

# CALL FOR PAPERS

## Special Session on Real-time Simulation and Hardware-in-the-Loop Validation Methods for Power and Energy Systems

to be held in the frame of  
IECON 2013 - The 39<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society  
10<sup>th</sup> -13<sup>th</sup> of November 2013, Austria Center, Vienna, Austria



### TOPIC OF THE SPECIAL SESSION

The integration of distributed energy resources, new generation approaches and other novel technologies such as smart grid demand for powerful simulation methods to investigate both component behavior and system level interactions. Prior to installation, the operation of new concepts and technologies should be simulated in order to ensure safe operation and reduce the cost of field testing. To accomplish that, advanced modeling and simulation technologies as well as testing procedures are required for individual components as well as for whole energy systems. Real-time simulation technology offers such platform where state-of-the-art digital hardware and software is used to produce faithful responses of the systems using electro-magnetic transient modeling techniques.

In particular, this session will be focusing on (but not limited to) the following topics:

- Theory and application of real-time simulation of electrical systems

### SPECIAL SESSION ORGANISATION

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### Important Dates

Regular Paper submission:	April 01, 2013
Notification of acceptance:	June 15, 2013
Final submission:	August 01, 2013

The organizers look forward to welcoming you to Vienna, Austria from 10<sup>th</sup> to 13<sup>th</sup> November 2013.



- Real-time modeling and simulation of distributed energy resources (DER)
- Real-time system simulation of (all) electric vehicles and (all) electric aircrafts
- Power/Controller-Hardware-in-the-Loop experiments (PHIL/CHIL)
- Hardware/Software-in-the-Loop real time simulations and experiments
- Hardware interfaces for real-time applications
- PHIL power interfacing algorithms for real-time applications (CPU/FPGA computation)

### **SUBMISSION OF PAPERS**

The working language of the conference is English. Submit the full paper as PDF following the IEEE layout requirements by using the templates given at the conference web page. Accepted and presented papers will be published in an IEEE Proceedings volume and will be sent to IEEE Xplore. In addition, selected authors are encouraged to submit their papers for publication in the IEEE Transactions on Industrial Electronics or in the IEEE Transactions on Industrial Informatics.

### **THE CONFERENCE**

IECON 2013 is the 39th Annual Conference of the IEEE Industrial Electronics Society, focusing on industrial and manufacturing theory and applications of electronics, controls, communications, instrumentation and computational intelligence. The objectives of the conference are to provide high quality research and professional interactions for the advancement of science, technology, and fellowship.

Papers with new research results are encouraged for submission. IECON 2013

will be held concurrently with the 7th IEEE International Conference on E-Learning in Industrial Electronics (ICE-LIE 2013). Participation in any of these events just requires a single conference registration fee. The world's industry, research, and academia are cordially invited to participate in the wealth of presentations, tutorials, special sessions and social activities, and furthermore, enjoy beautiful Vienna.