GlobalSIP 2013
IEEE Global Conference on Signal and Information Processing

Information Processing in the Smart Grid

www.ieeeglobalsip.org/sym/13/IPSG   December 3-5, 2013 • Austin, Texas, U.S.A.

Organizing Committee

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Call for Papers

Communication and information technologies are taking an increasingly important role in monitoring and controlling physical systems. The smart grid is a canonical example of a cyber-physical system (CPS) in which the physical power grid is monitored by a network of sensors and other intelligent devices to dynamically track and control the network to ensure near-perfect reliability. In contrast to the traditional grid in which generation, transmission, and distribution are clearly distinct and managed by well-defined entities, the smart grid 1) allows integration of renewables (e.g., solar, wind) at all points on the grid (transmission, distribution and consumer premises); 2) enables consumers to manage their own energy resources and consumption via a host of new technologies and tools; 3) provides wide-area situational awareness to grid operators; and 4) automates key decision-marking processes at all layers of the grid. To realize these transformations, the smart grid is built on a vast cyber infrastructure that supports secure, reliable, and real-time information processing throughout the power grid. The Signal Information Processing (SIP) Community will play a key role in architecting this key end-to-end communications, control, and computation (cyber) network that overlays and functions in synchrony with the power grid.

This symposium will focus on research and innovation results for the design of the power grid's cyber infrastructure. It aims to bring together a mix of researchers from the SIP community and from other related fields to exchange novel ideas and explore innovative ideas in architecting key technologies in tomorrow's power grid.

Topics of interest include:

- Smart Grid Communication Networks
- Demand Side Management Systems
- Smart Grid Cyber-Security and Privacy
- Architectures and Models for the Smart Grid
- Smart Grid Large Data Sets: Modeling, Analysis, Communications, Compression, Storage and Security
- Distributed Data Processing and Decision-making in the Grid
- Smart Metering Networks and Data Processing
- Communication and Data Processing for Phasor Measurement Units
- Renewable and Storage Integration Challenges in Smart Grid Cyber Systems
- Real-Time Electricity Market Interactions
- Secure Power System State Estimation and Monitoring

Paper Submission
Paper submission will be online only through the GlobalSIP 2013 website. Papers should be in IEEE two-column format and no longer than 4 pages.

Symposia Website
Full details, new updates, and submission instructions can be found on the symposia website, http://www.ieeeglobalsip.org/sym/13/IPSG

Important Dates	
Paper Submission Deadline	June 15, 2013
Review Results Announce	July 30, 2013
Camera-Ready Papers Due	September 7, 2013

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