



2025 International Conference on Mobile and Miniaturized Terahertz Systems (ICM²TS) 23 - 26 February 2025, 5* Hotel, Dubai, UAE

Radio systems were invented ~130 years ago and first used for voice transmission (Radio broadcasting) at kHz frequencies with antennas as big as an apartment house, then ~50 years later for video transmission (TV broadcasting) at MHz frequencies with devices as big as a refrigerator, and another 50 years later for data transmission (Cellular radio, WLAN) at GHz frequencies with the first pocket-sized digital phones.

It is now time to harness THz frequencies for their unique ability to enable tiny antennas, and thus device sizes of less than a millimeter, for new research challenges.

Therefore, ICM²TS focuses on the numerous scientific challenges of various applications through successive miniaturization. Contributions from universities, research institutions, companies, visionaries and lateral thinkers are welcome to make the vision of smart dust through THz a reality.

Such tiny THz devices enable novel applications in areas such as imaging, counting, localizing cells in our vessels and organs by miniaturized THz receiver arrays, recording of body and indirectly even muscle movements or detecting of plant and insect interactions by miniaturized THz radars, detecting and localizing bacteria and viruses in our environment or the composition of gases in space by miniaturized THz spectroscopy, dynamically mapping or testing materials in our environment with mobile THz reflectometry, transmitting data at extremely high rates or connecting a multitude of IoT devices by mobile THz communication.

Confirmed Keynote Speakers

- Peter Siegel, "Working at the Speed of Light: Commercializing THz Imaging"
- Heinz-Wilhelm Hübers, "Miniaturized THz Receivers for Remote Sensing"
- Ullrich Pfeiffer, "Terahertz Light-Field Imaging"
- Luis Correia, "Body Area Networks: from Applications to Channel Models and Network Architectures in THz Band"
- Magda El-Shenawee, "Advances in THz Imaging of Cancer in Breast Tumor surgical Specimen"
- Daniel M. Mittleman, "Terahertz wireless communications in the near field"

Confirmed Special Sessions

- THz Electronics
- THz Photonics
- THz in vivo Communications
- THz Communications
- THz Body Monitoring
- THz MIMO Radar
- THz Identification
- THz Localization
- Insect and Plant Monitoring
- Reconfigurable Intelligent Surfaces Technologies and Applications: from GHz to THz
- Beamforming for THz Sensing and Communications
- Compact Optoelectronic THz Systems
- SAR Processing and its Applications at THz Frequencies

Join the Panel Session:
Is "Miniaturization" the Destiny of THz?

Important Dates

Proposals for Tutorials and
Special Sessions:
April 30, 2024

Submission Deadline for Extended
Abstracts and Full Papers:
July 15, 2024

Acceptance Notification:
September 30, 2024

Camera-ready Submission:
January 6, 2025

ICM²TS Organizing Committee

- General Chair **Thomas Kaiser**
- General Co-Chair **Andreas Czylik**
- TPC Chair **Andreas Stöhr**
- Tutorial Chair **Daniel Erni**
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Best Paper Awards
for Students and
Scientists



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