Call for Papers – IEEE Transactions on Smart Grid

Special Issue on
"Distributed Energy Management Systems"

New elements and features, such as intermittent renewable energies (REs), demand response (DR), electric vehicles (EVs), grid-scale storages, PMUs, active distribution networks, microgrids, and smart buildings/homes, are emerging as the smart grid continues to evolve. All these advances present a pressing need for transforming traditional energy management systems in a smart grid setting with the following contents: 1) Transition from a centralized energy management system architecture to distributed/hybrid automation and control; 2) Power system operation methods considering risks and uncertainties; 3) Security assessment and monitoring for cyber-physical power systems; 4) Low carbon emission based generation dispatch considering REs, DR and storage; 5) Wide-area close-looped control; 6) Distributed energy management system family covering all sections of smart grids (e.g., generation, transmission, distribution, microgrids, buildings/homes, EVs and PMUs). In this special issue, we invite original and unpublished submissions discussing new theories, technologies, challenges, and products developed for smart grid energy management systems.

Topics of interest for this Special Issue include, but are not limited to:

- Energy management systems for microgrids
- Stochastic optimization methods for distributed energy management systems
- Hierarchical control applications to distributed energy management systems
- Energy management systems for smart home/building and other demand-side applications (e.g., EVs and DR)
- Big data analytics and visualization for distributed energy management systems
- Energy management systems for active distribution grid
- Distributed wireless sensors for energy management systems
- PMU applications to distributed energy management systems
- Energy management system security, resilience and extensibility as a cyber-physical-system (CPS)
- Architecture and communication among energy management system family members
- IEC61970 and IEC 61968

One-page extended abstracts are solicited for the first round of review. 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 contents and formatting of submissions. Please submit a PDF version of the abstracts including a cover letter with authors’ contact information to, Prof. Hongbin Sun, via e-mail at: shb@tsinghua.edu.cn.

Important Dates
Feb. 1, 2014: Deadline for extended abstract submission
Feb. 15, 2014: Completion of first-round of reviews
Jun. 16, 2014: Deadline for full paper submission
Jan. 15, 2015: Final decision notification
Mar. 2, 2015: Publication materials due

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