Special Issue

Water–Energy Nexus in the Era of Smart Water Revolution and Energy Transition

Message from the Guest Editors

As water and energy systems are becoming more strained, understanding the current and future evolving relationship is more crucial than ever for a sustainable future. This Special Issue aims to address the water–energy nexus at a time of great challenges in which climate change and supply security are driving the energy transition via with the implementation of smart grids, leading towards the development of more efficient, resilient, and sustainable solutions. Research areas may include, but are not limited to, the following area:

- Water–energy nexus investigation in smart systems;
- Smart water and energy grids modelling and optimisation;
- Water and energy demand characterisation and forecasting;
- Optimal design and management of water distribution systems;
- Optimal and sustainable hydroelectric production from micro to large plants;
- Digital twin implementation and AI tools supporting digitalisation of the water sector;
- Energy analysis of water treatment and drinking water production;
- Machine learning applications for smart technologies and networks;
- Resilience and interdependencies between water and energy infrastructures.

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Deadline for manuscript submissions

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About the Journal

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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