

Special Issue

5G and Beyond Mobile Networks for the Metaverse: Challenges and Opportunities

Message from the Guest Editors

The evolution of 5G networks and emerging mobile computing technologies has unlocked new possibilities for the Metaverse, enabling immersive, interactive, and large-scale virtual environments. As the Metaverse continues to expand, network performance, scalability, and intelligence become critical factors in delivering seamless and high-quality experiences to millions of concurrent users. To meet these demands, advanced Mobile Edge Computing (MEC), fog computing, and AI-driven networking are being integrated into 5G infrastructures to reduce latency, enhance processing efficiency, and optimize real-time data transmission. These technologies empower intelligent resource management, real-time analytics, and adaptive connectivity, ensuring that Metaverse applications. This Special Issue seeks original research articles and review papers that explore innovative network architectures, AI-enhanced mobile systems, and next-generation computing paradigms that leverage 5G for Metaverse applications. We encourage interdisciplinary contributions that focus on the intersection of mobile networks, edge/fog computing, AI, and immersive technologies to advance Metaverse connectivity.

Guest Editors

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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