

CHAPTER 56

TECHNOLOGY
CIVIL ENGINEERING

Doctoral Theses

461. AMIT KUMAR
Assessment of Disaster Mitigation Through Retrofitting of Existing Buildings.
Supervisor : Prof. Pratima Rani Bose
Th 16425

Abstract

It is study for developing a tool for evaluating the feasibility of seismic disaster management projects through retrofitting of non-engineered buildings in developing countries. It also studies the understanding of the vulnerability of non-engineered buildings in earthquake prone areas of India, develops earthquake loss assessment methodology and dynamic scenario for damage of buildings and its reduction by using retrofitting techniques, modify existing model for earthquake induced deaths and injury, tool for policy makers or implementing agencies to assess the vulnerability and viability of various alternatives for disaster reduction and to provide technomanagerial dimensions to earthquake risk management.

Contents

1. Introduction. 2. State of art review and literature survey. 3. Strategy for earthquake mitigation strategies. 4. Earthquake damage and loss assessment. 5. Assessment of earthquake disaster mitigation. 6. Proposed methodology for cost benefit analysis of earthquake disaster mitigation. 7. Case study: Economic assessment of earthquake disaster mitigation. 8. Application of financial assessment model at regional level. 9. Conclusion and recommendations. Bibliography.

462. JAHNHAVI INAMDAR
Investigations on Solar Detoxification for Industrial Effluent treatment Systems.
Supervisor : Prof. S. K. Singh
Th 16424

Abstract

The treatment of industrial effluent has received world wide attention. Industries such as dairy, pulp & paper and textile give rise to high amount of water pollution. It makes sense therefore to investigate sustainable technology/Green technology for treatment of waste water, Industrial effluents under study are mainly from dairy, pulp & paper, textile industry, synthetic effluent containing methylene blue dye and domestic effluent are also investigated. Performance analysis of conventional treatment methods such as Dissolved Air Floatation, Activated Sludge Process has been carried out for industrial effluents.

Contents

1. Introduction. 2. Literature review. 3. Solar aided technologies. 4. Conventional treatment methods. 5. Materials and methods. 6. Results and discussions. 7. Kinetic model, design methodology and techno-economic analysis. 8. Concluding remarks. Bibliography and annexure.