IEEE Internet of Things Journal
Special Issue on
Unmanned Aerial Vehicles over Internet of Things

In the last few years, unmanned aerial vehicles (UAVs) have developed rapidly and the applications of UAVs have been expanded in wide areas including photography, cargo delivery, inspection, and communications. Conventionally, UAVs are controlled and operated by a ground station using specific radio transmission modules, where the line-of-sight signal transmission is preferred and the operation range is limited, especially in urban areas. Using the Internet of Things (IoT) technologies, a UAV can be regarded as a terminal device connected in the ubiquitous network, where many other UAVs are communicated, navigated, controlled, and surveilled in real-time and beyond line-of-sight. The unique advantages of the UAV over IoT include: deployability at remote locations, capability of carrying flexible payloads, re-programmability during missions, and ability to sense/measure just about anything, anywhere. The research challenges to bring such capabilities of UAVs into practice are many and significant. It is expected to support low-latency control signaling, high-accuracy real-time navigation and surveillance, fast varying network topology, and high-speed media streaming. In this special issue, we aim to explore the theoretical and technical research outcomes on all the aspects of UAVs over IoT. The areas of interest include, but are not limited to:

- Communication architectures and protocols of UAV over IoT;
- 5G-based UAV communications;
- Optimal UAV deployment strategies;
- Low-delay control techniques and methods of UAV;
- High-accuracy navigation techniques;
- Real-time surveillance techniques;
- Capacity analysis of UAV networks;
- Ad-hoc networking, routing, handover and meshing of UAV networks;
- UAV secure communication techniques;
- Airspace management of UAVs;
- Sensing techniques of non-cooperative UAV;
- Localization, navigation, and dynamic path planning of UAVs over IoT
- Cooperative control of multiple UAVs.

Important Dates
- Submissions Deadline: **April 15, 2018**
- First Reviews Due: July 1, 2018
- Revision Due: August 1, 2018
- Second Reviews Due/Notification: September 1, 2018
- Final Manuscript Due: October 1, 2018
- Publication Date: 2018

Submission

All original manuscripts or revisions to the IEEE IoT Journal must be submitted online through the IEEE Manuscript Central, https://mc.manuscriptcentral.com/iot All manuscripts will be peer reviewed and must follow the standard guidelines for manuscript preparation and submission available at http://ieee-iotj.org/ Select the '*Special Issue on Unmanned Aerial Vehicles over Internet of Thing*s' special issue, rather than 'Regular Issue', when uploading your manuscript.

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