

CALL FOR PAPERS

Special Session on Intelligent information processing for the Smart Grid: innovative estimation, control and optimization methods

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



TOPIC OF THE SPECIAL SESSION

As the demand for electric power increases the operation of the electric power grid is pushed to its limits. Under these conditions it has become imperative to operate electric power generation units in a faultless and uninterrupted manner, to optimize power management and to minimize power losses. To succeed this, investing in equipment renewal would not suffice on its own. It is also highly important to implement efficient estimation, control and optimization methods that will be based on intelligent information processing of sensor measurements obtained from the various components of the electric power grid.

The special session focuses on intelligent information processing for improving the stability and operational efficiency of the electric power grid according to the following axes: (i) assessment and exploitation of real-time communication schemes over the electric power grid, (ii) design of robust control methods for power generation units requiring limited information about the operating status of other generators in the grid, (iii) design of robust control methods for distributed

SPECIAL SESSION ORGANISATION

Gerasimos Rigatos
grigat@ieee.org

Pierluigi Siano
psiano@unisa.it

Nikolaos Zervos
nzervos@isi.gr

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

Important Dates

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



power generation units based on real-time exchange of information between the generators, (iv) development of distributed information processing tools for real-time assessment of the provided power quality and for condition monitoring of the grid (v) design of optimization tools for improved power flow management through a more efficient selection of the operating conditions (setpoints) of the power generators.

Topics of particular interest for this special session are:

- Sensorless control for power grid components
- Robust control methods for distributed power generators
- Synchronization of distributed interconnected generators
- Networked control of distributed power generators
- Optimal Power Management in Distributed Power Generation Systems
- Communication schemes and compensation for distributed power generation
- Condition monitoring of distributed power generation systems

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.