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SERIES 82

Dr. Ashok PANDEY

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Date and Time - March 29, 2023 (3:00 PM JST)

Venue - Zoom

Speaker - Dr. Ashok PANDEY

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Title - Microplastics and nanoplastics pollution: Impact on life and health hazards

Abstract - The pollution and health hazards caused by the microplastics (MPs) and nanoplastics (NPs) in the environment (freshwater, marine water and terrestrial ecosystems) have become serious concerns globally. Microplastics have been detected around the globe and have impacted seriously to biota and humans. In order to understand the possible risks, provide recommendations for future studies and develop technologies to manage the micro/nanoplastics in the environment, it is important to understand their sources, distribution and occurrence, interactions with other contaminants, interactions with biota and their sampling and detection methods. The term 'microplastic' was introduced in 2000; while initial studies focused on marine sources, the focus during 2010-2015 shifted on the estimation of MPs from freshwater and soil, impacts on environment, adsorption of co-pollutants, bioplastics as potential alternate and during 2015-2020, it has on the estimation of MPs from air, snow, ecotoxicity, impacts on health, fate and migration, policy development. The current trend is on atmospheric transport and impacts on air, micro-nanoplastics (MNPs), economy, feasible solutions.