







Special Issue Reprint

Advances in the Monitoring, Diagnosis, and Optimisation of Water Systems

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This Special Issue is committed to focusing on highly relevant state-of-the-art advances in the monitoring, diagnosis, and optimisation of water systems, aiming to provide a broad spectrum of reference methods and techniques specially focused on water cycle applications, including fault detection (namely, leak localisation to reduce the loss of water due to leaks, which may account for up to 65 % of the total water depending on the network) or water quality modelling in Water Distribution Networks (WDNs), as well as different methodologies applied to water sanitation. Here, there is growing interest in the adaptation and use of technologies related to the circular economy that promote environmental sustainability, in which resource recovery is a key issue for industrial and environmental processes and shows a wide spectrum of study possibilities, especially in wastewater treatment plants (WWTPs). This is mainly related to sludge treatment processes such as biogas generation via the substrate co-digestion process, which can be an alternative source for thermal and electrical energy production, as well as a source of renewable natural gas. Hence, all the contributions in this Special Issue have an impact on the advances in the monitoring, diagnosis and optimisation of water systems and, overall, cover a wide and complete sector of knowledge within this area.





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