Special Issue

New Optimization Algorithms, Control Schemes and Modulation Techniques for Modular Power Converters

Message from the Guest Editors

This Special Issue focuses on advancements in optimization algorithms, control schemes, and modulation techniques tailored for modular power converters. Modular power converters, including serial and parallel power converters, and other multi-stage configurations, play a critical role in renewable energy systems, electric vehicles, and industrial applications. Their modular architecture provides scalability, fault tolerance, and improved efficiency. However, optimizing their performance remains challenging due to complex system interactions, nonlinear dynamics, and increasing power quality demands. The proposed Special Issue aims to showcase innovative research addressing these challenges through:

- **Optimization Algorithms**
- **Control Schemes**
- **Modulation Techniques**

This Special Issue welcomes a broad range of contributions, including theoretical developments, simulation-based studies, and experimental validations. Submissions may focus on emerging trends such as artificial intelligence and machine learning for modular converter control, real-time modulation strategies, fault-tolerant schemes for modular systems, and optimization techniques for large-scale deployments.

Guest Editors

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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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