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Hydraulic Engineering Applications of Artificial Intelligence, Deep Learning, and Digital Twin Technology

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Message from the Guest Editors

The emergence of digital twin technology provides technical support for intelligent water conservancy project construction, covering functions ranging from forecasting to early warning, previewing, and preplanning and providing forward-looking, scientific, precise, and safe support for decision-making and management. Combined with traditional hydraulic engineering safety monitoring methods, such as geotechnical tests and numerical simulation, artificial intelligence algorithms, deep learning methods, and digital twin technology can help solve more complex problems, which is of great theoretical significance and application value, ensuring project safety.

Therefore, this Special Issue will focus on artificial intelligence, deep learning methods, and digital twin technology in hydraulic engineering construction. We would like to invite you to submit your research papers on suitable topics including but not limited to the following:

Hydraulic engineering information perception,

Intelligent processing methods of safety monitoring data,

Application of digital twin technology in hydraulic engineering,

Intelligent safety monitoring models,

Systems of hydraulic engineering.



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Special Issue



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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.

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