



Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

IEEE Transactions on Energy Conversion

Joint Special Issue on Asynchronous Interconnect and Generation, 2018

Scheduled Publication Time: June, 2018

With the rapid growth of modern power systems and the wide application of large capacity HVDC systems, the stability, security and reliability of AC-DC synchronous system are threatened by the possibility of multi-HVDC blocking faults and other complex faults. Interconnecting two or more AC power systems or transmitting large capacity power from power plants directly to load centers through HVDC systems is deemed an effective measure to handle the problem. However, there are many technical challenges: lack of standardized equipment, inadequate stability and versatile control design, mismatch of generation and load, harmonics and oscillations in a weak AC system. Research is being carried out in both the system and equipment levels of planning, design, construction, modeling, analysis, operation, control, protection and stability of asynchronous interconnection of power systems. New high-efficiency topologies and effective measurements are also key nontrivial issues when developing practical asynchronous interconnected power systems.

Prospective authors are invited to submit original contributions, or survey papers or tutorials, for review and publication in this special issue on Asynchronous Interconnect and Generation. Papers with applications in nature are particularly welcome. Topics of interest include, but are not limited to:

- Stability and security of AC/DC hybrid (Synchronously interconnected, asynchronously interconnected, or multi-infeed HVDC) power systems
- Planning and design of asynchronous interconnection systems
- Back-to-back HVDC systems and long distance HVDC systems for asynchronous interconnection
- LCC-HVDC systems and VSC-HVDC systems for asynchronous interconnection
- Design, development and control of HVDC systems for asynchronous interconnection
- Design, development and operation of key equipment for asynchronous interconnection systems
- Modeling, simulation and analysis of asynchronously interconnected power systems
- Operation, control and protection of asynchronously interconnected power systems
- Overvoltage and insulation of asynchronously interconnected power systems
- HVDC systems connected to weak AC systems
- Harmonics, oscillations, and impedance compatibility of asynchronously interconnected power systems
- Effective measurement techniques and system impedance compatibility for synchronous and asynchronous systems
- Coordinated control of asynchronously interconnected AC and DC system

All manuscripts must be submitted through Manuscript Central at <http://mc.manuscriptcentral.com/jestpe-ieee>. Submissions must be clearly marked "Special Issue on Asynchronous Interconnect and Generation, 2018" 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: October 10, 2017 (Extended)

Guest Editors: Don Tan, IEEE JESTPE (dong.tan@ieee.org); Juri Jatskevich, IEEE TEC (jurij@ece.ubc.ca)
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Proposed Timeline:

- May 1, 2017– Call for Papers to IEEE JESTPE Editorial Office
- Oct 10, 2017– Manuscripts Submission Deadline
- Nov 1, 2017– Acceptance Notification
- Jan 30, 2018– Manuscripts Forwarded to IEEE for Publication
- Mar 30, 2018– Special Issue Appears in IEEE JESTPE for June issue