Special Issue

Recent Advances in Hydro-Mechanical Turbines: Powering the Future

Message from the Guest Editors

The power sector is responsible for 40% of global carbon emissions, making it the single largest contributor to global warming. The low-carbon transformation process of the power industry is crucial to the realization of human society producing net zero carbon emissions in the future. In order to ensure the consumption of new energy with strong volatility, the importance of hydropower as the basic power supply in future power systems will increase, while the most promising energy storage facility-pumped storage projects will also effectively smooth out the fluctuations in renewable energy, ensuring the stability of the power grid. This Special Issue aims to present and disseminate the most recent advances related to the theory, design, modeling, application, control, and condition monitoring of all types of Hydro-Mechanical Turbines. Topics of interest for publication include, but are not limited to, the following:

- Recent advances in hydro turbines
- Electric motor/generator technology for hydro turbine units
- Optimization design method for hydraulic machinery
- Recent advances in modeling methods

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Deadline for manuscript submissions

24 October 2025

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/192566

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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