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Power Converters: Modeling, Control, and Applications in Power Electronics—2nd Edition

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Message from the Guest Editors

The current energy transition to a sustainable society has propelled the rapid development of novel technologies, such as electric vehicles, fast-charging stations, more efficient renewable energy systems, large-capacity storage energy systems, etc. All these technologies rely on power electronics converters, which have imposed new challenges in terms of topology, design, and control.

Topics of interest for this Special Issue include but are not limited to, those described in the keywords.

Keywords:

- high voltage ratio DC-DC power converters
- bidirectional power converters
- single- and three-phase inverters for off- and on-grid applications
- single- and three-phase rectifiers
- multi-level converters for low powers
- steady-state analysis oriented to the optimization of converters
- dynamic modeling oriented to the control of converters
- new control techniques for power electronics converters
- application of new semiconductors technologies
- emerging technologies in power electronics: electric vehicles, charging stations, energy storage system

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Message from the Editor-in-Chief

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