



Modeling, Control and Optimization for Smart Water Systems

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Deadline for manuscript
submissions:

1 June 2024

Message from the Guest Editor

With the rise of the Water 4.0 approach, water systems are made smart, thanks to the spread of advanced sensors and actuators throughout the whole plant, as well as their integration in the Industrial Internet of Things network. This unlocks access to a previously inaccessible amount of data, as well as to unprecedented communication capabilities, thus opening up a new range of possibilities for research and development.

This Special Issue aims at collecting cutting-edge contributions proposing ways to effectively and efficiently exploit the advantages offered by smart water systems, with the final goal of making water management more sustainable. Both methodological and case-study contributions are welcome. A list of possible topics includes, but is not limited to:

- Optimal design of Smart Water Systems;
- Hydraulic and data driven modeling of Smart Water Systems;
- Development and use of Smart Water Systems digital twins;
- Analysis and modeling of water demand;
- Real time control;
- Pump scheduling;
- Energy recovery;
- Monitoring and control of water quality;
- Leakage detection;
- Fault detection, isolation and recovery;
- Decision support systems.





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Message from the Editor-in-Chief

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