On behalf of the IEEE COMCAS 2023 Steering Committee, it is our pleasure to launch the 9th International IEEE Conference on Microwaves, Communications, Antennas, Biomedical Engineering and Electronic Systems (IEEE COMCAS 2023).

In 2023 the international IEEE COMCAS will continue to evolve and provide an advanced multidisciplinary forum for the exchange of ideas, research results, and industry experience in a range of key areas i.e., microwaves, communications and sensors, antennas, biomedical engineering, RF and microwave devices and circuits, thermal management and electronic packaging, signal processing and imaging, as well as radar, acoustics and microwave system engineering.

In its entirety the event includes a technical program, industry exhibits, and guest presentations from global experts on recent academic and industry advancements.

In launching the 2023 event, we would also like to welcome you to the sunshine of the eastern Mediterranean, in Tel Aviv. As a cosmopolitan city of stunning views and endless innovation Tel Aviv is a center that resonates with an energized atmosphere, streets of storied history, and an internationally recognized nightlife.

Taking place 6-8 November 2023 in Tel Aviv, Israel, at the David Intercontinental Hotel by the Mediterranean Sea; IEEE COMCAS will continue a biennial series tailored to maximize professional networking, support the candid exchange of ideas, and develop a range of enduring opportunities.
### 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)
- Chip, Package and PCB – Design, Advanced Materials and Technologies
- Chip & Board Level Assembly
- Advanced Packaging – 2.5D, 3D and Heterogenous Integration
- 3D Printing & Additive Manufacturing of Electronics
- Electro Photonics Packaging
- Adhesives, Molding & Encapsulation – Materials & Technologies
- Soldering & Brazing for Electronic Packaging
- Bio Medical Packaging
- Plating & Coating – Materials & Technologies
- Destructive and Non-destructive Testing
- Thermal Management in Electronic Systems – Methods, Modeling and Solutions
- Connectors, Cables & Routing
- Inspection – Technologies & Methods
- Reliability in Electronic Systems

#### Biomedical Engineering
- Big Data in Medicine
- Artificial Intelligence, Machine Learning, Deep Learning
- Biomedical Systems and Applications
- Advances in Medical Imaging Technology
- Medical RF, MW & MMW Applications and Devices
- Medical Image Processing
- Acousto-Optic Technologies
- Novel Therapeutic Modalities
- 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
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