

## **About the Book**

*The purpose of this book is to bring together and integrate the subject matter that deals with the water quality modeling, monitoring and assessment techniques, wastewater treatment technology and sociological approach in a single text. This book is divided into twenty chapters and is intended to be a comprehensive reference for students, professional and researchers working on various aspects of water environment technology. The book seeks its impact from the diverse nature of control revealing situations from different countries of Asia. The papers published in this book were selected from the 1<sup>st</sup> international forum on Asian water environment technology held in 2013 in New Delhi, India. They are a showcase of the water environment problems in Asia and the countermeasures to those problems. This book refers to water quality requirements emphasizing on the factors that affect the water environment. The treated wastewater as a resource of water is also referred to enlighten the reader on the important items of water reuse. Selection of the most effective and proper waste water treatment is actually the essential part of generating a new water resource as well as protecting the receiving water environment. Thus, the fundamental principles of wastewater treatment and monitoring are focused in this book. It is believed that this book will help the readers to deal with various water environment problems in Asian countries.*

### **Contents:**

- 1. Physico-chemical Treatment*
- 2. Sunlight-assisted photo-fenton process for removal of insecticide from agricultural wastewater*
- 3. Catalytic reduction of water contaminant*
- 4. Simulation of Nitrate removal in a batch flow electro coagulation-flotation process by response surface method*
- 5. Decolourization studies of a novel textile dye degrading bacterium*
- 6. Preliminary study of rapid enhanced effective micro-organisms*
- 7. Step-feed technology in SBR to enhance the treatment of landfill leachate*
- 8. Response surface optimization of phosphate removal from aqueous solution using a natural adsorbent*
- 9. Removal of pharmaceuticals from water using adsorption*
- 10. Hydrological regimes and Zooplankton ecology at temperate floodplains, Indonesia: preliminary study before the operation of the downstream barrage*