Record Nr. UNINA9911031670003321 Autore Tiwari Shashi Kant Titolo Al-Driven Environmental Pollution Management / / edited by Shashi Kant Tiwari, Atul Fegade, Mustafa Kamal Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2025 Pubbl/distr/stampa 3-031-96243-5 **ISBN** Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (392 pages) Collana Climate Risks and Solutions, , 3005-1673 Altri autori (Persone) FegadeAtul KamalMustafa Disciplina 006.3 Soggetti Artificial intelligence **Environmental management** Machine learning **Pollution** Biogeography Artificial Intelligence **Environmental Management** Machine Learning Biogeosciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Understanding Environmental Pollution -- Advanced Monitoring Nota di contenuto Techniques -- Artificial Intelligence In Pollution Management --Economic And Sustainable Solutions -- Technological Innovations For Sustainability -- Index. Sommario/riassunto This book provides a comprehensive overview of the challenges caused by environmental pollution on a global scale, and delves into the intricate sources of air, water, and noise pollution. It discusses cuttingedge technologies such as IoT-based systems and AI integration for pollution detection and monitoring networks. With a focus on machine

learning and deep learning models, the book provides insights into

Furthermore, it examines the implementation of Al-driven strategies for pollution control and reduction, alongside considerations for urban

assessing, predicting, and mitigating the impact of pollution.

planning and sustainable infrastructure development. This indispensable resource navigates the social, policy, and economic implications of employing AI in environmental governance, emphasizing the importance of global cooperation for effective pollution management. The book will help readers to:1. Understand the adverse effect of environmental pollution in the era of new age. 2. Implement advanced management techniques that integrate sustainability into various environmental business economics.3. Explore effective environmental control and mitigation strategies using Internet of Things technologies and data analytics.4. Leverage AI/ML/DL for accurate environmental monitoring, modelling, prediction and decision-making.5. Navigate the complexities of Industry 4.0 to achieve sustainable development goals.