

Antenna Systems and Electromagnetic Techniques

A01 Electromagnetic theory and numerical front-end techniques

A02 Antenna interactions and coupling

A03 Antenna systems and architectures

A04 Imaging, scattering, diffraction

A05 Electrically small antennas and wearable antennas

A06 Array antennas, beam-forming, reflect arrays and transmit arrays

A07 Adaptive and reconfigurable antennas, active and integrated antennas

A09 MIMO, antenna diversity, smart and signal processing antennas

A10 Lens antennas and radomes

A11 Advanced RF materials, metamaterials, selective surfaces and EBG

A12 Reconfigurable Intelligent Surfaces (RIS)

A13 Millimeter-wave, submillimeter-wave and THz antennas

A14 Wireless power transfer and energy harvesting antennas

A15 Nano, Plasmonic and Optical antennas

A16 Other advanced antenna topics

RF and Microwave Technologies for Wireless, IoT, and Emerging Applications

R01 Semiconductor devices and component modeling for RF applications

R02 Monolithic and hybrid integrated active circuits

R03 Monolithic and hybrid passive components and circuits

R04 Receiver and transmitter architectures

R05 Novel waveguides and new phenomena in waveguides

R06 RF packaging and package modeling

R07 RFID systems

R08 RF MEMS, MOEMS and Microsystems

R09 Electronic warfare

R10 Emerging areas including nanotechnology and biomedical applications

R11 Wireless and cellular architectures, components, and circuits

R12 Wireless sensor networks and their applications in internet of things (IoT)

R13 Wireless power transfer techniques and energy harvesting

R14 Military and space applications of RF/Microwaves

R15 AI/ML for RF to mm-wave

R16 Other advanced RF techniques

Advancements in Wireless Propagation and Channel Modeling

P01 Tropospheric propagation

P02 Outdoor/indoor/urban propagation

P03 Satellite propagation modeling

P04 Multi-link MIMO and cooperative channels

P05 Vehicle-to-vehicle and vehicle-to-infrastructure channels

P06 Channel-sounding and channel-estimation techniques

P07 Millimeter- and sub-millimeter- wave propagation

P08 UWB propagation

P09 Body-centric propagation

P10 Other advanced propagation topics

Measurement Techniques for Radar, Antennas, and EMI/EMC Applications

M01 Measurement of radar scattering and radar calibration techniques

M02 Advances in near-field, far-field, compact and RCS test ranges

M03 EMI/EMC/PIM chamber design, measurements and instrumentation

M04 Other advanced measurement topics

Biomedical Applications and Health Effects

B01 Electromagnetic field interactions with living tissue

B02 Antennas, devices, circuits, and systems for characterizations of biological samples

B03 Radar-based physiological sensors and their application

B04 Antennas, instrumentation, and systems for diagnostic and therapeutic applications

B05 MRI and microwave/mm-wave imaging

B06 Wireless, wearable, and implantable devices for health monitoring

Photonics and Optical Systems

P01 Optical networks and systems

P02 Fiber optics devices and subsystems

P03 Detection, sensing, and energy

P04 Biophotonics and medical optics

P05 Circuits and systems for THz applications

P06 Other advanced photonics topics