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Advances in the Modeling, Control, and Design of Power Converters with Wide-Band-Gap Devices

Guest Editors:

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Deadline for manuscript submissions:
closed (30 September 2023)

Message from the Guest Editors

This Special Issue aims to present and disseminate the most recent advances related to the topology, modelling, control, design, analysis, and online monitoring of all types of power converters, especially the application of SiC and GaN devices.

Topics of interest for publication include, but are not limited to, the following:

- Novel topologies of dc/ac, ac/dc, dc/dc, and ac/ac conversion;
- Modelling and control of two-/three-/multilevel converters;
- Modeling and control of high-power motor drives, solid-state transformers, HVDCs, etc.;
- Fault-tolerant and smart condition monitoring technologies;
- Power electronic devices, gate drivers, and integrated circuits for WBG devices;
- The design of high-performance power converters with SiC and GaN devices;
- Optimization towards passive components including capacitors, magnetics, and cooling assembly;
- The application of WBG devices in energy storage, renewable energy integration, electric ship/train/aerospace, etc.

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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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