Special Section: Call for Papers

Announcing a Special Section in **IEEE *Access***:
Internet of Things (IoT) in 5G Wireless Communications

Submission Deadline: May 1, 2016

IEEE *Access* invites manuscript submissions in the area of **Internet of Things (IoT) in 5G Wireless Communications.**

This last decade has witnessed the rapid development of Internet of Things (IoT) with multitude of applications built around various types of sensors. With issues at device and protocol levels, there is now a growing trend in integration of sensors and sensor based systems with cyber physical systems and device-to-device (D2D) communications. With the forthcoming fifth generation (5G) wireless communication systems, IoT is becoming increasingly important since 5G will be an important enabler for the IoT. Software defined IoT is also a new paradigm to solve issues in traditional systems. Further, the emergence of cloud computing and proliferation of intelligent 'smart' devices are expected to lead the revolution in IoT. Sensors in IoT are increasingly used in diverse areas, e.g., in situational and location awareness, leading to proliferation of sensors at the edge of physical world. The sensor data originating from the future IoT is expected to be diverse and also grow manifold with each passing year. There is a timely need to survey existing work, design new techniques, and identify new applications of IoT. Researchers, scientists, and engineers face emerging challenges in designing IoT based systems that can efficiently be integrated with the 5G wireless communications.

This Special Section in IEEE *Access* solicits submissions that deal with possible directions in which IoT based systems can evolve over the next decade. Within this theme, we are soliciting technical papers in conjunction with emerging 5G wireless communications.

Topics of interest include, but are not limited to:
- Architecture of IoT in 5G networks
- Software defined solutions for IoT
- Energy efficiency and energy harvesting in IoT
- Cooperative and smart sensing techniques
- Channel characteristics and modeling with dense and sparsely populated sensors
- Terminal intelligence and light weight sensors
- Data collection, processing, aggregation, and communication
- Efficient resource allocation schemes, QoS, and QoE in IoT
- Co-existence and device inter-operability of sensors with 5G networks
- Integrated D2D communication techniques for 5G networks
- Self-organisation and self-healing of IoT networks
- Data processing and anomaly detection for IoT networks
- Cross-layer design and optimization in IoT
- Relay, multi-hop, and cooperative communication in IoT
- Ubiquitous communication, routing protocols, and network selection in IoT
- Machine-type communications in 5G systems
- Emerging IoT applications in 5G networks
- Security issues and solutions for IoT in 5G networks
- Sensor deployment, placement, control and management issues
- Experimental results, prototypes and testbeds using sensors for 5G technologies

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