Globecom 2015: Smart Grid Communications Track Call for Proposals

Motivation and Scope: Communication and information technologies will play a key role in monitoring and controlling the smart grid. These technologies will form a wide and complex information architecture that extends and interfaces with numerous distributed energy sources; transmission and distribution grids; a sophisticated, multi-layered energy trading market; autonomous, remote management and control agents; smart-homes, -buildings, and -campuses; and a more informed and engaged end-consumer. Collectively, the architecture will support secure, reliable, and real-time information processing throughout the power grid and thereby enable it to save energy, reduce costs, improve sustainability, and increase its reliability and transparency.

The design of such a secure, reliable and real-time information infrastructure for the smart grid poses a wide range of communications, sensing, and optimization problems. These include, for example, supporting low-latency, secure, real-time communication; reliable communication with a massive number of sensors and actuators; enabling wide-area situation awareness and grid security, joint design of communications, computing and control methods; efficient support of power system and electricity market operations; integrating heterogeneous control and communication architectures. The solutions to these and other smart grid architecture design problems will require decisive inputs from the communication engineering community.

This track will bring together a mix of researchers from the communications community and other related fields to exchange research and innovation results to architect the information infrastructure for tomorrow's power grid. The broad areas of interest include, but are not limited

Topics of Interest

- Cyber-Physical Wide-Area Monitoring, Protection & Control (Cyber-Physical WAMPAC)
- The Whole Picture – Sense, Communicate, Compute, Control
- Smart Grid Cyber Security and Privacy
- Support for Storage, Renewable Resources, and Microgrids
- Demand Side Management, Demand Response, Dynamic Pricing
- Communications and Networks for Smart Grids and Smart Metering
- Smart Grid Analytics and Data Management
- Smart Grid Services and Management Models
- Smart Grid Standards, Co-Simulation, Test-Beds, and Field Trials

How to Submit Paper

The IEEE Globecom 2015 website provides full instructions on how to submit

papers. You will select the desired symposium when submitting. Papers must be submitted by April 1, 2015.

Symposium Chair

Shalinee Kishore, Lehigh University, skishore@lehigh.edu

Shalinee Kishore is an Associate Professor in the Department of Electrical and Computer Engineering at Lehigh University in Bethlehem, PA, USA. She obtained her Ph.D. and M.A. degrees in Electrical Engineering from Princeton University and the M.S. and B.S. degrees in Electrical Engineering from Rutgers University. She has held numerous internships at AT&T, Bells Labs, and AT&T Labs-Research and was recently a visiting researcher at Princeton University.

Professor Kishore is the recipient of the Presidential Early Career Award for Scientists and Engineers (PECASE), the National Science Foundation CAREER Award, the P.C Rossin Assistant PRofesosrhsip, and the AT&T Labs Fellowship Award. She has also served as a Kavli Fellow for the National Academy of Sciences. Her research interests are in communication theory, networks, and signal processing. Her research group is designing communication and network protocols to facilitate smart grid objectives, such as renewable integration, demand response, load shaping, real-time flow measurements, and electricity market interactions.