Special Issue

Power Converters Design, Control and Applications

Message from the Guest Editors

Nowadays, power electronic converters are key components to determine the performances of whole energy systems in a wide variety of applications. Among these, renewable energy conversion, grid-connection, energy storage management, transportation and wave energy conversion can be cited as examples. Efficient conversion and control of electrical power is of key importance. High efficiency, high gain, high power density and fast transient response are only a few goals of modern systems. Advanced design criteria and control techniques are required to meet such conflicting requirements. Based on these preliminary remarks, this Special Issue will focus on the modeling, analysis, design and control of power converters and their applications. Topics of interest include, but are not limited to, the following:

- Innovative power converter topologies;
- Power converters design;
- Advanced control techniques for dc/dc, dc/ac and ac/dc converters;
- Analog and digital control of power converters;
- Power converters for renewable energy sources;
- Grid-connected power converters;
- Bi-directional power converters;
- Multilevel power converters.

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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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