

Special Issue

Novel Antenna Arrays in 5G/6G Communication

Message from the Guest Editors

This Special Issue aims to present and disseminate the latest advances in microwave and millimeter-wave antenna arrays, along with challenges in their implementation, design, and testing. High-gain arrays above 30 dBi/dBci with high efficiency pose a challenge due to the potential high losses in the feeding and beamforming networks for scanning arrays. The phase-shifter-based feeding network can be costly for high-gain/large arrays. As a result, techniques to reduce the insertion loss and/or the cost of the feeding network are highly desirable. Moreover, measuring the scanning array can be extremely time-consuming, due to the repeated testing required by the multi-beam array. We consider contributions addressing the above-mentioned challenges. Topics of interest for publication include, but are not limited to, the following:

- linearly and circularly polarized high-gain arrays
- dually polarized arrays, reconfigurable arrays
- low-sidelobe arrays, multi-beam arrays
- sparse/thinned scanning arrays
- multi-beam testing
- (phaseless) near-field measurement
- efficient feeding network technology
- beamforming networks for planar arrays.

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