Special Issue

Artificial Intelligence for Sustainable Management of Groundwater Resources: New Developments, Challenges and Untapped Potentials

Message from the Guest Editor

Artificial intelligence (AI) techniques can be applied for the simultaneous prediction of groundwater heads, contaminant transport, and saltwater intrusion; the optimization of monitoring networks; and providing early warnings of critical conditions pertaining to the supply of drinking water and ecosystems that depend on groundwater. More sophisticated AI models can produce more accurate predictions of groundwater behavior, pinpoint areas susceptible to pollution and depletion, initiate preventive actions, and promote platforms for cooperation between local communities, policymakers, and scientists. This Special Issue examines the multifaceted applications of AI in this field, breaking down its contributions, tackling related issues, and outlining its potential future applications. It is still essential for resilient and sustainable groundwater management techniques to embrace AI's potential while tackling its obstacles. Al has the potential to develop a more resilient and sustainable groundwater management paradigm by overcoming obstacles through interdisciplinary collaboration and capacitybuilding.

Guest Editor

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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

Dr. Jean-Luc PROBST

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