Special Issue

Recent Advances and New Challenges in Solar–Wind Hybrid Energy Systems

Message from the Guest Editor

Solar and wind energy are two key renewable energy sources that have gained significant traction recently. Solar photovoltaic (PV) and wind turbine technologies have advanced rapidly, substantially contributing to global energy generation. Combining these two renewable sources into hybrid energy systems offers several advantages, including improved reliability, energy production optimization, and better resource utilization. This Special Issue explores recent advances and addresses emerging challenges in developing, integrating, and optimizing solar–wind hybrid energy systems.

Keywords

- solar–wind hybrid systems
- renewable energy integration
- energy storage
- grid integration
- optimization
- modeling and simulation
- energy management
- case studies
- smart grid
- microgrid
- hybrid energy generation
- energy transition

Guest Editor

Prof. Dr. Adrian Ilinca

École de Technologie Supérieure, Université du Québec, Montreal, QC H3C 1K3, Canada

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Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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