

Special Issue on Edge Intelligence in Internet of Things using Machine Learning

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Internet of Things (IoT) has been founded on the basis of manufacturing billions of real-world physical objects, and mobile devices connected to the Internet. With the rise of connected devices, the idea of edge computing has gained prominence, and has been broadly recognised. Edge computing provides computing, analysis, storage, and control nearer to the edge of the network, to resolve the issues of scalability, and latency.

However, edge computing has problems tackling diverse IoT settings. These diverse applications produce an enormous amount of big data to be processed efficiently. The existing architectures face several challenges, and big data processing is the main challenge. Edge computing fails in diverse IoT settings because it is flawed in the requirements to handle intelligently at edges. In combination with artificial intelligence (AI), it is envisioned that AI-enabled edge computing can overwhelm the evolving encounters by liberating the prospect of edge data. Novel skills, and innovations extend the technologies from additional effective computing models to smarter practices for bringing machine learning to the edge. Edge data is required to be processed using machine learning. Machine learning technologies have fascinated scientists to achieve edge computing in IoT settings. Research on edge intelligence for IoT using machine learning is still in its initial phase, and it requires an instant response. At present, edge computing and machine learning/deep learning technology have been applied to all aspects of our life, such as education, engineering, management, and economy.

The aim of this Special Issue is to collate original research articles, as well as review articles, investigating the significance of machine learning in edge computing to preserve the IoT systems. With this Special Issue, we hope to discover the promises of edge intelligence using machine learning in IoT-enabled edge computing. In addition, we also wish to come across innovative solutions with useful insights, and results. Submissions discussing informative, and effective techniques that can support efficient edge intelligence in IoT are highly encouraged.

Potential topics include but are not limited to the following:

- ▶ Challenges, opportunities, and novelties using machine learning for edge computing
- ▶ Intelligent, parallel, and distributed edge computing architectures for IoT systems
- ▶ Edge intelligence in cognitive IoT
- ▶ Scalable, and adaptable edge computing using AI, and cost-efficient edge intelligence framework
- ▶ Efficient edge/fog-cloud integration for IoT applications
- ▶ Advanced IoT system modelling, and advanced data modelling architectures using edge intelligence
- ▶ Advanced scheduling methods for efficient training, inference, and caching
- ▶ Big data analytics in edge computing, and emerging architectures for big data management for IoT
- ▶ Big data analytics using deep learning, and reinforcement learning
- ▶ Advanced scheduling methods for big data of edge/fog computing
- ▶ Integration of ML, big data, IoT, and edge computing technologies
- ▶ New presentations for edge AI, for instance, Industry 4.0, autonomous driving, smart grid, networked robots, Internet of Energy (IoE)
- ▶ Big data analytics using deep learning with edge node for AI Education
- ▶ Edge computing, and deep learning for engineering management, and multimedia application

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.hindawi.com/submit?specialIssue=967133>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Mian Ahmad Jan, Abdul Wali Khan University, Mardan, Pakistan
mianjan@awkum.edu.pk

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Muhammad Usman, Federation University, Melbourne, Australia
m.usman@federation.edu.au

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muhammad.babar@iqraisb.edu.pk

Xingwang Li, Henan Polytechnic University, Henan, China
lixingwang@hpu.edu.cn

Muhammad Bilal, Hankuk University of Foreign Studies, Yongin-si, Republic of Korea
mbilal@hufs.ac.kr

Submission Deadline

Friday, 2 April 2021

Publication Date

August 2021