

Student Internship Scheme – 2024
Cluster Innovation Centre

Project Title: Comprehensive Modelling and Mitigation of Pollution in the Yamuna River in Delhi: A Theoretical Approach

Student: Arpita Kesharwani, B.Tech.

Mentor: Prof. Shobha Bagai, Professor

Abstract:

Mathematics is a universal language understood all around the world, making it a powerful tool for solving both real-life problems and complex puzzles. Application of mathematics ranges from finance and budgeting to sports to making satellites. This study explores the application of mathematics through mathematical modelling and differential equation along with computational simulation and analysis. The project aims to develop a theoretical model to address the pollution level in Yamuna with the concepts learnt in classroom using two different approaches: the multi-compartmental pollution model and the Spatial-Temporal pollution model.