Special Issue

High-Frequency Power Converters

Message from the Guest Editors

Power converters operating at hundreds of kHz to Mega-Hertz range have a high-power density and compact size, but cause difficulties in terms of design, modelling, control, and analysis. The use of wide-bandgap devices such as Silicon Carbide (SiC) and Gallium Nitride (GaN) creates new challenges for the compact design of high-switching power converters. In order to employ high switching frequency to the power converters, a deep investigation in terms of the analysis of the control or topology as well as the design methodology and control solution is required. Authors are invited to submit full papers describing original research work in areas including but not limited to:

- Innovated topologies in high-frequency, high-power-density power conversion;
- Design methodology of high-frequency power converters such as magnetic design and circuit design;
- Wide bandgap devices in high-frequency power conversion;
- Control solution (analog, digital, or mixed signal) for high-frequency power converters;
- Modelling for high-frequency power converter, including dynamic modelling and power loss characterization;
- Soft-switching techniques for power converters.

Guest Editors

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Deadline for manuscript submissions

closed (31 January 2022)

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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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