IEEE

IEEE COMMUNICATIONS SOCIETY

3rd IEEE INFOCOM Workshop on Communications and Control for Smart Energy Systems (CCSES)

http://www.ieee-infocom.org/Workshops.html

Call for Papers

The emerging smart energy system is expected to be a large-scale cyber-physical system that can improve the efficiency, reliability, and robustness of power and energy grids by integrating advanced techniques from power systems, control, communications, signal processing, and networking. For instance, advanced communications and networking technologies are expected to play a vital role in the future smart grid infrastructures by supporting two-way energy and information flow and enabling more efficient monitoring, control, and optimization of different grid functionalities and smart power devices. The efficient design of the forthcoming smart grid system faces a plethora of challenges at different levels ranging from communications and networking to control and power systems. In addition, the deployment of the smart grid will lead to several new multi-disciplinary research opportunities and potentials for collaborations with industries and various international smart grid standardization bodies.

Building on the success of its 2012 and 2013 versions, the Workshop on *Communications and Control for Smart Energy Systems* is intended to provide a forum for discussion on all these most recent developments and bring together industry and academia, engineers and researchers. The workshop will be held in conjunction with the IEEE INFOCOM 2014 conference (http://www.ieee-infocom.org/) and it provides a unique occasion for the community to meet and share ideas and visions.

Topics of Interest

- Communication architectures and protocols for smart grids
- Advanced control of micro-grid distribution networks
- Smart grids for green communications and green computing
- Advanced metering infrastructure and smart meter technologies
- Distributed generation and storage systems
- Wide-area measurement and monitoring systems
- Demand response management and load shaping
- Power line communications and physical layer design for smart grid communications
- Integration of green and renewable (wind, solar, geothermal, etc.) energy sources
- Smart grid cyber security, intrusion detection, false data injection attacks
- Sensor and actuator networks for smart grid
- Dynamic pricing for networked constrained electricity markets and deregulation
- Vehicle-to-grid networks and interconnection of electric vehicles
- Distributed fault detection and communication-based robust control of smart grid
- Home-area energy automation networks, ZigBEE and home-plug solutions
- Cognitive radio and applications in smart grid communications
- Time synchronization protocols for real-time smart grid operation
- Transmission switching and routing technologies for smart grid
- Quality-of-Service and service differentiation on power networks
- Smart grid communications standardization regulation, and interoperability
- Test-beds and field trials for smart grid communications and networking
- Game-theoretic modeling and analysis of smart power grids
- Consumer privacy protection and load altering attacks

Important Dates:
Submission Deadline:
Dec. 15, 2013
Author Notification:
Feb. 7, 2014
Camera-Ready Deadline:
Feb. 28, 2014
Workshop Date:
May 2, 2014

TPC Members

Raouf Boutaba (Univ. of Waterloo)
Aranya Chakrabortty (NCSU)
Mohammad Chaudhry (IBM)
György Dán (KTH, Royal Institute of Technology)
Jeff Dagle (Pacific Northwest National Laboratory)
Iñaki Esnaola (Princeton University)
Aravind Kailas (Algorithms, Models, and Systems Solutions, LLC)
Ghassan Karame (NEC Laboratories Europe)
Himanshu Khurana (Honeywell Corporation)
Deepa Kundur (University of Toronto)
Albert Lam (Hong Kong Baptist University)
Victor C.M. Leung (UBC)
Husheng Li (University of Tennessee)
King-Shan Lui (The University of Hong Kong)
Miles McQueen (Idaho National Laboratory)
Daniel Menasche (Federal University of Rio de Janeiro)
Hamed Mohsenian-Rad (University of California at Riverside)
Craig Rieger (Idaho National Laboratory)
Lalitha Sankar (Arizona State University)
Dong Wei (Siemens Corporation)
Jin Xiao (IBM Watson)
Yan Zhang (Simula Research Laboratory and University of Oslo)

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Walid Saad (University of Miami, USA)
Quanyan Zhu (Princeton University, USA)

Submission Guidelines: The authors are encouraged to submit full papers describing original, previously unpublished, complete research, not currently under review by another conference or journal, addressing state-of-the-art research and development. All submissions should be written in English with a maximum paper length of six (6) printed pages (10-point font) including figures. Submissions longer than 6 pages will not be considered.