

2022 4th International Conference on Design & Test of integrated micro & nano-Systems

June, 7-10, 2022 Cairo, Egypt

<http://www.dts-conf.org>



DTS'2022 CALL FOR PAPERS

Hybrid Interactive Event

Aim of the Conference: The fourth international conference on Design & Test of integrated micro & nano-Systems represents a scientific and technological event dedicated to integrated electronic systems which reach the nanoscale era. The interests of the conference cover all aspects of micro and nano systems from design to test. DTS is an important meeting where well known researchers from universities and companies will present the latest innovations in the field of micro and nano electronics. It will be also an opportunity for researchers to present and discuss their latest work.

All accepted and presented papers will be published on the DTS Conference Proceedings. The procedure to have the IEEE label is in progress

Papers Submission: Authors are invited to submit original and unpublished research work. Paper submissions should be complete manuscripts not exceeding six pages in a standard IEEE two-column format. The paper must clearly indicate the area, main results and contributions. The manuscript should follow the instructions included in the author's kit at the conference web site. Submitted articles should be in PDF format and uploaded to the on-line submission system. A submission will be considered as evidence that, upon acceptance, the author(s) will prepare the final camera-ready version of the paper in time for inclusion in the proceedings, and will present the paper at the conference.

Best Paper award: A best paper award will be given during the conference.

Journal Special Issue: A selection of the best papers presented in the Conference will be considered for publication in a Special Issue of well-known international journals.

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

Systems Design & Technology

- Analog, digital, mixed, and RF circuits design
- SoC, MPSoC, NoC, SIP, and NIP design
- Embedded electronics and System architecture
- MEMS, NEMS and MOEMS systems design
- Low-power electronics and systems design
- Sensory Systems Design
- Wireless communication systems design
- Opto-electronic System Design
- Biomedical Circuit & Systems
- Bio-engineering & Bio-chip design
- Linear & Non-Linear Circuits
- Power electronics and systems design
- Hardware co-design & FPGA design
- VLSI systems circuit and design
- DSPs and multiprocessor systems
- Embedded systems for Deep Learning
- Control Systems & Mechatronics
- Algorithms, methods and tools for modeling, simulation, synthesis and verification of ICs
- Algorithms, methods and tools for signal processing and image processing
- Algorithms, methods and tools for information security and cryptography
- Artificial Intelligence systems
- Electronic systems for energy harvesting applications
- GPS based engineering systems
- Process technologies, CMOS, BiCMOS, GaAs
- Microwave Systems & Integrated antenna
- 3D integration design and analysis
- ICs packaging

Systems Testing & Reliability

- Analog, digital, mixed, and RF circuits testing
- SoC, MPSoC, NoC, SIP, and NIP test
- On-line Testing and fault Tolerance
- Defect and Fault Modeling
- MEMS, NEMS and MOEMS Testing
- 3D testing
- Delay testing
- DFT, BIST and BISR
- Fault Simulation, ATPG
- Yield Optimization
- Memory & FPGA Test and Repair
- Automotive reliability and test
- Reliability failures and modeling
- Electronic System Reliability
- Test and Security Issues
- ATE issues
- Alternatives test strategies

Nanotechnology and applications

- Nanomaterials and applications: Nanostructured / nanoporous Materials and devices, Carbon Nanostructures and devices, Polymer Nanotechnology and devices...
- Nanoscale Materials/devices Characterization and modeling
- Nanoelectronics: Nano-circuits and Nano-architectures,
- Microfluidics and Nanofluidics Systems
- Nano-sensors for environmental monitoring
- Nanotechnology for health care and diagnosis: BioMEMS and BioNEMS, Lab On chips and Biosensors, Implantable micro/nano systems,...
- Nano/micro Technologies based Energy harvesting and storage devices and microsystems: Renewable and Novel Energy harvesting approaches (innovative solar cells, piezoelectric and thermoelectric microsources), Energy storage devices and applications (fuel cells, supercapacitors etc..)
- Nanorobotics and Nano-manipulation

VLSI IoT Devices

- Ultra-low power VLSI design for IoT
- System on Chip for IoTs
- IoT Application oriented Technologies
- IoT communication systems
- Real-time IoT systems
- RFID systems
- IoT Services and Applications
- IoT nodes architectures
- Sensors and Actuators for IoT
- Power and Energy systems design for IoT nodes
- Connectivity for IoT
- Computing Platforms for IoT
- Data Acquisition, Storage and Management for IoT
- Security and Privacy Enhancing Technologies for IoT devices
- IoT System Interfaces
- Reliability of IoT VLSI

Key Dates for Paper Submissions:

Paper Submission Deadline : **January, 17th, 2022**
 Notification of acceptance : **March, 23rd, 2022**
 Final version due date : **April 6th, 2022**

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