Special Issue

Design and Control of Hybrid Renewable Power Systems

Message from the Guest Editor

Hybrid renewable power systems (HRPSs) usually consist of two or more technologies along with energy storage systems that convert energy from renewable sources (RESs) into electricity and heat. HRPSs have been introduced to overcome the unpredictable nature of RESs. In order to optimally utilize HRPSs, providing increased system efficiency as well as greater reliability in energy supply, three issues must be concurrently considered: optimal system design, operation, and cost. This Special Issue will include articles on the following topics:

- the currently available techniques for developing a reliable design tool capable of being used to study the performance parameters of HRPSs from several points of view (technical, economic, and environmental effects);
- management strategies for optimizing the behaviour of single components (such as batteries) or maximizing RES harvesting;
- tracking of the optimal trade-off between system power reliability and cost;
- the current environmental impact of HRPSs across the whole life cycle and cradle to cradle.

Guest Editor

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Message from the Editor-in-Chief

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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