



CALL FOR PAPERS

IEEE Journal of Emerging and Selected Topics in Power Electronics

SPECIAL ISSUE ON

Power Electronics & Systems: Modeling, Analysis, Control, and Stability

Scheduled Publication Time: September 2017

Recent advances in power electronics have brought a rapid development to power systems, including renewable energy generation, high-voltage dc (HVDC) transmission, flexible ac transmission system (FACTS), energy storage, and microgrids. Power electronics are the foundation for new mobile power system technologies, such as variable-frequency ac for more-electric aircraft and medium-voltage dc for electric ships. While there has been a steady growth in the use of power electronics on the load side, the penetration of power electronics into the generation, transmission and distribution areas has far more impacts on system operation, control, and stability. New control interaction and resonance problems have been encountered in renewable energy and HVDC systems, which caught many utility companies and power electronics manufacturers by surprise. New modeling, analysis and control technologies as well as system stability theories have to be developed. Impedance-based and other frequency-domain techniques are emerging for stability analysis and control of ac power electronics systems. Real-time and hardware-in-the-loop simulation is also becoming common tools for the design and integration of HVDC, renewable energy integration, and microgrid systems.

This special issue is devoted to the modeling, analysis, control, and stability of electronic power systems. Prospective authors are invited to submit original contributions and survey papers in these areas. Papers dealing with real-world problems and practical applications of advanced modeling, analysis and control techniques are particularly encouraged. Topics of main interest include but are not limited to:

- Impedance-Based Approaches – Modeling, Analysis, Measurement, and Control
- Other Small-Signal and Frequency-Domain Techniques for Stability Analysis
- Real-Time and Hardware-in-the-Loop Simulation – New Techniques, Algorithms, Platforms, and Applications
- Advanced Systems – Renewable Energy, HVDC Transmission, Mobile Power Systems, Microgrids
- Real-World Applications – Fast Transients and Stability Problems, Modeling, Analysis & Mitigation

All manuscripts must be submitted through Manuscript Central at <http://mc.manuscriptcentral.com/jestpe-ieee>. Submissions must be clearly marked Special Issue “**Power Systems Enabled by Power Electronics: Modeling, Analysis, Control, and Stability, 2017**” on the cover page. When uploading your paper, please select your manuscript type “Special Issue.” Refer to <http://www.pels.org> for general information about electronic submission through Manuscript Central. 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: January 31, 2017

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Proposed Timeline:

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| • September 1, 2016 | – Call for Papers Announced |
| • January 31, 2017 | – Manuscripts Submission Deadline |
| • May 31, 2017 | – Final Acceptance Notification |
| • July 31, 2017 | – Manuscripts Forwarded to IEEE for Publication |
| • September 2017 | – Special Issue Appears in IEEE JESTPE |