



National Workshop on **MICROPLASTICS RESEARCH**

Networking & Collaboration

March 1-2, 2024

IITM Research Park, Chennai
Ramanujan Hall (EG-11)

Experts Lecture &
Panel Discussions

Program Highlights

Mar 1, 2024

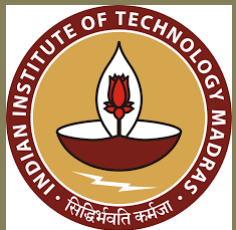
Inaugural Function 9 AM
Morning 9.30 AM – 12. 30 PM: Measurement Techniques- the state of art
Afternoon 2.00 – 5.00 PM: Environmental Monitoring/MP distribution

Mar 2, 2024

Morning 9 AM – 12. 30 PM: Monitoring & Treatment of technologies
Afternoon 2.00 – 5.00 PM: Toxicological Aspects of Microplastics

Our Sponsors





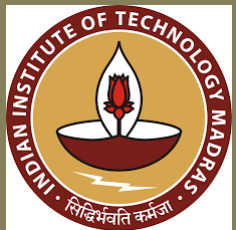
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NATIONAL WORKSHOP ON MICROPLASTICS



March 1, 2024 (Friday)

9.00-9.30	Inaugural Function	IIT & Frontier Lab
Technical Sessions		
Time	Session 1: Microplastics Measurements: the-state-of-the art (Chair: Prof. E. V. Ramasamy)	Speakers
9.30-9.45	Identification of Microplastic Using FT-IR Microscopy	Dr Dilip Raut, Thermo Fisher Scientific
9.45 – 10.00	Infrared Spectroscopy: Unlocking microplastics secrets'	Ms Sampada Khopkar, Shimadzu India pvt ltd
10.00-10.15	Rapid & Automated characterization of microplastics using Laser Direct Infrared Imaging (LDIR)	Gaurav Kapadnis, Agilent Technologies
10.15-10.30	FTIR Microscopy Imaging: A king in Microplastics Analysis	Dr Vijay Veer, Bruker India
10.30 – 11.00	Tea Break- Sponsored by Shimadzu Analytical India	
11.00 – 11.15	Mass based analysis of microplastics by Pyrolysis-GCMS & Splitless Sampler for ng level analysis	Dr Sathrugnan Karthikeyan, Frontier Lab
11.15 – 11.30	Development of novel and efficient extraction method for microplastics from marine macro algae: pollution vector potential and trophic transfer analysis	Midhun Nair, NIO, Regional Center, Mumbai
11.30 – 11.45	Microplastics in Delhi-NCR: Understanding the Urban Environmental Contamination	Deepika Sharma, JNU, New Delhi
11.45 – 12.30	Panel Discussion: MP Analysis: Current challenges and future needs	Prof E.V Ramasamy (Chair), Dr Ichi Watanabe, Dr Vijay Veer, Ms Sampada,
12.30 – 14.00	Networking Lunch – supported By Thermo Fisher Scientific	



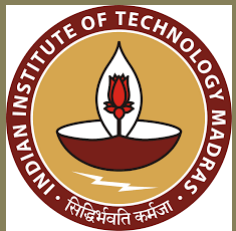
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March 1, 2024 (Friday) Session 2: Environmental Monitoring – Sampling and sample preparation

Time	Session (Chair: Prof Gopala Krishna)	Speaker
14.00 – 14.20	Recent development and challenges in detection and monitoring of microplastics in different environmental matrices	Dr Veerasingam, Qatar University
14.20 – 14.40	An assessment of microplastics in the mangrove ecosystems of southwest Karnataka	Dr Anish Kumar Warriar, MIT, Manipal
14.40 – 15.00	Microplastics monitoring in Cochin Estuary and Vembanadu lake , Kerala	Prof E. V. Ramasamy, MG University, Kerala
15.00 – 15.20	Monitoring of microplastics in riverine environment	Dr Purushothaman Partha, SRIM University
15.20 – 15.35	Microplastics in the Terrestrial Environment: Overview from Northeast India	Ms Ankita Saha, Tezpur University, Assam
15.35 – 15.50	Micro-plastic Pollutants in the River Sediments: Risk Assessment study of River Beas, Himachal Pradesh	Ms Aprajitha Mishra, IIFM, Bhopal
15.50 – 16.15	Afternoon Tea Break	
	Session Chair Prof. R. Vinu	
16.15 – 16.35	Micro/nano plastics in freshwater and marine systems of India: Monitoring and removal	Prof. Gopala Krishna Darbha, IISER, Kolkata
16.35 – 16.55	Assessment of Microplastics in Estuarine Environments and Their Impacts	Dr A Sundaramanickam, Annamalai University
16.55 – 17.15	Determination of Microplastics in Airborne Particulate (PM2.5/PM10)	Dr Ichi Watanabe, Frontier Laboratories, Japan
17.15 – 17.30	Exploring the extent of microplastic pollution in street dust of a semi-arid region of Rajasthan, India	Mr Prasanth Kumar, Central university of Rajasthan
17.30 - 17.45	Exploring the Nexus: Investigating how microplastics in municipal wastewater shape antibiotic resistance patterns	Ms Aparna Dutta, NIT, Roorkee
17.45 – 18.15	Panel Discussion – Environmental Monitoring-sampling and sample preparation	Prof R. Vinu, Prof Gopala Krishna, Dr Veerasingam, Prof. Purushothaman Partha, Dr Sundaramanickam



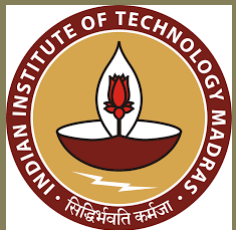
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March 2, 2024 (Saturday) Monitoring, Remediation & Toxicological aspects of microplastics

Time	Session 3: Monitoring and Remediation (Chair: Dr Anish Kumar Warriar, MIT, Manipal)	Speakers
9.00 – 9.20 AM	Remediation Strategies for Microplastics in Aqueous Environment: Challenges and Recent Developments	Dr Sujit Sen, NIT Rourkela
9.20 – 9.40 AM	Urban landfills and air quality: A comprehensive Analysis of Atmospheric Microplastics and Emissions during Waste storage and Waste fires	Prof Suja Devi Priya, CUSAT, Kochi
9.40 – 9.55 AM	Investigation on the efficiency of microplastic removal in a drinking water treatment plant of Southern India	Angel Jessieleena, IIT Madras
9.55 – 10.10 AM	Seasonal Influence on Microplastic Pollution in Groundwater at an Abandoned Landfill Site in Kerala, India: Risk Analysis and Mitigation Approaches	R. Amal, CUSAT, Kochi
10.10 – 10.25 AM	Release of Microplastics from Disposable Surgical Facemasks Under Varying Shear Forces and Its Toxic Effects On Freshwater Algae <i>Scenedesmus Obliquus</i>	Soupam Das, VIT, Vellore,
10.25 – 11.00 AM	Morning Coffee Break	
11.00 – 11.20 AM	Micro-nano-plastics behaviour in environmental and biological matrix	Prof. Chandrasekaran, CNBT, VIT, Vellore
11.20 – 11.40 AM	Microplastic toxicity in Drosophila as invivo model	Dr Sahabudeen S, SRM, Chennai
11.40 – 11.55 AM	Assessment of relation between microplastics (MPs) and selected <i>endocrine-disrupting chemicals (EDCs)</i> in sun dried Indian mackerel (<i>Rastrelliger kanagurta</i>): Influencing factors and implications of human health risk	Mr Martin Xavier, ICAR-CIFT, Kerala
11.55 – 12.10 PM	Assessing the Toxicological Effects of Microplastics in Mammalian Models	Diwakar Maurya, CSIR-NEERI, Nagpur
12.10 – 12.45 PM	Panel Discussion – Microplastics Mitigation measures	
12.45 – 14.00 PM	Networking Lunch – Sponsored by Bruker India	



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March 2, 2024 (Saturday) Session 4: Toxicological aspects of microplastics

Time	Session (Chair: Dr. S Karthikeyan, Frontier Lab, Singapore)	Speaker
14.00 – 14.20	Life in Plastic, is it fantastic? Health effects of Microplastics - Online	Prof. Malgert Barbro, University of Groningen, Netherlands
14.20 – 14.35	Adsorption of clarithromycin on polystyrene nano plastics surface and its combined adverse effect on serum albumin	Dr Utkal Laxmi Pani, VIT, Vellore
14.35 – 14.50	Isolation and characterization of microplastics from cosmetics and its effects on human skin cell line	Guria Saha, CNBT, VIT, Vellore
14.50 – 15.30	Group Discussion : Future Direction & Collaboration	
15.30 – 16.00	Afternoon Tea Break	
16.00 – 16.30	Validatory Function	