

IEEE MICROWAVES, ANTENNAS AND PROPAGATION CONFERENCE

December 09-13, 2024

Hyderabad International Convention Centre, Hyderabad

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IEEE Microwave Antennas and Propagation Conference (MAPCON) is a joint flagship conference of IEEE MTT and IEEE AP societies in India. This mega annual event of the RF, Microwave and Antenna community provides an international platform to researchers, working professionals, academicians and industries in these domains to showcase their state-of-the-art in research/technologies to co-workers/peers. MAPCON 2024, the 3rd edition of this series; will be held from 9th to 13th December 2024 at Novotel Hyderabad International Convention Centre, Hitec City, Hyderabad and hosted by IEEE Hyderabad Section MTT-S/AP-S/EMC-S Joint Chapter. MAPCON 2024 will feature technical sessions, poster sessions, special sessions, invited talks, workshops and tutorials. Focused tracks on Young Professionals, Women in Engineering, SIGHT, student design contests, Start-up India, India Semiconductor Mission and Aerospace & Defence Industry Focus etc. will add to the charm of the conference. Eminent professionals from International Space and Defence Establishments, National Research Organizations, Academia, and Industries will deliver expert talks, tutorials and organize special sessions related to recent developments in the domain.

CALL FOR PAPERS

Authors are invited to submit their original research work in form of technical paper (3-4 pages in length) in the following areas (but not limited to)

Track-I: RF & Microwave Components, Circuits and Systems

- ▶ High power microwave tubes, Gyatron
- ▶ Evolution of semiconductor technologies in RF, Microwaves, mm-wave, THz
- ▶ Passive components and circuits
- ▶ Active devices and circuits
- ▶ RFICs and MMICs
- ▶ Novel waveguides and new phenomena in waveguides
- ▶ Plasmonic devices and their applications
- ▶ Microwave, millimeter-wave and THz systems
- ▶ Radar, SAR and microwave imaging
- ▶ Microwave materials and processing
- ▶ Packaging, MCM and 3D manufacturing techniques
- ▶ Wireless and cellular architectures, components and circuits
- ▶ Mixed signal and wireline ICs
- ▶ Payload technologies for satcom, navigation and remote sensing
- ▶ Medical/industrial applications of microwaves
- ▶ RF systems for emerging telecommunication infrastructure
- ▶ RF technologies for space and defence applications
- ▶ Automotive radars
- ▶ Microwave ferrite, ferroelectric and MEMS components

Track-II: Antenna & Propagation

- ▶ Phased array antennas
- ▶ Reflector and reflect-array antennas
- ▶ Horn antennas & feed components
- ▶ Planar antennas
- ▶ Frequency selective surfaces
- ▶ Satellite antennas and payloads
- ▶ Aircraft antennas
- ▶ Antennas for seekers and defence applications
- ▶ Ultra wide band and multi-band antennas
- ▶ RFID antennas and systems
- ▶ Scattering and diffraction
- ▶ Dielectric resonator antennas
- ▶ Metamaterial, metasurface and EBG antennas
- ▶ Reconfigurable antennas and arrays
- ▶ EM theory and computational electromagnetics
- ▶ Adaptive, active and smart antennas
- ▶ MIMO and 5G antennas
- ▶ Millimeter-wave & terahertz antennas
- ▶ Embedded and wearable antennas
- ▶ Beamforming techniques
- ▶ Propagation studies and experiments

Track-III: Emerging Technologies and Applications

- ▶ Microwave remote sensing applications
- ▶ Quantum devices, systems and applications
- ▶ Microwave photonics and nano technology
- ▶ RF energy harvesting and wireless power transfer
- ▶ Software defined /cognitive radio
- ▶ On chip antennas
- ▶ 3D printed microwave antennas and structures
- ▶ AI/ML for RF & mm-wave
- ▶ CubeSat/ NanoSat technologies
- ▶ mm-wave/ THz imaging for bio-medical applications: Invasive/ Non-invasive surgery
- ▶ Quantum microwave and quantum radar

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Track-IV: Tera-Hertz & Photonics Technologies

- ▶ THz Sources
- ▶ THz Detectors
- ▶ THz spectroscopy
- ▶ THz Imaging
- ▶ THz Components
- ▶ THz applications: Time domain Co-linear and Non-co-linear terahertz spectroscopy
- ▶ Optical-pump-THz-probe Spectroscopy
- ▶ THz sensing and analysis
- ▶ THz wireless communication
- ▶ THz remote-sensing
- ▶ 3D THz tomography system
- ▶ Industrial applications of THz
- ▶ Space Communication
- ▶ Cutting-edge THz technologies
- ▶ Microwave, millimeter-wave THz & Photonics systems
- ▶ Semiconductor technologies in RF, Microwaves, mm-wave, THz & Photonics
- ▶ Quantum Key Distribution (QKD)
- ▶ Photonic Radars
- ▶ Free space optical secured communication, Quantum Radar, etc

Track-V: 5G/6G Research

- ▶ RF technologies for 5G/6G and beyond
- ▶ MIMO and 5G antennas
- ▶ Metamaterials
- ▶ Propagation studies and experiments
- ▶ Reconfigurable antennas and arrays
- ▶ Wireless and cellular architectures
- ▶ Components and circuits
- ▶ Communication devices and systems
- ▶ Wireless & Mobile Communications
- ▶ Intelligent (and holographic) surfaces
- ▶ Non-Terrestrial Communications
- ▶ Underwater Communications
- ▶ Smart Grid Communications
- ▶ Machine Learning for Communications
- ▶ Quantum communications and computing
- ▶ Molecular, biological and multiscale communications
- ▶ Integrated sensing and communications

Track-VI: Measurement Techniques

- ▶ Advances in antenna measurements
- ▶ Compact range, near field, far field, drones etc.
- ▶ Microwave holography
- ▶ High power tests (Multipaction / PIM)
- ▶ Microwave measurements
- ▶ Electromagnetic interference and compatibility (EMI/EMC)
- ▶ Characterization of antennas/payloads/ radomes
- ▶ Microwave absorbers



IMPORDANT DATES

Paper Submission starts

15th April 2024

Paper Submission ends

1st July 2024

Notification of Acceptance

15th September 2024

Camera ready paper submission

31st October 2024

Exhibition/Workshop/Tutorial Proposals

15th October 2024

AWARDS



**MAPCON Best Paper Award
(Academia & Industry)**



**MAPCON YP Best Paper Award
(Male & Female)**



**MAPCON Best Student Paper Award
1st Position**



**MAPCON Best student paper Award
2nd Position**



MAPCON Student Design Contest Award



MAPCON Travel Grants

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