

IEEE Internet of Things Journal Special Issue on Spectrum and Energy Efficient Communications for Internet of Things

The Internet of Things (IoT) provides enormous connections of devices and sensors with different applications. IoT as a high-density network will take the burden of massive data generated by different kinds of terminals and sensors. Dramatic growth in Internet of Things (IoT) has created a shortage in the available radio spectrum. Wireless communications services in IoT such as cellular phones, tablets, and wireless Internet access have to compete with existing users in radar, government and military communications, environmental monitoring, and other IoT applications, which requires strategy to increase the efficiency of spectrum sharing among the enormous users in IoT. Besides, the IoT applications demand more and better functionality and performance from new electronic devices; these demands translate into greater energy consumption demands. The gap between energy storage and demand continues to grow and the battery technologies for energy storage are not expected to increase tremendously in the coming years. Therefore, it is essential to pursue fundamental research on new components, techniques, and architectures to achieve energy-efficient sensing, communications and networking in a shared spectrum environment for IoT. Topics of interests include, but are not limited to:

- 5G for IoT
- Massive access scheme for mobile users with large scale mobility in IoT
- Massive data reduction and simplification for energy efficient IoT
- Low power cost and energy efficient resource allocation scheme
- Smart and fast data processing
- Interference suppression for massive users in IoT
- Spectrum sharing techniques for IoT
- Sensing and cognition techniques for IoT
- Reconfigurable RF components for spectrum and energy efficiency in IoT
- Advanced spectrum sensing techniques for spectrum and energy efficient IoT
- Advances in massive MIMO systems

Schedule

Submissions Deadline: **July 15, 2018**

First Reviews Due: October 1, 2018

Revision Due: November 1, 2018

Second Reviews Due/Notification: December 1, 2018

Final Manuscript Due: **January 1, 2019**

Publication Date: 2019

Submission

All original manuscripts or revisions to the IEEE IoT Journal must be submitted electronically through IEEE Manuscript Central, <http://mc.manuscriptcentral.com/iot>. Author guidelines and submission information can be found at <http://ieee-iotj.org/>. The IEEE IoT Journal encourages authors to suggest potential reviewers as part of the submission process, which might help to expedite the review of the manuscript. Please suggest only those without conflict of interest. Each submission must be classified by appropriate keywords.

Guest Editors

Qilian Liang (liang@uta.edu), University of Texas at Arlington, USA

Tariq S. Durrani (durrani@strath.ac.uk), University of Strathclyde, UK

Xuemai Gu (guxuemail@hit.edu.cn), Harbin Institute of Technology, China

Jinhwan Koh (jikoh@gnu.ac.kr), Gyeongsang National University, Korea

Yonghui Li (yonghui.li@sydney.edu.au), University of Sydney, Australia

Xin Wang (xinwng@qca.qualcomm.com), Qualcomm Inc, USA