

## Special Issue

# Advanced Technologies in Renewable Energy Generation Systems

### Message from the Guest Editor

A new global energy economy is being created as a result of the faster-than-ever worldwide expansion of renewable energy production. This expansion is accomplished by incorporating some renewable energy sources into the electrical grid. The electrical systems become more sophisticated as a result of the integration and present new difficulties. One of these difficulties, as in PV and wind systems, is the unpredictable nature of the energy produced by these renewable sources as well as their dependency on environmental changes. The integration process will also require power electronic switches. Consequently, to improve and support the performance of these grid-integrated renewable sources, contemporary control, flexible devices, and optimization methodologies should be introduced. The following are only a few examples of the subjects of interest:

- Modern power system operation and control;
- Distributed generation;
- Modern FACTS device control techniques in contemporary power systems;
- Modern optimization techniques for improving the integration of renewable energy sources into the grid;
- Security and resiliency of hybrid power systems.

### Guest Editor

Dr. Mohamed Mosaad

Department of Electrical and Electronic Engineering Technology, Yanbu Industrial College, Yanbu 46452, Saudi Arabia

### Deadline for manuscript submissions

closed (8 May 2024)



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

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### Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University  
Niccolò Cusano, 00166 Roma, Italy

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