Special Issue

Renewable Energy Conversion and Sustainable Power Systems Engineering

Message from the Guest Editors

Renewable energy conversion is becoming increasingly important in modern power systems, offering a sustainable and cost-effective solution for distributed generation and self-consumption. As the share of renewables in the global energy mix continues to rise, Hybrid Renewable Energy Systems (HRESs) present a practical approach to balancing supply and demand, reducing transmission and distribution losses, and enhancing grid stability. This Special Issue aims to advance the field of HRESs by soliciting original, innovative research focused on improving the sustainability, efficiency, reliability, flexibility, and profitability of these systems

- Sustainable power generation from renewable sources;
- Energy management strategies (EMSs);
- Power electronics for HRESs:
- Off-grid and grid-connected HRES solutions;
- Energy prosumers and their role in HRESs;
- Algorithms applied to HRESs (e.g., ANNs, GAs, PSO, ACO, SVMs, Bio-inspired).

An environmental and economic analysis is critical for evaluating alternatives and selecting optimal solutions. By integrating various HRES components, we can achieve sustainable, efficient, and reliable energy systems.

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Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

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