

Special Issue on
**Intelligent Network Management for 5G
and Beyond**

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As a result of growing user demand, which has been driven by the rapid implementation and dissemination of various applications, mobile operators are being forced to enhance their network infrastructures. Such network environmental change requires a complete rethinking of network deployment. Therefore, many 5G standardization activities remain ongoing, despite the first commercial deployments of 5G networks already underway. In the future, it is perhaps inevitable that users will demand greater global coverage, higher data rates, and ubiquitous availability of new and future Internet services and applications. To deliver these expectations, current 5G technologies must be further developed in line with 6G concepts.

With each new generation, the complexity of network management increases as a result of a higher number of users, a more complicated infrastructure, and the lack of spectrum. In order to cope with this problem, 5G/6G networks must possess intelligent self-organizing capabilities to automate the key processes involved in network operation. Therefore, one of the key drivers of 5G/6G development is the overall improvement of network management, which is to be achieved by leveraging the state of the art in software defined networking (SDN), cloud computing, blockchain, and artificial intelligence (AI).

This special issue aims to bring together academic and industrial researchers to identify and discuss technical challenges and recent results in intelligent mobile network deployment and management and to present novel applications envisioned in the era of 5G/6G and the Internet of Things (IoT). We invite researchers to contribute original research and review articles that address important challenges related to AI-enabled 5G/6G networking.

Potential topics include but are not limited to the following:

- ▶ Novel AI-based architectures, frameworks, and testbeds for 5G and beyond.
- ▶ Intelligent spectrum management in 5G/6G using AI-assisted blockchains
- ▶ Mobile edge computing for blockchain and AI-enabled 5G/6G networks
- ▶ Cloud-based intelligent functions virtualization for 6G
- ▶ Intelligent energy efficient ubiquitous connectivity for IoT applications
- ▶ AI and SDN-based resource management for 6G
- ▶ AI and blockchain-enabled security and privacy in 5G/6G mobile networks
- ▶ Innovative AI and 6G-enabled user applications
- ▶ AI applications for the physical layer of wireless communications
- ▶ Open spectrum market for intelligent 5G/6G communications

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/wcmc/aaigb/>.

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

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