

"Energy Internet"

Theme As one of current trends and developments the Internet of Things (IoT) is affecting and will shape the society and the world in all respects. IoT is defined as a dynamic global network infrastructure with self-configuring capabilities based on standard and interoperable communication protocols where physical and virtual “things” are all connected to each other and are seamlessly integrated into the information network. The meet of IoT and energy industry naturally brings the promise of Energy Internet round the corner to introduce significant advantages and opportunities: enhanced automation, controllability, interoperability and energy efficiency, higher security and reliability, superior ecosystems, smarter energy management, advanced big data management capability, greater flexibility to accommodate various energy sources, better customer services and so on. To harness the Energy Internet-enabled opportunities and to develop advanced solutions for the challenging problems, new and original researches and contributions are expected by means of integrated studies from different backgrounds. This Special Section on “Energy Internet” is focused on state-of-the-art advances and innovations in theoretical foundations, infrastructure, systems, control strategies, smart energy management, test-laboratories, and applications for IoT integrated-smart energy networks.

Topics include, but are not limited to (Surveys and state-of-the-art tutorials are also welcome)

- ✓ Energy Internet infrastructures
- ✓ Smart multi-carrier energy hubs
- ✓ Intelligent systems based on connected vehicles
- ✓ Smart things networks for real world data management.
- ✓ IoT services, applications, standards, and test-beds
- ✓ Smart Home, and IoT-based Building Automation
- ✓ Industrial/residential IoT applications
- ✓ Programming models for the IoT
- ✓ Big data and Energy Internet data analytics
- ✓ Cyber-physical and other IoT systems architectures
- ✓ Enabling technologies and standards for the IoT and M2M communications
- ✓ Smart devices
- ✓ Green IoT: sustainable operation design, energy efficient management/ Machine-to-machine (M2M) objects
- ✓ Open topic for future IoT
- ✓ IoT-based energy/power management systems/ Smart Grid, Energy Management
- ✓ Sustainable design and solutions for energy internet
- ✓ IoT and cloud computing
- ✓ IoT networking and communications
- ✓ Multi-objective IoT system Modeling and Analysis—Performance, energy, reliability, robustness
- ✓ Open service platform
- ✓ Design examples of smart energy systems
- ✓ Experimental prototypes, Test-laboratories and field trial experiences of smart energy systems
- ✓ IoT deployment on smart cities, smart grid, energy systems, etc.

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 **Energy Internet**.

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, additional 4 pages may be allowed for a fee.

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** **December 10, 2017 (Extended to Feb. 20, 2018)**
 Expected publication date (tentative) **June 2018**

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