



# IEEE System Journal

## Special Issue on “Intelligent Internet of Things”

### CALL FOR PAPERS

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#### SCOPE

The Internet of Things (IoT) is becoming an attractive paradigm to realize interactions among ubiquitous things in the physical, cyber, and social spaces. In the IoT, the ubiquitous things are assigned with the capability of comprehensive perception, reliable information transmission, and smart processing, in which intelligence becomes a significant feature and should be highlighted. The intelligent IoT enables distributed intelligent devices (e.g., sensors, actuator, and data centers) to play novel roles as smart data acquisition, advanced information extraction, self-adaptive control manipulation, reliable transmission, and intelligent decision support and services. The success of intelligent IoT highly depends on the system architectures, networks and communications, data processing and ubiquitous computing technologies, which support efficient and reliable physical and cyber interconnections. In addition to the handling of huge sensed data, physical infrastructures, interfaces/middleware, and application services are required to support intelligent management and other business related activities, including clouding computing, big data, semantic web, knowledge coordination, and social computing. Due to the challenging open issues, intelligent IoT deserves academic attentions from the diverse aspects of information, network, management technologies, and society science.

This special issue intends to present innovative and significant research papers on the design, analysis, implementation, and evaluation of intelligent IoT and related supporting technologies. It will cover a number of related topics, and demonstrate pioneer work in this research area.

Topics of interest at system level include, but are not limited to:

- architectures and system design for intelligent IoT
- IoT intelligent sensing and interaction
- networking and communication architectures, protocols, and algorithms for intelligent IoT
- Advanced circuit and middleware modeling/analysis for smart objects in intelligent IoT
- Intelligent context sensing, context awareness, and ambient intelligence in IoT
- Testbeds, experimental measurements, performance evaluations and optimizations in intelligent IoT
- Cyber-physical security, data privacy, and trust in intelligent IoT
- Reliability, availability, dependability, robustness, and fault-tolerance in intelligent IoT
- Big data, data science, and analytical intelligence in intelligent IoT
- Cooperative data fusion, mining, and processing for intelligent decision in IoT
- Interoperability, management, maintenance of intelligent IoT
- Services, applications, and business opportunities of intelligent IoT
- Social computing and collective intelligence of human society with IoT
- Social implications of intelligent IoT

#### SUBMISSION GUIDELINES

Authors are invited to submit original research contributions by following the detailed instructions given in the “Information for Authors” at <http://ieeesystemsjournal.org>. Authors should explicitly select the “Special Issue on Systems-related topics in Robotics & Automation for human health”. Questions about the special issue should be directed to the Guest Editors.

#### SCHEDULE

Paper submission deadline:	Sep. 10, 2013	Minor revision deadline:	Jan. 15, 2014
Notification of the first review:	Oct. 25, 2013	Final notification:	Jan. 31, 2014
Revised paper submission:	Nov. 30, 2013	Final manuscript:	Feb. 15, 2014
Notification of the re-review:	Dec. 30, 2013	Expected publication:	late 2014