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Departmental Seminar

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Seminar Title	: Measurement techniques, environmental monitoring, toxicology assessment and treatment technologies on the microplastic research
Speaker	: Sreeshma Gopal (Phd, Roll No. 522ch6007)
Supervisor	: Prof. Sujit Sen
Venue	: Old Seminar Hall, Department of Chemical Engineering
Date and Time	: 07 Mar 2024 (4:00 P.M.)
Abstract	: Microplastics (MPs) are a particular kind of emerging pollutant that have drawn increased interest recently. Research has revealed the presence of microplastics in food products as well as the air, soil, and water. It is unquestionably true that microplastics are entering our bodies on a daily basis. Current research is being conducted to enhance our comprehension of microplastics detection, distribution, and toxicological impacts. This information is crucial for federal agencies and policymakers to address the issue effectively and implement appropriate policies. The program featured a number of ongoing studies in the various fields of microplastic research, such as the toxicity of MPs to human health, the accumulation of MPs in different fish and coral species, the abundance of MPs in surface water, including lakes, rivers, ground water, and estuaries, case studies on MP contamination of the atmosphere, and the overall amount of soil contamination caused by MPs, which is still pending due to various difficulties in obtaining MPs from soil samples. A discussion was held to explore the problems and limits of the current state-of-the-art methods available for measuring MPs. Investigated a variety of matrices' sampling and sample preparation procedures. Additionally, the current state of toxicological evaluations of microplastics in both human and animal populations is also addressed. Additionally, it highlights research study efforts on mitigating microplastics pollution in several environmental compartments.