
Departmental Seminar

Seminar Title	: Conversion of <i>Ixora coccinea</i> flower waste into activated biochar: a sustainable strategy for minimizing environmental pollution
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Venue	: BM Department Seminar Room
Date and Time	: 25 Nov 2024 (10.45)
Abstract	: Dried or decomposed flowers are considered garbage and therefore they are dumped into open sites or water bodies. In India, flower waste is one of the biggest sources of environmental pollution. Hence, alternative steps have been taken to transform flower waste into valuable compounds and construct a zero-waste strategy. <i>Ixora coccinea</i> is an evergreen and woody flowering plant, commonly found in Southeast Asia. In this study, <i>Ixora coccinea</i> flower waste was used for extracting bio-active pigment, and the leftover waste biomass after the extraction process was utilized in the slow pyrolysis process (at 300 o C temperature for 2 h time) for producing biochar. The physicochemical analysis of the biochar thus obtained was performed using RAMAN spectroscopy, Fourier transform infrared (FTIR) spectroscopy, X-ray diffraction (XRD), and scanning electron microscopy (SEM). It was further activated for the adsorption of environmental contaminants which will be beneficial in reducing environmental pollution. The adsorption kinetics study revealed the efficacy of the biochar in reducing the hazardous organic pollutants from aqueous solutions. Keywords: Adsorption, Biochar, Flower, Pollution, Waste ALL ARE CORDIALLY INVITED