

## Special Issue

# New Topologies, Design, Modeling and Control of DC-DC Converters in Power Systems

### Message from the Guest Editor

DC-DC converters play a very important role as an enabling technology in the latest trends in novel power systems. Virtual Power Plants, massive energy storage in batteries, energy recuperators connected to railway catenaries, solid state transformers, the vehicle to grid initiative, etc. This Special Issue focuses on new topologies of DC-DC converters to be integrated in new electrical networks, their design, modelling and control. Original papers will be accepted in all areas related to the above aspects. Topics of interest for publication include, but are not limited to, the following:

- Innovative power topologies
- Design and multi-objective optimization techniques of transformers and inductances specific to these converters
- Multi-objective converter design and optimization techniques including the cooling system
- Modelling of parasitic lay-out elements and new active snubbers
- Real-time optimization and reconfiguration techniques for PWM modulators
- Modelling strategies and identification of system uncertainties
- Control techniques oriented to the stabilization of a system with multiple converters and multiple power flows

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### Guest Editor

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### Deadline for manuscript submissions

closed (28 February 2022)



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## About the Journal

### 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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