Special Issue

Machine Learning Algorithms for Hydraulic Engineering

Message from the Guest Editors

Machine learning (ML) is one of the main branches of artificial intelligence (AI), its primary objective is to use computational methods to extract information from data. In recent years, machine learning algorithms have been increasingly used in environmental sciences due to their high capability for modelling non-linear phenomena, especially in weather and climate forecasts, as well as in the analysis and modelling of hydrological, ecological, and oceanographic data. In any case, they represent a very powerful tool for dealing with a wide variety of issues in hydraulic engineering. This Special Issue aims to cover recent advances in machine-learning-based modelling for addressing the following topics, and additional different topics:

- River flow forecasting at different time scales;
- Water balance models for water resources investigations;
- Global estimates of the land–atmosphere water flux;
- Water demand prediction;
- Water quality characterization;
- Performance forecasting of hydraulic devices;
- Support to experimental activities;
- Long-term predictions of significant wave height;
- Wave energy extraction systems.

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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