Call for Papers

CMP Chinese Journal of Electrical Engineering

Special Issue on Grid Power Electronics Technology

Scheduled Publication Time: March, 2021

The grid power electronics technologies offer flexible and efficient integration of renewable energies and controllable loads, as well as power flow control, such as wind power, photovoltaic (PV) power, high voltage direct current (HVDC), flexible AC transmission systems (FACTS), electric vehicle, and so on, which enable energy systems to fulfil critical roles in various utility applications but at the same time impose stringent requirements for stability and safety on generation, transmission, distribution and utilization sides. There are many unique interactive and emerging issues (harmonic interaction and resonance, voltage and frequency disturbance, etc.) in the grid power electronic system. How to resiliently and reliably operate and synchronize grid power electronic system under different dynamic scenarios becomes critical for grid stability. Meanwhile, traditional analysis majorly focuses on either power electronics or power system perspectives. Comprehensive research considering the impacts from both sides should be conducted to better understand the interactive issues in grid power electronic system.

The special issue targets the dynamic modeling, control strategy, new topology, and converter design of grid power electronic system, especially the interaction between aggregated power electronic devices and the mutual effect between the power electronic system and power grid, which may cause concerns in power system level. Topics of interests include, but are not limited to:

- Nonlinear analysis of grid power electronic system
- Harmonic instability and harmonic interaction analysis of grid power electronic system
- Active coordination control on power grid (voltage support & frequency regulation)
- Control of grid power electronics system in unbalanced grid
- Power efficiency optimization and improvement methods
- Topology of grid power electronics system
- Advanced control strategy of grid power electronic system
- Power quality issues of aggregated grid power electronics system
- Converter design under different grid conditions
- High power electronic applications in T&D

All manuscripts must be submitted through Manuscript Central at https://mc03.manuscriptcentral.com/cjee. Submissions must be clearly marked "**Grid Power Electronics Technology**" on the cover page. The information about manuscript preparation and requirements is provided on http://www.cjeecmp.com/EN/column/column334.shtml.Manuscripts submitted for the special issue will be reviewed separately and will be handled by the guest editorial board noted below.

Deadline for Submission of Manuscript: October 31, 2020

Guest Editors: *Yong Li, Hunan University, China (yongli@hnu.edu.cn)*
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Proposed Timeline:

- Oct. 31, 2020 – Manuscripts Submission Deadline
- Dec. 31, 2020 – Final Acceptance Notification
- Jan. 31, 2021 – Manuscripts Forwarded to CJEE for Publication
- Mar. 31, 2021 – Special Issue Appears in CJEE