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Challenges and Opportunities in Modern Power Electronics

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closed (30 November 2021)

Message from the Guest Editors

Dear Colleagues,

This Special Issue is to attract original, high-quality papers and review articles focused on modern opportunities and applications in power electronics, but showing at the same time how the new challenges can be successfully faced and solved. Topics of interest include but are not limited to:

Design: wide bandgap devices applications; EMI and high-frequency design; modular converters; hybrid (linear-switching) converters; fractional charging converters; electro-thermal design; converters with non-linear inductors

Applications: innovative lighting systems; more electric vehicles and more electric aircraft; energy saving; supercapacitor management

Optimization: power density improvement; power converter efficiency improvement; reliability improvement; multiobjective optimization of converters (regarding their efficiency, power density, and costs)

AI applications: big data for power electronics; AI techniques in power electronics

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Guest Editors



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Special Issue



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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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