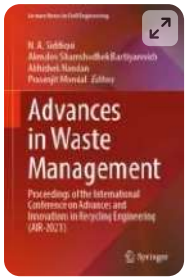
SPRINGER NATURE Link

Log in



Advances in Waste Management

Proceedings of the International Conference on Advances and Innovations in Recycling Engineering (AIR-2021)

| Conference proceedings | © 2023

Accessibility Information

Overview

Editors: N. A. Siddiqui, Akmalov Shamshodbek Baxtiyarovich, Abhishek Nandan, Prasenjit Mondal

Comprises select peer-reviewed proceedings of the international conference AIR2021
Covers latest research in solid waste management and sustainability
Discusses solutions for current industrial and environmental problems

Part of the book series: Lecture Notes in Civil Engineering (LNCE, volume 301)

Included in the following conference series:

AIR: International Conference on Advances and Innovations in Recycling Engineering

Conference proceedings info: AIR 2021.

7176 Accesses 3 Citations 45 Altmetric

This is a preview of subscription content, log in via an institution to check access.

Access this book

Log in via an institution

eBook EUR 154.07
Price includes VAT (India)

Available as EPUB and PDF
Read on any device
Instant download
Own it forever

Buy eBook

Softcover Book EUR 179.99

Hardcover Book EUR 179.99

Tax calculation will be finalised at checkout

Other ways to access

Licence this eBook for your library →

Institutional subscriptions →

About this book

This book comprises papers from the International Conference on Advances and Innovations in Recycling Engineering (AIR-2021). It highlights indispensable issues, challenges, and recommended solutions related to solid waste management and sustainability. The contents deal with recommended solutions and the gap between environmental laws related to recycling of waste and environment threat. Weighing the global economy loss via compromises on industrial growth versus environment provides another dimension to the study and press on the need for alternative practices. The impact on biodiversity conservation and natural resources pollutants is also highlighted. This book will be a useful guide for academics, researchers, and policymakers working in the fields of waste management.

Explore related subjects

Discover the latest articles, books and news in related subjects.

Disposal Technology and Management

Waste Management/Waste Technology

Sustainability

Solid Waste Management Systems and Environmental Impact

Search within this book

Search

Table of contents (18 papers)

Front Matter

Download chapter PDF

Pages i–x

Assessment of Groundwater Using Water Quality Index (WQI) at Saharanpur City, Uttar Pradesh (West), India

Abhishek Tyagi, Satayajeet Arya, Abhishek Nandan, Prasenjit Mondal
Pages 1–10

Safety Concerns and Consequences of Cloud Seeding Implications—A Systematic Review

Akshi Kunwar Singh, B. Abhijith, Leelakant Dewangan
Pages 11–27

Review of Study on Various Forest Fire Detection Techniques Using IoT and Sensor Networks

Akshi Kunwar Singh, Sinan Mohamed Rafeek, P. S. Harikrishnan, Irene Wilson
Pages 29–37

Strategies for Improving Municipal Solid Waste Management: A Comparative Assessment for Medium-Sized Cities

Ankur Chowdhary, Vibhor Goel, Hitesh Pandit
Pages 39–59

Microbial Interactions with Accessories—A Complete Analysis

B. C. Arundhathi, S. Prasanth, R. Sivaranjani, P. Abishek, A. Arumugam, Sudalai Subramani
Pages 61–79

Utilization of Waste Tires Toward Concrete Production and Decomposition of Tires by Pyrolysis

J. Karthikeyan, K. J. Rupesh, A. Arumugam, S. Sudalai
Pages 81–92

Comparative Analysis of Ultrafiltration for Produced Water from Oil and Gas Industry

Damini Rana, Sharika Bichinepally, Swati Kalra, Abhishek Nandan, Nihal A. Siddiqui
Pages 93-103

Investigation of Organic Carbon Contamination in Himalayan Rivers of Uttarakhand

Damini Rana, Neha Tiwari, Sudarshan S. Pal, S. P. Subudhi, Ankur Kansal, Namita Joshi
Pages 105-116

Role of Earthworm (*Eisenia fetida*) in Bioconversion of Kitchen Waste in a World of Shifting Climatic Condition

Neha Tiwari, Damini Rana, Namita Joshi
Pages 117-128

Recent Trends of Temporal and Spatial Variation in Waste Generation and Its Impacts on River Water Quality: Special Emphasis on Suswa and Song Rivers of Uttarakhand

S. P. Subudhi, Ankur Kansal, Tarumay Ghoshal, Naveen Singhal, Damini Rana
Pages 129-140

Sustainable Waste Management of Man-Made Dams and Reservoirs—A Review

Swati Kalra, Omprakash Madguni, Damini Rana
Pages 141-153

Storage System for Cooking in Hilly Areas: Solar Energy Storage System: Performance Analysis

Geetanjali Raghav, Piyush Kumar, Mohit Nagpal
Pages 155-165

A Fuzzy Logic Index-Based Assessment of the Water Quality of River Ganga at the Place of Its Origin (Devprayag) and the Downstream Town of Hrishikesh

D. M. Arjun, N. Pagadeeswar, Tabassum-Abbasi, Abhishek Nandan, Tasneem Abbasi, S. A. Abbasi
Pages 167-176

Eco-sensitive Campus Development Planning: A Case Study

Tabassum-Abbasi, K. B. Chari, Tasneem Abbasi, S. A. Abbasi
Pages 177-192

The Weed *Plantago* Major is an Effective Bioagent in Achieving Rapid Treatment of Sewage in SHEFROL® Bioreactor

Ashraf Zainabi, Arshad Hussain, Gulzar A. Ganie, Obeida Ashraf, Tabassum-Abbasi
Pages 193-200

Study on Coconut Shell Aggregate Behavior and the Use of Super Absorbent Polymer as an Internal Curing Agent

M. Tamilselvi, A. K. Dasarathy, S. Ponkumar Ilango, V. Karthika
Pages 201-210

Ecological and Economic Impacts on Biofuel Production

S. Sivarathnakumar, T. Adhitiyan, S. Gubendhiran, R. Praveenkumar
Pages 211-231

Current Developments in Bioremediation of Pesticides and Insecticides

S. Sivarathnakumar, R. Praveenkumar, J. Vinotharulraj, D. Gayathiri, A. Amirthavarshini
Pages 233-248

Back to top ↑

Other volumes

1. Recent Advances in Recycling Engineering
2. **Advances in Waste Management**

Editors and Affiliations

Centre of Excellence in Occupational Health, Safety, Fire and Environment, GD Goenka University, Sohna, India

N. A. Siddiqui

Department of Civil Engineering, Tashkent Institute of Irrigation and Agricultural, Tashkent, Uzbekistan

Akmalov Shamshodbek Baxtiyarovich

Department of Civil Engineering, University of Petroleum and Energy Studies, Dehradun, India

Abhishek Nandan

Centre of Excellence in Occupational Health, Safety, Fire and Environment,, GD Goenka University, Sohna, India

Prasenjit Mondal

About the editors

Dr. N. A. Siddiqui is currently working as Professor and Director at Centre of Excellence in Occupational Health, Safety, Fire and Environment, GD Goenka University, Gurgaon, India. He pursued his postgraduate degree in environmental science and doctorate in environmental biology. In addition, he also has an International Diploma in Occupational Health (IDip. NEBOSH, UK), Diploma in Industrial Safety, and Postgraduate Diploma in Environmental Impact Assessment. His research interests lie in environmental impact assessment. He specializes in the areas of safety management, occupational

health and safety, environmental pollution, environmental monitoring, and control techniques. He was also associated with Health, Safety and Environment Department of ICEM College, Muscat, Oman, which is affiliated to the University of Central Lancashire, UK. He has more than 170 research papers to his credit and has participated in several national and international conferences. He has authored 14 books and has guided more than 200 M. Tech. thesis and 21 Ph.D. theses.

Dr. Akmalov Shamshodbek Bakhtiyarovich is currently working as an Associate Professor and International Grants Coordinator, in the Hydrology and Hydrogeology Department at the Tashkent Institute of Irrigation and Agricultural Mechanisation Engineers National Research University, Uzbekistan. Dr. Bakhtiyarovich pursued his postgraduate and master's degree in environmental science and doctorate in hydraulics and engineering hydrology. Currently, he is providing Ds researches in technical science. In addition, he also working as an International Grants Coordinator in educational and research grants with many foreign universities, and as a national project coordinator in many research projects. His research interests lie in water resources, hydrology and GI. He specializes in the areas of water resources management, remote sensing and GIS in hydrology, environmental protection, climate change, water monitoring, and control techniques. He has over 80 research papers to his credit and has participated in several national and international conferences. He has authored 6 books and has guided 5 graduate, 1 master theses and 1 Ph.D. theses.

Dr. Abhishek Nandan is assistant professor at University of Petroleum and Energy Studies (UPES), Dehradun. His areas of interest are ambient and indoor air quality improvement techniques, drinking water and industrial effluent treatment strategies, conversion of waste to wealth and sustainable development techniques. He has worked in several internal and external funded projects as investigator. He has published more than 50 international journal papers and edited book chapters. His major patents includes Cancer Risk

Assessment tool using Python Language, Indoor air pollution control by application of IoT and Water Filtration System using bio-adsorbents.

Dr. Prasenjit Mondal is currently working as Associate Professor at Centre of Excellence inOccupational Health, Safety, Fire and Environment, GD Goenka University, Gurgaon, India. His areas of interest are drinking water and industrial effluent treatment strategies, conversion of waste to wealth, ambient and indoor air quality improvement techniques, industrial hazard and risk analysis. During his Ph.D. work, he developed a low budget and highly efficient drinking water filtration system using organic adsorbent. He has worked in several internal and external funded projects as investigator. He has published more than 30 international journal papers and edited book chapters. His major patents includes Cancer Risk Assessment tool using Python Language, Indoor air pollution control by application of IoT and Water Filtration System using bio-adsorbents.

Accessibility Information

PDF accessibility summary

This PDF does not fully comply with PDF/UA standards, but does feature limited screen reader support, described non-text content (images, graphs), bookmarks for easy navigation and searchable, selectable text. Users of assistive technologies may experience difficulty navigating or interpreting content in this document. We recognize the importance of accessibility, and we welcome queries about accessibility for any of our products. If you have a question or an access need, please get in touch with us at accessibilitysupport@springernature.com.

EPUB accessibility summary

This ebook is designed with accessibility in mind, aiming to meet the ePub Accessibility 1.0 AA and WCAG 2.0 Level AA standards. Its features include described images and other non-text content, screenreader-friendly navigation and accessible math. Math is represented either as MathML, LaTeX or in images. If math is represented as image, Alt Text might not be present. We recognize the importance of accessibility, and we welcome queries about accessibility for any of our products. If you have a question or an access need, please get in touch with us at accessibilitysupport@springernature.com.

Bibliographic Information

Book Title
Advances in Waste Management

Book Subtitle
Proceedings of the International Conference on Advances and Innovations in Recycling Engineering (AIR-2021)

Editors
N. A. Siddiqui, Akmalov Shamshodbek Baxtiyarovich, Abhishek Nandan, Prasenjit Mondal

Series Title
Lecture Notes in Civil Engineering

DOI
https://doi.org/10.1007/978-981-19-7506-6

Publisher
Springer Singapore

eBook Packages
Engineering, Engineering (R0), Springer Nature Proceedings excluding Computer Science

Copyright Information
The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd. 2023

Hardcover ISBN
978-981-19-7505-9
Published: 25 April 2023

Softcover ISBN
978-981-19-7508-0
Published: 26 April 2024

eBook ISBN
978-981-19-7506-6
Published: 24 April 2023

Series ISSN
2366-2557

Series E-ISSN

Edition Number

Number of Pages

2366-2565 1 X, 248

Number of Illustrations
6 b/w illustrations, 89 illustrations in colour

Topics
Waste Management/Waste Technology, Sustainable Development, Waste Management/Waste Technology

Keywords

Solid Waste Management | Toxic Release | Occupational Safety | Climate Change | Mitigation Techniques | Nano-Pollutants | AIR21

Publish with us

Policies and ethics

Back to top