



IEEE DTTIS'2024 Call For Papers



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Aim of the Conference:

IEEE DTTIS conference (International Conference on Design, Test and Technology of Integrated Systems) is the result of merging two established IEEE conferences: DTIS (International Conference on Design and Technology of Integrated Systems in nanoscale era), and DTS (International Conference on Design and Test of Integrated Systems).

The aim of the conference is to cope with the rapidly progressing technology which, today, reaches the nanometer scale. The areas of interest include design, test and technology of integrated electronic products, ranging from devices, integrated circuit modules to full systems and microsystems, as well as the methodologies and tools used in the design, verification and validation of such products. DTTIS will show innovations in system and platform design, which extend beyond a single integrated circuit. These platforms may include 2.5D/3D chiplet based system-in-package, system-on-interposer, and multi-die integrations.

DTTIS is an opportunity for researchers to present and discuss their latest work. DTTIS is, by design, a forum where researchers, engineers, and graduate students converge to transcend the boundaries between design and technology of integrated circuits.

DTTIS is organized annually in a Mediterranean country. The forthcoming second edition is slated to take place in Aix-en-Provence, France, specifically at the Aquabella Hôtel, located in the heart of the city.

All accepted and presented papers will be published with IEEE and made available through IEEE Xplore. Additionally, they will be considered for publication in a journal special issue.

Papers are solicited in, but not limited to, the following topics:

Integrated Systems Design

- Analog, digital, mixed, and RF circuits design
- System-on-a-chip (SoC) & System of Chips (SoC), MPSoC, NoC, SIP, and NIP design
- Synthesis (physical, logic, etc.)
- Simulation, Validation & Verification
- Embedded / multiprocessor systems
- Hardware design for AI
- Neuromorphic architectures
- In-memory computing
- MEMS, NEMS and MOEMS systems design
- Electronics for energy harvesting
- Wireless communication systems design
- Sensory Systems Design
- Bio-engineering & Bio-chip design
- Chiplet and disaggregation

Integrated Systems Testing

- Defect and Fault Modeling
- Analog, digital circuit test
- Mixed, and RF circuit testing
- MEMS/NEMS/MOEMS Testing
- 3D/2.5D Test
- Memory test
- Repair and diagnosis
- DFT, BIST and BISR
- Radiation effects
- Hardware security
- Design for security
- Fault Simulation, ATPG
- Yield analysis and modeling
- Automotive reliability and test
- Reliability failures and modeling
- Electronic System Reliability
- On-line Testing

Integrated Systems Technology

- Process technology
- Device modeling
- Failure analysis
- Beyond CMOS technologies
- Resistive memory devices
- Device aging and lifetime reliability
- 2.5 & 3D integration
- Circuit integrity

Key Dates for Scientific Papers:

Paper pdf Submission Deadline: **May, 1st 2024**

Notification of acceptance: **June, 15th 2024**

Final version due date: **July, 1st 2024**

Online submission:

<https://www.dttis2024.org>

