

Call for Papers - IEEE Internet of Things Journal Special Issue on *Low-latency High-reliability Communications for IoT*

Many envisioned applications of the Internet of Things (IoT), such as industrial automation, vehicle-to-X (V2X) networks, smart grid, and remote surgery, will have stringent transmission latency and reliability requirements that cannot be met by existing technologies. This situation poses many challenges that call for novel approaches and rethinking of the entire communication protocol stack to meet such requirements in latency and reliability. This special issue solicits recent advances in low-latency high-reliability communications for IoT networks. The following topics are especially welcome:

Topics of interest include, but are not limited to:

- Information theoretic analysis for low-latency high-reliability communications in IoT
- Novel network infrastructures for low-latency high-reliability communications in IoT
- Novel network/channel coding for low-latency high-reliability communications related to IoT
- Fog computing or fog networks for low-latency high-reliability IoT networks
- Novel multiple access technologies for low-latency high-reliability communications in IoT
- Novel modulation/demodulation schemes for low-latency high-reliability communications in IoT
- Communication protocols related to low-latency high-reliability IoT networks, e.g., device-to-device, cooperative communications, etc.
- Efficient computing and low-complexity algorithms in IoT for improving latency
- Medium access control for IoT low-latency high-reliability communications
- Physical-layer security in low-latency high-reliability IoT communications
- Low-latency high-reliability communication for heterogeneous networks
- Implementation issue for IoT low-latency high-reliability communications
- Progress in new application scenarios for low-latency high-reliability communications, e.g., industry 4.0, building automation, smart cities, V2X networking, etc.
- Advances in standardization for low-latency high-reliability IoT communications

Important Dates

Submission Deadline: October 15, 2018

First Review Due: January 1, 2019

Revision Due: February 15, 2019

Acceptance Notification: March 15, 2019

Final Manuscript Due: April 1, 2019

Publication Date: 2019

Submission

The special issue solicits the submission of papers that present original results and findings on low-latency high-reliability communications for IoT. Author guidelines and submission information can be found at <http://iot.ieee.org/journal> . All manuscripts should be submitted through Manuscript Central: <http://mc.manuscriptcentral.com/iot>.

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