Special Issue

New Insights into Hydropower and Hydraulic Machinery

Message from the Guest Editors

The most important goals of hydropower include energy storage services and regulatory services, as well as system recovery after black-out, and hydropower plants, in particular reservoir and pumped-storage facilities, are especially equipped to provide these services.

Hydropower plants equipped with reservoirs constitute energy storage with a large capacity and long discharging time (hours, days and even seasons of the year). Energy storage with the use of hydropower plants is an excellent regulatory tool in the system, which in cooperation with other energy storage technologies (e.g., batteries) is the basic element of security of energy supply.

Regulatory services and system recovery after black-out constitute another very important task carried out by hydropower plants for electric power systems with a considerable number of sources with generation levels difficult to forecast (PV, wind turbines, etc.).

We hope that the papers collected in this issue of the Applied Sciences Journal will focus on the challenges related to the design, construction and operation of hydropower machines and devices in connection with the current trends in the hydropower sector.

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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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