



Call for Papers

CPSS Transactions on Power Electronics and Applications

Special Issue on Distributed Energy Resources, 2018

Scheduled Publication Time: March 31, 2018

The transformation of the existing electric power systems into modern smart grids is gaining momentum as more countries seek to lower their energy consumption and greenhouse gas (GHG) emissions. The transformation requires the integration of significant renewable energy and other transmission and distribution assets, which raises tremendous technical challenges involving voltage and frequency stability, energy storage, system balancing, intermittency of renewable energy, and more. As an integral part of modern power systems, distributed energy resources (DER) have been rapidly deployed throughout the world, initially as an effective means of clean generation to displace fossil fuels and subsequently as resources to provide power system functions. DERs include distributed generation systems such as wind, solar and CHP systems, energy storage units including electric vehicles, controllable loads, and associated conversion and control systems in power distribution networks. The innovative solutions to facilitate the seamless integration of DERs into electrical grids have never been so important. These solutions are critical to enabling maximum penetration of renewable energy, while allowing utilities to maintain high standards of grid stability, reliability, and energy costs. The purpose of this Special Issue is to disseminate the recent technological advancement in distributed energy resources, pertinent to analysis, design, conversion, control, performance, and application.

Prospective authors are invited to submit original contributions or survey papers for peer review for publication in CPSS Transactions on Power Electronics and Applications. Topics of interest of this Special Issue include, but are not limited to:

- Power converters for distributed energy resources
- Advanced control and conversion for DERs
- Integration of DERs in power distribution networks
- Power system functions provided by DERs
- Communications and security of DER systems
- Energy management systems, VPP and strategies
- Resiliency and reliability of DER systems
- Architectures of DER systems and smart grids
- Analysis, modeling, design and applications
- Standards and policies relevant to DERs
- Forecasts of resources and loads
- System impact of DERs to electrical grids
- Economics and business models
- Demonstration and operation of DERs

The manuscripts should be submitted through Manuscript Central at <https://cn03.manuscriptcentral.com/tpea-cpss>. Submissions must be clearly marked "Special Issue on Distributed Energy Resources, 2018" on the cover page. The information about manuscript preparation and requirements is provided on http://tpea.cpss.org.cn/a/For_Authors/. Manuscripts submitted to this Special Issue will be reviewed and handled by the guest editorial board as noted below.

Deadline for Submission of Manuscripts: February 15, 2018

Guest Editor-in-Chief: Liuchen Chang, University of New Brunswick, Canada (LChang@unb.ca)

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Proposed Timeline:

- February 15, 2018 – Manuscripts submission deadline
- March 15, 2018 – Final acceptance notification
- March 31, 2018 – Camera-ready manuscripts for publication