IEEE Transactions on Industrial Informatics
CALL FOR PAPERS
for Special Section on
"New Trends in Residential Energy Management "

Theme: As an important branch of power demand side management, residential energy management (REM) plays an important role in reducing the emission and enhancing the energy efficiency in the energy delivery side. Recent technical advances bring significant transformations to energy end users. Firstly, increasing penetrations of residential renewable energy source, electric vehicle, and residential energy storage system have been transforming residential energy consumers to be "Energy Prosumers (Producer-and-Consumer)", which are capable to generate and consume energy simultaneously. Secondly, the two-way communication infrastructure enables residential energy entities interact and exchange information flows with the external environment. Thirdly, recent advances in ubiquitous sensing and metering technologies, such as Internet of Things (IoT), non-intrusive load monitoring, and advanced metering infrastructure, enable the deep understanding on behaviours of energy end users and related environments. These technical advances consequently drive residential energy entities to become complex cyber-physical-social systems, which require new solutions for coordinating, managing, and optimizing residential energy resources with the active participations of end users.

Topics include, but are not limited to, the following research topics and technologies:
- Intelligent home/building energy management system
- Applications of Internet of Things and Edge Computing in residential energy management
- Cloud based residential energy management platforms and applications
- Peer-to-Peer energy trading in residential side
- Energy-aware demand side recommendation systems
- Vehicle-to-Home technology
- Non-Intrusive appliance load monitoring
- Machine learning based applications in demand side
- Open architecture and standard for demand side management
- Cyber-physical security in demand side

Manuscript Preparation and Submission
Follow the guidelines in "Information for Authors" in the IEEE- IES website: **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 **New Trends in Residential Energy Management**

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**   **September 30, 2018**
Expected publication date (tentative)   **April 2019**

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