Special Issue

Intelligent Water Management: Machine Learning, Remote Sensing, Data Analytics, Predictive Modeling, and the Path to Sustainability

Message from the Guest Editors

This Special Issue invites pioneering research that harnesses the power of artificial intelligence (AI) and advanced data technologies to revolutionize how we monitor, predict, and manage water systems. We explore how machine learning, remote sensing, big data analytics, and predictive modeling can unlock smarter, more sustainable solutions. This collection aims to bridge the gap between traditional hydrological approaches and next-generation tools, fostering climate resilience, enhancing water resource management, and safeguarding ecosystems. Situated at the intersection of environmental science and cutting-edge technology, this Special Issue builds on the existing literature by spotlighting AI-driven forecasting, smart water systems, and data-driven decision-making as catalysts for transformative change. We welcome contributions that push boundaries—whether through theoretical breakthroughs or real-world applications—offering a dynamic platform for researchers, engineers, and policymakers to shape the future of water sustainability. Dive in and join us on the path to a water-secure world!

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

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