

Special Issue

Advanced Millimeter-Wave and Terahertz Hardware for 6G Systems: From Devices and Characteristics to Integrated Networks

Message from the Guest Editor

This Special Issue of *Electronics*, titled "Advanced Millimeter-Wave and Terahertz Hardware for 6G Systems: From Devices and Characteristics to Integrated Networks". A key focus is on the synergistic role of advanced simulation methodologies, e.g., multi-physics and multi-scale modeling, alongside precise experimental characterization techniques for validating the performance of novel transistors, antennas, metamaterials, on-chip components, and packaging solutions. Topics of interest extend to the development of sophisticated system architectures that efficiently integrate these high-frequency devices, including innovative beamforming networks, reconfigurable intelligent surfaces (RIS), and antenna-in-package (AiP) designs. We also welcome studies on novel materials, fabrication processes, and the critical interplay between device performance and 6G-specific use cases like holographic beamforming, joint communication and sensing, and ultra-massive MIMO.

Guest Editor

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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 guestedited by leading experts in selected topics of interest.

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