Special Issue

RF and Power Electronic Devices and Applications

Message from the Guest Editors

The advent of 5G and beyond 5G (B5G) wireless networks is revolutionizing connectivity, enabling faster speeds and significantly enhancing the quality of life through applications like smart cities, autonomous vehicles, and the Internet of Things (IoT). Concurrently, electric vehicles (EVs) are capturing an increasing share of the market, promising a more efficient and sustainable future by reducing carbon emissions and reliance on fossil fuels. These advancements create substantial demands for high-performance semiconductor devices, particularly in the fields of RF and power electronics, where wide-bandgap (WBG) devices are playing a crucial role in achieving superior efficiency and reliability.

This Special Issue aims to gather cutting-edge developments in novel RF and power electronics devices and their applications. We welcome contributions covering, but not limited to, the following topics:

Wide-bandgap devices (GaN, Ga2O3, AlN, etc.) and applications;
High-frequency RF/mmWave device and applications;
Advanced device processing;
Device reliability;
Device characterization;
Gate driver design for semiconductors;
WBG-based power converters.

Guest Editors

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