

CHAPTER 52

TECHNOLOGY  
CIVIL ENGINEERING

Doctoral Theses

478. MINOCHA (Vijay Kumar)  
**Modelling and Monitoring of Environmental Systems.**  
Supervisors : Prof. P. R. Bose and Dr. Prateek Sharma  
Th 15250

*Abstract*

Identifies suitable cost-efficient interventions such that the stress on environmental system remains within its carrying capacity. Modelling and monitoring of air quality, another subsystem of environmental system, has also been one of the key focus of this study.

*Contents*

1. Introduction. 2. Literature review. 3. Algorithm development for modelling of waste load allocation for river water quality management. 4. Algorithm for optimal allocation of treatment levels under uncertain hydraulic and environmental conditions. 5. Development of multiobjective model for ambient river water quality management. 6. Model development for disintegration ambient of air quality data using artificial neural network. 7. Model identification and forecasting of ambient air quality. 8. Summary, conclusion and scope of future works. Bibliography and appendixes.