

For Immediate Release: July 25, 2024

PRESS-RELEASE

IIT (ISM) Dhanbad Hosts Keynote Lecture on Microplastics Under Mission LiFE Series

As part of its Centenary Celebrations and the ongoing “Mission LiFE Keynote Lecture Series [2025–26] – *Harnessing Innovation for Environmental Sustainability*,” the EIACP Programme Centre (RP) at the Department of Environmental Science & Engineering (ESE), IIT (ISM) Dhanbad, organized a keynote lecture-cum-interaction session today.

The lecture, held at the Seminar Hall of the Department of ESE, featured **Dr. Abhrajyoti Tarafdar**, Assistant Lecturer at Technological University Dublin and an alumnus of IIT (ISM) Dhanbad. He delivered a talk on “**Microplastics: Tracing the Invisible Hazard Across Ecosystems, Nutrition, and Healthcare.**”

The session began with a welcome address by **Prof. Alok Sinha**, HOD, Department of ESE and Coordinator, EIACP (PC-RP), who emphasized the rising threat of microplastics and the importance of collaborative research and innovation to address this global concern. He highlighted the need to understand how microplastics move from the environment into food systems and human health.

Dr. Avanika Chandra, Information Officer, EIACP (PC-RP), introduced Dr. Tarafdar and outlined his research in microbe–plastic interactions, pollutant biodegradation, and health risk assessment of emerging contaminants.

In his lecture, Dr. Tarafdar discussed the widespread presence of microplastics in the environment, food, and even medical systems. He shared his research on a plastic-degrading bacterium (*Bacillus siamensis ATKU1*) that can break down low-density polyethylene (LDPE), and spoke about a dye-based detection technique developed by his team to identify microplastics in soil and food. Notably, he revealed the detection of microplastics in intravenous (IV) fluid systems, raising new biomedical safety concerns.

The lecture drew enthusiastic participation from **65 attendees**, including faculty, researchers, and students, who engaged in a lively discussion on detection techniques, degradation methods, and the need for policy integration to manage microplastic pollution.

This event aligned with the goals of the **Mission LiFE (Lifestyle for Environment)** initiative, promoting sustainable living through science-driven action, public awareness, and systemic change. The session underscored how interdisciplinary research can inform better environmental and public health policies.

At the conclusion, **Prof. Alok Sinha** felicitated Dr. Tarafdar with a memento in appreciation of his insightful lecture.

The event was organized with the support of **Prof. Sukumar Mishra**, Director, IIT (ISM); **Prof. Dheeraj Kumar**, Deputy Director; and under the guidance of **Prof. Alok Sinha** and **Prof. Suresh Pandian E.**, Co-coordinator, EIACP (PC-RP). **Mr. Bishwajit Das**, Programme Officer, coordinated the session.

Prof. Rajni Singh
Dean (Corporate Communications)