

Machine Learning and Optimization for Edge Computing based Internet-of-Things

Guest Editors:

Dear Colleagues,

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Prof. Bo Cheng

Beijing University of Posts
and Telecommunications,
China
chengbo@bupt.edu.cn

Prof. Shuai Zhao

Beijing University of Posts
and Telecommunications,
China



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Email:

emily.lee@front-sci.net



The concepts of Internet of Things (IoT) are providing services across different sectors including smart cities, healthcare, manufacturing, agriculture, industrial internet, automobile and smart supply chains. However, the explosive growth of smart devices, applications, and volume of data traffic becomes a major concern in IoT environment, which is important to address before widely deploying the IoT services. Edge computing is a capable technology that enhances the quality and performance of the IoT services. The edge computing technology perfectly fits the architecture and features of IoT systems. Edge computing is the modern, distributed computing architecture that brings data storage and computation closer to the data source. This helps save bandwidth and improve the response time. Simply put, edge computing involves fewer processes running in the cloud. It also moves those computing processes to edge devices, such as IoT devices, edge servers, or users' computers. This way of bringing computation closer, or at the network's edge, reduces long-distance communication between a server and a client. Therefore, it reduces bandwidth usage and latency. Edge computing, over the years, has become an important architecture to support distributed computing and deploy storage and computation resources close to the same geographical location as the source. Although it employs decentralized architecture, which can be challenging and requires continuous control and monitoring, edge computing is still effective in solving advancing network issues like moving large