**Development and Characterization of Chitosan Microsphere Embedded PVA/ Gelatin Hydrogels for Wound Healing Applications** ***Bhagyasree R. K.*** Central Institute of Petrochemicals Engineering and Technology (CIPET): IPT - Kochi
PP 30	**Hydrophobic Acrylonitrile Butadiene Styrene (ABS)/ Polyurethane (PU) Electrospun Membrane for Oil-Water Separation** ***Shabeer Ujampady*** National Institute of Technology, Calicut
PP 31	**Microencapsulation of Citronella Oil by Melamine Formaldehyde Resin for Textile Applications** ***Resa M.*** Central Institute of Petrochemicals Engineering and Technology (CIPET): IPT – Kochi

PP 32	**A Review on Modification of Cashew Nut Shell Liquid for Synthesis of High Potential Polyurethanes** ***Parmod Kumar*** National Institute of Technology, Calicut
PP 33	**Chitosan-Lignin Biocomposite for Sustainable Packaging** ***Farsana M.*** Cochin University of Science Technology, Kochi
PP 34	**Silica-Gold Nanotheranostic System for Targeted Cancer Therapy** ***Aadithya Salbi*** Cochin University of Science and Technology, Kochi
PP 35	**Nano Chitosan from Crassostrea Madrasensis Oyster Shell Waste as a Green Toughener for Unsaturated Polyester Resin** ***Jeemol P. A.*** MES Mampad College, Mampad
PP 36	**Sustainable Carbon Nanodots from Seaweed: Synthesis, Properties, and Staining Applications** ***Arathi Kollath*** Cochin University of Science and Technology, Kochi
PP 37	**Environmentally Stable Conjugated Polymer Nanoparticles for Targeted Detection of Escherichia coli Structures** ***Selvi K.*** Central Institute of Petrochemicals Engineering and Technology (CIPET): IPT - Kochi
PP 38	**Moving Towards Sustainability; Recycling of LLDPE Milk Packets** ***Muhammed Shamil, Ajay Krishnan, Fathima Shifna C. K.*** Central Institute of Petrochemicals Engineering and Technology (CIPET): IPT - Kochi
PP 39	**Investigating the Biosorbent Nature of Egg Shell Powder Reinforced Bio-Composite in Absorption of Cobalt** ***Aiswarya B., Aleena N. Sibi, Aswathi Ashokan*** Central Institute of Petrochemicals Engineering and Technology (CIPET): IPT - Kochi
PP 40	**Sustainable Architectural Coatings: A Review of Eco-Friendly Formulations, Performance, and Environmental Impact** ***Noorulhuda C.*** Central Institute of Petrochemicals Engineering and Technology (CIPET): IPT - Kochi