Special Issue

Machine Learning in Water Distribution Systems and Sewage Systems

Message from the Guest Editors

Currently, water distribution and wastewater systems are very often equipped with measuring devices with the ability to transmit data to a central management center. This allows for the collection of many parameters, which, when properly used, can allow for the improvement in processes in the planning, design, and operation of water distribution and sewage systems. In the analysis of the functioning of systems, data obtained as a result of computer simulations are often used. The purpose of this Special Issue is to propose machine learning (ML) models to improve the various types of processes in water distribution and wastewater systems that occur during the planning, design, and operation stages. A special release may include supervised learning algorithms, unsupervised learning algorithms, and reinforcement learning algorithms, such as the following:

- Deep learning models;
- Decision tree;
- Fuzzy inference;
- SVM (Support Vector Machine) algorithm;
- Evolutionary computation;
- Naive Bayes algorithm;
- KNN algorithm;
- K-means;
- Random forest algorithm;
- Dimensionality reduction algorithms;
- Logistic Regression;
- PCA (Principal Component Analysis) algorithm.

Guest Editors

Dr. Jacek Piekarski

Department of Water, Sewage and Waste Technology, Koszalin University of Technology, Koszalin, Poland

Dr. Jacek Dawidowicz

Department of Water Supply and Sewage Systems, Bialystok University of Technology, Bialystok, Poland

Deadline for manuscript submissions

26 January 2026

Water

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0

mdpi.com/si/223162

Water
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
water@mdpi.com

mdpi.com/journal/water

Water

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0

mdpi.com/journal/water

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

Dr. Jean-Luc PROBST
Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Water Resources) / CiteScore - Q1 (Aquatic Science)

MDPI