

## Special Issue

# Advanced Studies in Power Electronics for Renewable Energy Systems

### Message from the Guest Editor

Today, society is experiencing a major lifestyle changes as a result of worldwide environmental concerns and climate change. The circular economy, renewable energy, and electromobility are playing major roles in achieving the zero carbon emission goals established by the International Energy Agency for 2050. There is no doubt that power electronics (PE) is essential to this transition to net-zero emissions. However, PE has undergone continuing transformation since its emergence at the beginning of the 20th century. New materials, devices, modules, systems, configurations, controllers, applications, etc., are reported everyday via specialized forums, journals, and patents around the world. Therefore, this Special Issue focuses on progress in the modelling, control, design, power conditioning, and integration of power electronics for electromobility and renewable energy systems. In this Special Issue, original research articles and reviews are accepted. Research areas may include (but are not limited to) the following:

- Battery and power management;
- Consumer electronics;
- Energy harvesting;
- Electromobility;
- Emerging applications;
- GaN/SiC power devices.

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### Guest Editor

Dr. Francisco J. Perez-Pinal

Electrical and Electronics Engineering Department, Celaya Institute of Technology, 38010 Celaya, Mexico

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### Deadline for manuscript submissions

30 September 2025



## Applied Sciences

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*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

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### 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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### Editor-in-Chief

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

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