Special Issue

Recent Advances in Energy Conversion Apparatus for Physical Energy Storage Systems: Design, Drive, and Integration

Message from the Guest Editors

The rapid development of renewable energy generation and electrified transportation has posed tremendous risks and challenges in relation to modern power systems. To suppress the increasing level of stability issues and to improve the capability for flexible operation, it is important to integrate energy storage technology in power systems that enable the electricity to be stored and used later. This Special Issue is dedicated to providing a platform for researchers to exchange the latest research and the newest ideas in the field of the design, drive, and integration of high-performance energy conversion apparatus for physical energy storage systems. Research areas may include (but are not limited to) the following:

- Pumped hydro energy storage;
- Compressed air energy storage;
- Flywheel energy storage;
- Solid gravity energy storage;
- Molten salt energy storage;
- Electrical machines for energy storage systems;
- Power electronic converters for energy storage systems;
- Control techniques for energy storage systems;
- Integration design for energy storage systems;
- Grid-connected regulation strategy.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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