

Call for Papers

# IEEE COMCAS2021

**1 -3 November 2021**  
David Intercontinental Hotel  
Tel Aviv, Israel

INTERNATIONAL CONFERENCE ON MICROWAVES, COMMUNICATIONS, ANTENNAS, BIOMEDICAL ENGINEERING & ELECTRONIC SYSTEMS



On behalf of the **IEEE COMCAS 2021** Steering Committee, it is our pleasure to launch the 8th International IEEE Conference on Microwaves, Communications, Antennas, and Electronic Systems (IEEE COMCAS 2021).

In 2021 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., 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.

Held from 1-3 November 2021 in Tel Aviv Israel, at the David Intercontinental Hotel by the Mediterranean Sea; IEEE COMCAS is a biennial series tailored to maximize networking, support the candid exchange of ideas, and develop a range of enduring opportunities.

Our Technical Program is paired with a Technical Exhibition that offers companies and agencies a unique opportunity to visit Israel, present relevant products and quality services, and pursue key networking opportunities. Attendees can take part and engage with new contacts, create business opportunities and solidify contracts for the future.

IEEE COMCAS 2019 was our greatest success to date with near 1900 attendees, over 240 lectures in 88 sessions, alongside participants from 39 countries, and exhibitors from more than 100 industry vendors. Following a year of great transformation, we are confident that IEEE COMCAS 2021 will transcend our expectations on both a professional and personal level.

We invite you to join us in Tel Aviv on 1-3 November to take an active part in IEEE COMCAS 2021 and be a part of its success.

## IMPORTANT DATES

May 3, 2021

**Abstract/Paper Submission for initial reviews**

June 1, 2021

**Submission of proposals for workshops, short courses and tutorials**

July 22, 2021

**Accept/revise/reject notifications sent to authors**

September 1, 2021

**Final revised manuscripts submission deadline**

## WORKSHOPS, SHORT COURSES, AND TUTORIALS

IEEE COMCAS 2021 will feature invited talks, technical lectures and short courses given by distinguished international experts.

Additional suggestions for workshops and short courses will be considered. For suggestions, please provide a short description of your proposal, including a list of potential talks and speakers, indicating which have already confirmed. Proposals should be submitted to [comcas@ortra.com](mailto:comcas@ortra.com)

## GRANTS & AWARDS

### *The Mini-Circuits Harvey Kaylie Best Paper & Best Student Paper Awards*

Awards (1,800 USD each) will be granted on the third conference day.

### *The European Microwave Association (EuMA) Student Paper Awards*

Two awards (1,000 EUR each) will be granted on the third conference day.

### *Student/Young Scientist Travel Grants*

IEEE COMCAS 2021 encourages participation of young scientists to present papers at the conference.

Several travel grants will be provided on a competitive basis. Each grant is up to 500 USD.

## SPECIAL EVENTS

### *Young Professionals: Entrepreneurship in Semiconductors*

IEEE COMCAS 2021 will again host the popular innovation session by IEEE YP and the ACRC - Advanced Circuits Research Center of the Technion. The special session will feature successful technology and innovation leaders of the Israeli high-tech industry. A perfect place to broaden your professional network while enjoying Tel Aviv.

### *Women in Engineering (WIE)*

Historically, women represent only 10–20% of the overall engineering work force. So how can one make engineering more attractive to young women? How can one increase the number of women in engineering?

To seek for the answers, join us for the WIE event! Our speakers are prominent women in electronics and electro-optics engineering who will share and discuss their career challenges and triumphs.

### *Your Career in Microwaves*

Executive workshops on how to start-up your career in the microwave industry held by leading career consultants and industry executives.



## SIGHTSEEING OPPORTUNITIES

In launching the 2021 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.

Depart from Tel Aviv to discover the whole of Israel... sea and coral reefs, desert and mountains, holy and historic sites of three religions, Israel offers you endless experiences in just a short drive away. Your unique experiences may include floating in the Dead Sea, sleeping under a Bedouin tent, visiting the Holy Sepulcher, walking in the ancient Western Wall tunnels – name your dream.





## 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,  $\mu$ Wave, 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 Therapeutic Modalities  
Biomedical Systems and Applications  
Effects of RF and MW on Biological Tissues

### RF/MW Devices and Circuits, RFICs

Solid-State Devices, RFICs  
 $\mu$ Wave, 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

## COMMITTEES

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To submit your paper and  
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**COMCAS.ORG**

Conference Secretariat



Ortra Ltd.

Tel: +972-3-6384444

Email: [comcas@ortra.com](mailto:comcas@ortra.com)

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