



Energy-Efficient B5G/6G Ultra-Dense Networks: Challenges and Solutions

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Message from the Guest Editors

Recently, there has been a rapid increase in the number of base stations (BSs) to support the massive amount of mobile data traffic and explosively increasing number of mobile devices in B5G/6G wireless communication systems and next-generation Internet of Things (IoT) networks. BSs may be more densely deployed to support the enormous number of mobile devices. However, there still exist several fundamental challenges for minimizing network energy consumption, detrimental interferences, and frequent handovers. Thus, energy-efficient ultra-dense networks are being proposed to satisfy the various requirements of future wireless communication systems.

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

- Energy-efficient transmission/reception design
- Medium access control
- Scheduling algorithms
- Network operation and management
- Device-to-device Communications
- Uncoordinated and massive random access
- Hybrid beamforming
- Massive MIMO
- Stochastic geometry-based network modeling
- Energy-efficient fronthaul/backhaul
- Machine-learning-based network control
- UAV-based traffic offloading
- UAV-based outage compensation





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Message from the Editor-in-Chief

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