

CALL FOR PAPERS

IEEE Internet of Things Journal Special Issue on Big Data Analytics and Management in Internet of Things

The Internet of Things (IoT) has generated a large amount of research interest across a wide variety of technical areas. These include the physical devices themselves, communications among them, and relationships between them. One of the effects of ubiquitous sensors networked together into large ecosystems has been an enormous flow of data supporting a wide variety of applications. Technical and management challenges abound in this area, including: sensor networks management, and data management, analysis, and visualization.

At the same time, new research, tools, and applications in the field of “big data” have been exploding as researchers find new ways of addressing the challenges posed by volume, velocity and variety of data. The convergence of IoT and big data creates new opportunities for interesting and high impact research. Many sensor network data flows exhibit high velocity, distributed streams of heterogeneous data, often from mobile sources, and varying quality. As with previous sources of big data, the challenges exceed the capabilities of existing technologies, processes, and infrastructures. This special issue will provide a forum for researchers to present ideas, innovations, and applications of big data analytics and management to IoT.

Topics of interests include (but are not limited to):

- Theoretical and computational models for IoT big data
- Methods, theory, and technology for storage and management of real world, observation and measurement data
- High performance, error tolerant, reliable data transport protocols and standards
- Security, privacy, quality, and trust issues in IoT
- Scalable and efficient streaming data structures, architectures, analysis, and visualization algorithms for IoT services and applications
- Distributed sensing, and heterogeneous big data integration and mining in IoT
- Energy efficient processing and high performance computing on the IoT big data
- Large stream processing, and very large scale semantic event processing for IoT

Important Dates

Submissions Deadline: **August 31th, 2014**

Revision Due: January 15th, 2014

Final Manuscript Due: February 31th, 2015

First Reviews Due: November 30th, 2014

Second Reviews Due/Notification: February 15th, 2014

Publication Date: April, 2015

Submission

The special issue seeks submission of papers that present novel original works on big data in the IoT. Solicited original submissions must not be currently under consideration for publication in other venues. The 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>. If you have any questions about paper submission or the special issue, please contact one of the Guest Editors.

Guest Editors

- **Huansheng Ning** (ninghuansheng@ustb.edu.cn), University of Science & Technology Beijing, China
- **David G. Belanger** (david.belanger@stevens.edu), Stevens Institute of Technology, USA
- **Yinglong Xia** (yxia@us.ibm.com), IBM Watson Research Center, USA
- **Vincenzo Piuri** (vincenzo.piuri@unimi.it), University degli Studi di Milano, Italy
- **Albert Y. Zomaya** (albert.zomaya@sydney.edu.au), University of Sydney, Australia