

Special Issue

Impact of Renewable Energy Resources and Energy Storage Technologies Interfaced by Power Electronic Converters in AC Grids

Message from the Guest Editor

The weakening of AC grids due to the low-inertia response of massive renewable energy sources interfaced by power electronic converters is a current tendency that demands new control schemes for power electronic converters and energy storage technologies. For this reason, it is important to develop digital models for the dynamic and transient simulation of energy conversion systems to predict their behavior in increasingly frequent unexpected circumstances. This Special Issue provides a platform for researchers to share their findings related to the impact of renewable energy systems and energy storage technologies interfaced by power electronic converters on electrical AC grids. All contributions that address various difficulties and challenges in the aforementioned field are encouraged for submission. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Hybrid AC/DC networks;
- Energy storage technologies ;
- Stability of power-converter-dominated AC grids;
- Renewable energy;
- Grid-forming techniques;
- Power quality;

Guest Editor

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closed (15 March 2024)



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About the Journal

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

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