Special Issue

Modelling, Design and Implementation of Power Electronic Converters

Message from the Guest Editors

With the rapid development of fields such as renewable energy generation and energy storage systems, data centre power supplies, electric vehicles and smart grids, the demand for advanced power electronic converters continues to grow significantly. The core technology requires high reliability, high stability, and excellent dynamic response control strategies and system design. Meanwhile, the industry pursues solutions with high conversion efficiency, high power density, and low cost to meet the needs of compact and lightweight applications. Based on the above background, this Special Issue aims to contribute to the improvement of power electronic converters and systems through control strategies, converter topologies, power devices and design schemes. The relevant research content may include, but is not limited to, the following topics:

- Advanced power electronic converter topologies;
- Advanced power electronic modelling methods and control strategies;
- Soft-switching technology;
- Packaging and driving of power semiconductor devices;
- Power electronics fault diagnosis;
- Energy management.

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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