CALL FOR PAPERS

2014 IEEE International Workshop on Intelligent Energy Systems (IWIES 2014)
"Applying Cybernetics in Intelligent Energy Systems"
www.iwies2014.org

The 2nd Workshop on Intelligent Energy Systems is aimed at bringing together researchers from academia, industry, standardization and public authorities to discuss recent developments in architectures, concepts and algorithms for managing the increasing complexity in Smart Grids and intelligent energy systems.

IWIES 2014 will be collocated with SMC 2014, the flagship conference of the IEEE Systems, Man, and Cybernetics Society. These two conferences will hold concurrent sessions and joint activities, but each conference will publish its own proceedings. Participants can enjoy both IWIES 2014 and SMC 2014 conferences and receive both conference proceedings for a single registration fee.

Today's power and energy systems are in a transformation process towards a smarter grid in order to cope with the large scale integration of Distributed Energy Resources (DER), intelligent and controllable loads and e-vehicles. Advanced Information and Communication Technology (ICT) solutions and management concepts are one of the key enablers of the future Smart Grid. In order to cope with ever increasing complexity of the Smart Grid itself and its corresponding Cyber-Physical components and devices new architectures, concepts, algorithms, procedures are necessary.

The main objective of this workshop therefore is to bring the research and industry community together to discuss recent developments and approaches in the area of intelligent energy systems.

The organizers look forward to welcoming you to San Diego, USA at 8 October 2014.

In conjunction with
2014 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2014)

Paradise Point Resort & Spa San Diego, USA

Sponsored by
IEEE Systems, Man, and Cybernetics Society (SMCS)

Technically Co-Sponsored by
IEEE Industrial Electronics Society (IES)

Important Dates

Workshop paper submission	May 31, 2014
Workshop author notification	June 15, 2014
Workshop camera-ready submission	August 10, 2014

SUBMISSION OF PAPERS

The working language of the workshop is English. Submit the full paper as PDF following the IEEE layout requirements by using the templates given at the workshop web page. Accepted papers that are presented at the conference will be published and included in the IEEE Xplore on-line digital library and indexed by EI Compendex database.

In addition, selected authors (with excellent paper reviews and outstanding presentation) are encouraged to submit extended papers for publication to the corresponding IEEE IES/SMC Transactions.

Topics of interest include

- Computational intelligence, soft computing, etc. (e.g., evolutionary/genetic algorithms, neural networks, fuzzy logic) in complex energy systems
- Modeling of complex energy systems
- Advanced simulation methods for Smart Grid development
- Advanced control and optimization algorithms
- Validation methods of applications and devices
- Recent developments in SCADA and distributed control technology (e.g., holonic concepts, multi-agent systems, service-oriented architectures)
- Integration of (distributed) stochastic energy generation
- Algorithms for automatic market participation
- Ancillary services for Distributed Energy Resource (DER) components
- Smart grid control and intelligent grid participants (e.g., DER, intelligent buildings, storages, charging devices)
- Integration of DER devices, storages and intelligent loads (e.g., intelligent buildings) into Smart Grids
- Topic related to e-vehicles (from a grid point of view)
- Cyber-security issues in intelligent energy systems
- Advanced communication systems and approaches for energy systems
- New developments in Smart Cities and regions
- Technologies for Smart Buildings and Homes
- Training and educational aspects
- Standard-related topics for intelligent energy systems

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