

## **About the Book**

*In the developing, pollution through solid waste, sludge from water and wastewater treatment plants and pollution of natural water resources have become one of the grave issues. The root cause is population explosion, industrialization, urbanization and other anthropogenic activities. The increase rate of solid waste has become a major challenge for sustainable development of the environment. Poor management of solid waste and sludge from water and wastewater treatment plants, may be the cause of health hazards and environmental problems. The book presents new methods and technologies to combat the aforementioned problems and focus on the importance of using the recycled product. The technologies related to waste and sludge treatment are economical, eco-friendly and bring economics returns, and can be applied to most of the developing countries where waste treatment technologies, viz. composting, anaerobic digestion, recycling of plastic and agricultural waste in construction can be used. The aim of the book is support everyone who is involved in academic, teaching, research related to solid waste management and water and wastewater treatment study in the leading academic and research organizations globally. This book will be prodigious value to upcoming researchers, scholars, scientists and professionals in environmental science and engineering fields and global local authorities and policy makers responsible for the management of solid waste and sludge, globally universities can develop new prospectuses on sustainable and eco-friendly waste and sludge management, which are relating to the book's theme. This can also be of great sources for deigning and operation of waste reuse and recycling programs.*

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- 1. Utilisation of recycled slaughterhouse wastes for vegetable cultivation in rural India*
- 2. Operation and maintenance of wash infrastructure in residential schools in tribal belt of Maharashtra: a case study*
- 3. Metal resistant bacteria in animal manure induces bacterial resistance to antibiotics: Their co-occurrence in compost, soil and water*
- 4. Artificial neural network model for prediction of methane fraction in landfill gas from pretreated waste in bioreactor landfills*
- 5. Effect of gasification zone length on the downdraft gasifier performance for high ash biomass*
- 6. Utilisation of natural waste in freeze- thaw affected soil*
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- 8. Use of gas turbine operated by municipal solid waste to obtain power and cooling assisted by vapour absorption refrigeration system.*
- 9. Environmental study on recycled polyethylene terephthalate bottle fiber reinforced concrete*

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12. *Sustainability of natural aggregates by utilizing CDW in concrete*
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14. *Biogas development in India: A sustainable energy for future*
15. *Study on the effect of load resting time on recycled brick aggregate cement concrete*
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17. *Terracotta membrane-based microbial fuel cell with algal biocathode*
18. *Upcycling textile waste towards green nanocomposites*
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