Special Issue

Power Converters for Energy Conversion: Design, Control and Applications

Message from the Guest Editors

This Special Issue is dedicated to the aspects related to the integration of power electronics in power systems through studies, analyses, simulations, projects, experiments, and all other possible paths that can be followed to disclose the key points for the assessment of future power systems with power electronics. This Special Issue is the ideal place for works focusing on the dynamics of power systems and power electronics. Topics of interest include, but are not limited to, the following:

- DC–DC, AC–DC, and DC–AC converter design procedures (innovative topologies, steady-state analysis, etc.)
- Control strategies for power converters
- Conventional grid-following and emerging grid-forming control structures
- Investigation of system stability with time-domain methods (phasors, EMT) and other analytical methods (modal analysis, state-space models, transfer functions, impedance-based methods)
- Numerical methods for circuit and electromagnetic field simulations
- Characterization and modeling of power switches
- Characterization and modeling of passive components (inductors, transformers, capacitors)

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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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