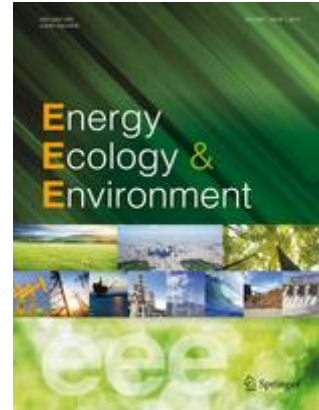


Special Issue: Advanced Intelligent and Networked Energy storage techniques (AEST2019)

Dr. Rui Xiong



1. Call for papers for a Special Issue of Advanced Intelligent and Networked Energy storage techniques

The depletion of fossil fuels, the increase of energy demands, and the concerns over climate change are the major driving forces for the development of renewable energy such as solar energy and wind power. However, the intermittency of renewable energy has hindered the deployment of large scale intermittent renewable energy, which, therefore, has necessitated the development of advanced large-scale energy storage technologies. The use of large scale energy storage can effectively improve the efficiency of energy resource utilization, and increase the use of variable renewable resources, the energy access and the end-use sector electrification (e.g. electrification of transport sector).

2. Thematic areas

The main objective of this Special Section in Energy, Ecology and Environment is to provide a platform for presenting the latest research results on the technology development of large scale energy storage. We welcome research articles about theoretical, methodological and empirical studies, as well as review articles that provide a critical overview on the state-of-the-art of these technologies. This Special Section is open to all types of energy, such as thermal energy, mechanical energy, electrical energy and chemical energy, using different types of systems, such as phase change materials, batteries, supercapacitors, fuel cells, compressed air, etc., which are applicable to various types of applications, such as heat and power generation, electrical/hybrid transportation etc. Original, high quality technical articles as well as original review and survey articles are encouraged.:

The topics of interest include, but are not limited to:

- Novel energy storage materials and topologies
- Application in electrical/hybrid driven system and electrical/hybrid vehicles

- Next generation energy storage and conversion devices, systems or techniques
- Large scale energy storage system modeling, simulation and optimization, including testing and modeling ageing processes
- Advanced energy storage management systems, including advanced control algorithms and fault diagnosis/online condition monitoring for energy storage systems
- Artificial Intelligence in Energy and Renewable Energy Systems
- Wireless power transfer, charging systems and infrastructures
- Big Data Analytics in Energy Storage
- Business model for the application and deployment of energy storage
- Lifecycle analysis, repurposing, and recycling

We also highly recommend the submission of multimedia with each article as it significantly increases the visibility, downloads, and citations of articles.

3. Tentative schedules

- Call for papers: Jan 2019 – Jul 2019
- Submission of Manuscript: From Feb 2019 to OCT 2019
- Peer review/paper revision process: Feb – OCT 2019
- Decision deadline of all revised papers: Nov 2019
- Publication of Special Issue: NOV 2019

4. Preparation of manuscript

The manuscript must be prepared in accordance of the guidelines provided by Energy, Ecology & Environment. Please visit the journal homepage (<https://www.springer.com/energy/journal/40974>) for more details. Authors need to select the option “**AEST2019**” to submit the manuscript for this special issue.

5. Guest Editor

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