



IEEE Transactions on Industrial Informatics

CALL FOR PAPERS

for Special Section on



Identification and Observation Informatics for Energy Generation, Conversion, and Applications

Theme: High-performance operation of machines and power converters requires fast dynamic response and accurate regulation of controlled variables. As well as proper design of specific control schemes, accurate acquisition and knowledge of system information based on parameter identification and state observation is an effective measure to obtain enhanced performances regarding disturbance rejection, sensorless operation, parameter adaption, etc. With the increased emphasis on higher efficiency, effectiveness, reliability, and flexibility in energy generation, conversion, and applications, the level of interest and pace of developments in area of identification and observation have further accelerated and witnessed great breakthrough. Substantial new knowledge has been generated with an ever-increasing number of published research papers. Meanwhile, the continuous development of micro-processing technologies also provides a broad space for the application of identification and observation informatics. New industrial applications have been continuous reported with ever increasing more potential. In this scenario, a special section on identification and observation informatics for energy generation, conversion, and applications, especially for the control of machines and power converters, will be timely and of great interest for all those researchers working in this area and, of course, for industry.

This special section will focus on (but not limited to) the following topics:

- Parameter estimation and identification of machines and power converters
- Observer design and stability analysis
- Disturbance/uncertainty estimation
- Self commissioning, auto tuning, and plug-in control
- Sensorless control techniques for generators, motor drives, and power converters
- Robust control techniques with enhanced disturbance rejection
- Adaptive control techniques based on observation and identification
- On-line monitoring and parameter adaptation
- On-line and off-line identification of non-linear characteristics in machines and converters
- Application of identification and observation Informatics

Manuscript Preparation and Submission

Follow the guidelines in “Information for Authors” in the IEEE Transaction on Industrial Informatics <http://www.ieee-ies.org/pubs/transactions-on-industrial-informatics>. Please submit your manuscript in electronic form through Manuscript Central web site: <https://mc.manuscriptcentral.com/tii>. On the submitting page #1 in popup menu of manuscript type, select: SS on **Identification and Observation Informatics for Energy Generation, Conversion, and Applications**

Submissions to this Special Section must represent original material that has been neither submitted to, nor published in, any other journal. Regular manuscript length is 8 pages.

Note: The recommended papers for the section are subject to final approval by the Editor-in-Chief. Some papers may be published outside the special section, at the EIC discretion.

Timetable: **Deadline for manuscript submissions** ~~January 31, 2019~~ **(Extended to Mar. 31, 2019)**
Expected publication date (tentative) **September 2019**

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