1. Record Nr. UNINA9910896182103321 Autore Goyal Manish Kumar **Titolo** Al Innovation for Water Policy and Sustainability / / by Manish Kumar Goyal, Sachidanand Kumar, Akhilesh Gupta Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024 Pubbl/distr/stampa 3-031-72014-8 **ISBN** Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (73 pages) SpringerBriefs in Water Science and Technology, , 2194-7252 Collana Altri autori (Persone) KumarSachidanand GuptaAkhilesh Disciplina 551.48 Soggetti Water Hydrology Artificial intelligence **Environmental management** Sustainability Environmental policy Artificial Intelligence **Environmental Management Environmental Policy** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Basics of Al for Water Management -- Al for Water Conservation -- Al for Water Treatment -- AI for Water Policy -- AI Framework for Future Water. Sommario/riassunto In the face of unprecedented challenges in managing water resources, the integration of artificial intelligence (AI) emerges as a revolutionary force, reshaping the landscape of water conservation, treatment, irrigation, policy formulation, watershed management, and the monitoring of groundwater and surface water. This book explores the transformative role of AI in the water domain, exploring cutting-edge applications and innovative solutions that promise to address pressing issues in sustainable water management. As we navigate the

complexities of a changing climate, population growth, and

urbanization, the chapters within this book offer insights into how AI

technologies can enhance efficiency, optimize resource utilization, and provide data-driven strategies for ensuring the resilience and sustainability of our vital water ecosystems. From intelligent water treatment systems to precision agriculture and policy decision support, each chapter unfolds a narrative of Al-driven advancements, providing a comprehensive guide for researchers, practitioners, and policymakers navigating the intersection of artificial intelligence and water management.