

IEEE Internet of Things Journal
Special Issue on
Data Science for the Internet of Things

Data Science has taken the business world by storm. Nowadays, improving business productivity and performance greatly depends on collection and analyzing data. Data science can be defined as an interdisciplinary field involving techniques to collect, store, analyze, manage and publish data.

In the Internet of Things (IoT), smartphones and household appliances can easily become sensor nodes and compose sensor networks, measuring environmental parameters and generating user interaction data. As the popularity of IoT increases, a surge of data lies in the future. The boom in data is not only going to require better infrastructure but smarter Data Science approaches. As sensor networks are mainly data-oriented networks, **data science techniques have been adopted to improve the IoT** in terms of data throughput, self-optimization and self-management. In fact, incorporating the lifecycle proposed by the data science will impact the future of the IoT, allowing researchers to reproduce scenarios, and optimize the collection, analysis and visualization of the data acquired by the IoT. Data Science for IoT can help overcome some global challenges, generating more accurate decisions. Data Science also allow integrating artificial intelligence; processing of data will become easier as devices will be able to self-learn about identifying patterns. The opportunities that can be exploited using IoT Data Science are growing more and more. With the current trend, IoT is one of the forerunners in data generation and this is exactly why Data Science will be required in IoT more than ever. One of the next key challenges will be integrating the IoT and Data Science

Topics include, but are not limited to the following:

- Management of IoT devices based on data knowledge
- Data-centric simulations of the IoT
- Methods for assessing IoT data quality
- Standards for IoT data discovery
- IoT Data Analytics
- Machine Learning for IoT
- Integrating IoT data with external data sources
- Data Science approaches for Smart Cities
- Data Science applications and services
- IoT application Orchestration;

Important Dates:

Submission Deadline: September 15, 2019

First Review Due: December 1, 2019

Revision Due: January 15, 2020

Acceptance Notification: February 15, 2020

Final Manuscript Due: March 1, 2020

Publication Date: 2020

Submission Guidelines:

Authors need to follow the manuscript format and allowable number of pages described at: <http://iee-iotj.org/guidelines-for-authors/>. To submit a manuscript for consideration for the special issue, please visit the journal submission website at: <https://mc.manuscriptcentral.com/iot>.

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