TECHNICAL PAPERS AND ABSTRACTS

IEEE COMCAS offers seven technical tracks welcoming high quality research, tutorial, and application papers or abstracts. All submitted papers and abstracts will be peer reviewed. Accepted ones will be published in the IEEE COMCAS 2021 Proceedings. Presented full papers will be submitted for inclusion in IEEE Xplore®.

LIST OF TOPICS

Communications and Sensors

Beyond 5G – Systems & Technologies
AI, Machine Learning, Deep Learning in Communications and Sensors
Big Data in Communication Networks
MIMO & Space-Time Coding Technologies
5G systems & Millimeter Wave Propagation
Cognitive Radio & Spectral Sharing
Communications Security
First Responder/Military Communications
Green Communication
Internet of Things
Long Range Low Power Networks
Micro/Pico/Femtocell Devices and Systems
Modulation & Signal Processing Technologies
On-Body and Short Range Communications
Radio over Fiber & Optical/Wireless Convergence
Sensor Networks and Technologies
Software-Defined Radio & Multiple Access

Antennas, Propagation, and Scattering

Antenna Theory and Design
Smart Antennas, Beamforming and MIMO
Wave Propagation and Channel Modeling
Wave Scattering and RCS
NanoEM, Plasmonics, and Applications
Metamaterials, FSS and EBG
EM Field Theory and Numerical Techniques
EM Interference & Compatibility, SI
Spectrum Management and Monitoring
ELF, RF, µWave, mmW and THz Measurements

Electronic Packaging & Thermal Management (P&TM)

P&TM of Electronics on Device and PCB Levels
Microelectronics P&TM on Chip Level
P&TM of RF Devices
P&TM of Photonics and Optics
P&TM of Medical Devices
Structural, Joining, and Coating Materials
Destructive and Non-Destructive Testing
Advanced Methods for Thermal Management
Numerical Modeling of Thermal Management
Reliability of Electronic Devices

Biomedical Engineering

Advances in MRI: Technology, Systems and Applications
Medical RF, MW & MMW Applications and Devices
Medical Imaging and Image Processing
Acousto-Optic Technologies
Novel Therapeautic Modalities
Biomedical Systems and Applications
Effects of RF and MW on Biological Tissues

RF/MW Devices and Circuits, RFICs

Solid-State Devices, RFICs
µWave, mmW and Sub-mmW Circuits/Technologies
Nano and THz Devices/Technologies
Microwave Photonics
Passive Components and Circuits
Filters and Multiplexers
Ferroelectrics, RF MEMS, MOEMS, and NEMS
Active Devices and Circuits
RF Power Amplifiers and Devices
Tunable and Reconfigurable Circuits/Systems
Analog/Digital/Mixed RF Circuits
Circuit Theory, Modeling and Applications
Interconnects, Packaging and MCM
CAD Techniques for Devices and Circuits
Emerging Technologies
Internet of Things Devices

Microwave Systems, Radar, Acoustics

Aeronautical and Space Applications
RFID Devices/Systems/Applications
Automotive/Transportation Radar & Communications
Environmentally Sensitive (“Green”) Design
UWB and Multispectral Technologies & Systems
Emerging System Architectures
Modelling Techniques for RF Systems
Radar Techniques, Systems and Applications
Sonar Systems and Applications
Wireless Power Transfer & Energy Harvesting
Terahertz Systems
AI, Machine Learning, Deep Learning in Microwave, Radar, and Acoustic Systems

Signal Processing (SP) and Imaging

Microwave Imaging and Tomography
Acoustic/Sonar Imaging and Techniques
Radar SP and Imaging, SAR, ATR
MIMO SP for Radar
Ground and Foliage Penetration Systems
Signal Acquisition and Sensor Management
DF, Emitter Location, Elint, Array Processing
Target Detection, Identification and Tracking
Data Fusion
Time Domain and UWB SP
AI, Machine Learning, Deep Learning in Signal and Image Processing