

Call for Papers

Special Section on Modeling, Control, and Stability of More Electronics Power Systems

Power electronic equipment and devices have been widely used in every layer of modern electric power systems to improve energy efficiency and sustainability. In distribution systems, power converters serve as the critical interface between the utility grid and distributed energy resources such as solar photovoltaic, wind turbine and battery energy storage. They also play a key role in controlling the power quality of distribution networks. In transmission systems, high voltage high power electronic converters are the ideal choice for flexible management of power flow in bulk interconnected power systems. On one hand, it is no doubt that the power electronics technology presents electrical engineers many opportunities to realize more efficient and flexible power systems and will become increasingly important for future decarbonized power grids. On the other hand, such power electronic converters exhibit completely distinctive characteristics with traditional power system components and may bring a number of challenging stability issues from both power converter and power system perspectives. Therefore, advanced modeling, control, and stability analysis approaches should be proposed for electrical engineers to better understand and design future more electronics power systems.

This Special Section on Modeling, Control, and Stability of More Electronics Power Systems will be a timely and extremely important topic and of great interests for academics and industries. It will bring together researchers and experts from both power electronics and power systems communities to tackle the technological challenges in future ultracomplex power systems with more electronic devices. Detailed topics include but are not limited to:

- Modeling and stability of grid-interfaced converters
- Grid friendly power electronic converters
- Coordination control of distributed energy resources
- Power quality control
- Hybrid AC/DC interconnected systems
- Electronic distribution and transmission systems
- Modeling and stability of low inertia grids
- Ancillary services from renewables and energy storage

Contact the deputy editor-in-chief if your manuscript is not within the listed topics, as papers within the general topic of electrical machines and systems are all welcome by the CES TEMS.

Brief guideline for authors:

Papers styles:

1. Review articles.
2. Original research.
3. Rapid communications.

All submitted papers must be in English, must not be published by or currently under review for any other journal or conference.

Detailed submission guideline and template are available at the submission website. All manuscripts and any supplementary materials should be submitted via the site <https://mc03.manuscriptcentral.com/tems>, choosing "**SS: Modeling, Control, and Stability of More Electronics Power Systems**" as the manuscript type.

About the journal

The CES TEMS is a brand-new quarterly journal published by the China Electrotechnical Society (CES) and the Institute of Electrical Engineering of the Chinese Academy of Sciences, with co-sponsorship of IEEE PELS, starting from March 2017.

Topics of the CES TEMS include but are not limited to electrical machine topologies and designs, field analysis, motor drives, motion control and servo systems, power electronics and power converters, EMI and EMC techniques, renewable energies, xEV and other electrified transportation techniques, applications of new materials, and many others related to the electrical machines and systems.

The CES TEMS is an open-access journal, currently with no publication charge applied to the authors. Published papers will be included in the IEEE Xplore. Inclusion in other globally recognized database such as the Web of Science (SCI) is under arrangement.

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