Call for Papers:

IoT Communications

We are in the midst of a technological transformation, where devices in the physical world at all scales and in all application domains are becoming smarter and more connected. Such an Internet of Things (IoT) promises to improve efficiency in transportation, power grids, buildings, retail, manufacturing, and agriculture, creating new opportunities in homes, the environment, healthcare, and smart cities. At the heart of IoT lies communications between the devices themselves and with the Internet, enabling the collection, exchange, and analysis of data to produce useful information and knowledge. IoT communications has many challenges and encompasses a multitude of design considerations, including the diversity of devices, energy and power constraints, communication rates, distances, noise, interference, latencies, timeliness, and many other factors.

This special issue aims to explore new technologies, systems, methodologies, and applications that relate to all aspects of IoT communications and systems. We encourage contributions from diverse fields such as smart cities, human-computer interaction, distributed systems, architecture, manufacturing, automation, smart grids, cyber-physical systems, ubiquitous computing, wearable computing, environmental monitoring, and wireless health.

Relevant topics for this special issue include, but are not limited to, the following:

- novel wireless and wired technologies,
- IoT communication protocols and standards,
- real-time issues in IoT communications,
- security and privacy in IoT communications,
- machine-to-machine (M2M) communications,
- architecture and composition,
- RFID systems,
- wearable systems,
- communications of urban IoT systems, and
- applications of IoT systems, including smart buildings, cities, grids, and health.

Guest Editors

- Robin Kravets, University of Illinois, Urbana-Champaign
- Steve Hodges, Microsoft Research
- Xiaofan Jiang, Columbia University
- Prabal Dutta, University of California at Berkeley

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Submission Information

Submissions should be 4,000 to 6,000 words long and should follow the magazine’s guidelines on style and presentation. For general author guidelines or submission details, see www.computer.org/pervasive/author.htm or email pervasive@computer.org.

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