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Challenges and Opportunities Presented by Federated Learning in Mobile Computing

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Deadline for manuscript submissions:
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Message from the Guest Editors

Due to the increasing need for decentralized and privacy-preserving computation, federated learning (FL) has become a pivotal technique in the realm of mobile computing. Nevertheless, there remain challenges in the deployment of FL in mobile computing, such as issues related to scalability, privacy and security, energy efficiency, and communication efficiency and ensuring model robustness under heterogeneous settings. With this Special Issue, we seek high-quality submissions that highlight recent advances in the field of federated learning in mobile computing. Research areas of interest include (but are not limited to) the following:

- Federated learning algorithms for mobile devices;
- Communication-efficient federated learning;
- Energy-efficient federated learning;
- Challenges in non-IID data distributions in FL;
- Challenges in heterogeneous data and devices in FL;
- Scalability and resource management in federated learning;
- Machine learning and AI for wireless communications;
- B5G networks and federated learning;
- Security and privacy issues in mobile computing.

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Message from the Editor-in-Chief

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