

IEEE Internet of Things Journal

Special Issue on

Methods and Infrastructures for Data Mining at the Edge of Internet of Things

The Internet of Things (IoT) enables the interconnection of new cyber-physical devices that generate significant traffic of distributed, heterogeneous and dynamic data at the network edge. Since several IoT applications demand for short response times (e.g., industrial applications, emergency management, real-time systems, health care systems) and, at the same time, rely on resource-constrained devices, the adoption of traditional Data Mining techniques is neither effective nor efficient. Therefore, conventional Data Mining techniques need to be adjusted for optimizing response times, energy consumption and data traffic while still providing adequate accuracy as required by the IoT applications. In this Special Issue, new Data Mining approaches particularly tailored for the IoT scenario will be investigated, in particular with respect to the promising, emerging novel distributed computing paradigm of Edge Computing. The focus of the special issue is therefore on high-quality original papers aiming at demonstrating **effective and efficient Data Mining approaches at the IoT Edge**, which at the same time considers data, device and infrastructure perspectives and related issues. It is worth noting that submitted papers need to show significant experimental results based on open dataset (or dataset to be made open along with the papers) and/or real experimentations, possibly complemented by simulation.

Topics include, but are not limited to the following:

- Edge-based platforms for IoT Data Mining
- Adapting Data Mining algorithms and methods to Edge Computing
- Novel Edge-based data mining methods and algorithms for IoT
- Novel Edge-based machine/deep learning methods and algorithms for IoT
- Simulation of Edge IoT mining
- Methodologies for driving Data Mining-based IoT Edge systems development
- Security, privacy and trust for Data Mining at the IoT Edge
- Real/Industry applications and systems of Data Mining at the Edge

Important Dates

Submission Deadline: November 1, 2020
First Review Due: January 15 2021
Revision Due: March 1, 2021

Sec. Reviews Due/Notification: March 31, 2021
Final Manuscript Due: April 15, 2021
Publication Date: 2021

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>.

Guest Editors:

Giancarlo Fortino, University of Calabria, Italy, email: g.fortino@unical.it
Rajkumar Buyya, University of Melbourne, Australia, email: rbuyya@unimelb.edu.au
Min Chen, Huazhong University of Science and Technology, China, email: minchen2012@hust.edu.cn
Francisco Herrera, Universidad de Granada, Spain, email: herrera@decsai.ugr.es