Special Issue

Power Converters for Electric Vehicles, Energy Storage Systems and Renewable Energy Sources

Message from the Guest Editors

The intent of this Special Issue is to collect innovative contributions on the development of new topologies and control techniques for EV power converters and drives, new architectures and energy management approaches for EVs equipped with different onboard energy sources, and the development of innovative chargers and power converters for ESSs aimed at integrating EVs and RESs in power systems considering smart charging/discharging strategies. The topics to be covered in this Special Issue are as follows:

- The design of DC/DC converters for hybrid and pure EVs;
- Power converters for lithium-ion batteries, fuel cells, and supercapacitors;
- Control techniques for drives for electric vehicles;
- AC/DC converter topologies for interfacing ESSs to power systems;
- Fast and ultra-fast chargers for EVs;
- Bidirectional converters for implementing V2G and G2V ancillary services, considering RESs;
- New power and energy management strategies for V2G and ESSs in smart grids;
- Onboard energy management strategies for hybrid EVs;
- GaN and SiC power devices for EV and ESS applications;
- The integration of RESs in power systems.

Guest Editors

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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 guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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