Special Issue

Antenna and Propagation Technologies for 5G/6G Communication

Message from the Guest Editor

Antenna and propagation technologies are the backbone of 5G/6G communication, which will play a pivotal role in shaping the future of wireless networks. Antennas act as conduits for data transmission, requiring advanced designs like MIMO systems and beamforming to meet the escalating demands of increased bandwidth and energy efficiency in the 5G and emerging 6G landscape. These technologies enable higher data rates and lower latency, essential for applications ranging from augmented reality to the IoT.

In parallel, propagation technologies govern the ways in which electromagnetic waves traverse different mediums, impacting signal coverage and reliability. With the advent of 5G and the impending launch of 6G, addressing challenges such as higher frequencies and diverse deployment scenarios will necessitate innovative propagation techniques like beam steering and dynamic spectrum sharing. The integration of these advancements optimizes signal propagation and mitigates interference, ensuring the efficient functioning of next-generation networks.

As 5G evolves and 6G looms on the horizon, the seamless synergy between antenna and propagation technologies remains instrumental.

Guest Editor

Dr. Arpan Desai

International College of Semiconductor Technology, National Yang-Ming Chiao Tung University, Hsinchu 1001, Taiwan

Deadline for manuscript submissions

closed (15 August 2025)

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/193571

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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