Special Issue

Management and Optimization of Urban Water Networks

Message from the Guest Editor

Sustainable water systems, which have benefits in terms of both cost and the environment, are now facilitating the management and optimization of urban water networks, which enables water systems to evolve into adaptive and resilient systems by maximizing the performance of existing water infrastructures. This goal depends on the support of intelligent control theories, as well as state-of-the art control approaches or technologies, to achieve low-cost management. Currently, the knowledge gaps and challenges may include (1) large-scale non-linear and multi-objective optimization models (machine learning models or deterministic models); (2) the system-wide management and optimization of urban water networks (such as integrated framework of drainage network–wastewater treatment plant–urban river, water supply network–drinking water plant); (3) the incorporation of on-line sensors with mathematical models to perform the real-time management of urban water networks; and (4) real practice to demonstrate the management and optimization of urban water networks. The aim of this Special Issue is to collect and share the innovative ideas and results on such topics......

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

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