



## Special Issue on AI-empowered Internet of Things for Smart Cities

One of the key enablers for Smart Cities is the Internet of Things (IoT), which can exploit state-of-the-art communication technologies to support advanced services. However, IoT devices and management systems are typically manufactured by multiple vendors with multiple processes and standards. Furthermore, these devices will generate large amounts of data from different sources and types of sensors, which cannot be effectively processed by traditional methods. In addition, the unstructured data in IoT plays an important role for building smart cities, while transmitting and processing these unstructured data consume substantial energy. Therefore, the data transmission and processing in IoT for smart cities should be performed in a more intelligent manner. Recently, Artificial Intelligence (AI) has recently emerged as a powerful weapon that supports very efficient data analysis and make accurate decisions on service provisions in various kinds. Combining IoT with advanced AI technology can make the city smarter. AI-Empowered solutions, such as deep learning and reinforcement learning, can better process the vast amounts of real-time data that stream from IoT devices to support intelligent services for smart cities. In light of this potential, this special section provides a venue to comprehensively cover algorithms, frameworks, technologies, and applications of AI-empowered Internet of Things for smart cities.

The objective of this special section is to solicit high-quality original research papers, which address open issues in AI-empowered Internet of Things for smart cities from both academia and industry. Review articles are also encouraged.

The topics of interest include, but are not limited to:

- AI-empowered IoT based system design, modeling, and evaluation
- Simulation tools and methodologies of AI-empowered IoT
- AI-empowered IoT based communication protocol for smart cities
- AI-empowered IoT framework in distributed large scale systems
- AI-empowered IoT security, privacy and trust for smart cities
- AI-empowered IoT based big data process and application for smart cities
- AI-empowered IoT approaches for Intelligent Transportation Systems
- AI-empowered IoT based testing and evaluation tools for smart cities
- AI-empowered IoT resource management models and solutions
- AI-empowered IoT based intelligent sensing and network communication
- Deep and reinforcement learning for IoT
- New approaches for combining AI with IoT
- Future AI-empowered IoT for smart cities and green cities
- AI/ML and bias systems
- AI/ML/DL data mining and data analytics in networking
- AI/ML/DL in 5G mobile networks for smart cities

### Important Deadlines:

- Manuscript Submission: August 1, 2020
- First Notification: November 15, 2020
- Submission of revised manuscript: December 15, 2020
- Final notification: February 15, 2021

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Please select "AI-empowered Internet of Things for Smart Cities" in the TOIT Manuscript Central Website

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