

CALL FOR PAPERS IEEE TRANSACTIONS ON SMART GRID

Special Issue on “Application of Smart Grid Technologies on Power Distribution Systems”

Economic, political, environmental, social and technical factors have prompted the emergence of the smart grid concept. Distribution systems are arguably the element of power delivery infrastructures where smart grid technologies are likely to have the most significant impacts. The smart grid concept has driven the coordinated and integrated application of existing power, communications, control, and information technologies at distribution system level. Furthermore, it has impelled the development and implementation of new technologies, tools and approaches for optimizing the operation of distribution systems, empowering customers, and creating new products and services. Expectedly, all these factors have also contributed to the emergence of new issues and challenges. The objective of this special issue is to address, discuss, and present novel applications of smart grid technologies on power distribution systems, including but not limited to:

- Application of smart control technologies for mitigating impacts of Plug-in Hybrid and Battery Electric Vehicles and allowing the implementation of Vehicle-to-Grid (V2G) strategies
- Applications of smart grid technologies such as distributed storage and FACTS devices for mitigating impacts and allowing the integration of intermittent distributed generation (solar photovoltaic and wind)
- Application of Advanced Distribution Management Systems (DMS), Advanced Metering Infrastructures (AMI), and on-line power flow and state estimation algorithms for real-time operation of distribution systems
- Applications of Advanced Distribution Automation (ADA) technologies such as Fault Location, Isolation and Service Restoration (FLISR), and Integrated Volt-VAR Control (IVVC) schemes for improving reliability of distribution systems, maximizing asset utilization and increasing efficiency
- Applications of new distribution protection systems and technologies such as adaptive protection, single-phase tripping, pulse reclosing, etc for improving reliability and power quality of distribution systems
- Applications of smart grid technologies for optimal operation and control of distribution systems and allowing the implementation of microgrids

The articles in this special issue will emphasize the application of these technologies and methodologies from the distribution system perspective, with special attention to mitigating impacts of new loads, integrating Distributed Energy Resources (DER), optimizing operation and control, and improving efficiency and reliability.

Submission Guidelines

This special issue solicits original work that must not be under consideration for publication in other venues. Two-page extended abstracts are solicited for the first round of reviews. Authors of selected abstracts will be invited to submit the full papers in the second round. Authors should refer to the IEEE Transactions on Smart Grid author guidelines at <http://www.ieee-pes.org/publications/information-for-authors> for information about content and formatting of submissions. Please submit a PDF version of the abstracts including a cover letter with author contact information via e-mail to julio@quanta-technology.com before the deadlines.

Important Dates

Nov 20th, 2010: Deadline for extended abstract submission
Jan 20th, 2011: Completion for first-round of reviews
Jun 20th, 2011: Deadline for full paper submission
Oct 20th, 2011: Final decision notification
Nov 20th, 2011: Publication materials due

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