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Advanced Power Electronics Converters: Design, Control and Applications

Guest Editors:

Dr. Eduardo Espinosa Neira

Department of Electrical Engineering, Faculty of Engineering, Universidad Católica de la Santísima Concepción, Talca 3467769, Chile

Dr. Pedro Eduardo Melín Coloma

Department of Electrical and Electronic Engineering, Universidad del Bío-Bío, Concepción 4051381, Chile

Dr. Ricardo Lizana Fuentes

Department of Electrical Engineering, Centro de Energia, Universidad Católica de la Santisima Concepción, Alonso de Ribera 2850, Concepción, Chile

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Message from the Guest Editors

Power converters are essential devices for converting and conditioning electrical power in a controlled and efficient way. This Special Issue presents relevant developments, tests, and evaluation methodologies of modulation techniques. control strategies, algorithms, communication, jointly with their implementation in digital systems. The objective is to report to the community the details of the implementation and validation in digital systems of modulation techniques for two-level converters, multilevel converters, and modular multilevel converters; grid-synchronization algorithms for three-phase or singlephase systems and their applications in weak grids; control strategies for power converters, including linear and nonlinear controllers and predictive control, and their application as AC drives, energy integration, power quality, emerging applications, etc.; communication protocols for power converters, as well as which of these could be replicated in future developments and research of power electronic applications.

- power electronics
- modulation technique
- multilevel converters
- multi-modular converters
- industrial applications
- digital control



Specialsue







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Editor-in-Chief

Prof. Dr. Giulio Nicola CerulloDipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network

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