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Challenges and Opportunities in Modern Power Electronics

Guest Editors:

Prof. Dr. Gianpaolo Vitale

Institute for High Performance
Computing and Networking,
National Research Council, 90146
Palermo, Italy

Dr. Giuseppe Lullo

Dipartimento di Ingegneria,
Universita' di Palermo, Viale
delle Scienze, Edif.9, 90128
Palermo, PA, Italy

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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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Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and
Aerospace Engineering,
University of Roma Sapienza, Via
Eudossiana 18, 00184 Roma, Italy

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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Energies Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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