

4th IEEE International Conference on Design & Test of Integrated micro & nano-Systems

June, 7-10, 2022 Cairo, Egypt

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



IEEE DTS'2022 Call for Special Sessions



Hybrid Interactive Event

Aim of the Special Sessions:

Special sessions target, but are not limited to, hot and emerging topics. Proposers of special sessions are assumed to be able and willing to serve as organizers of the session, i.e. contact speakers, moderators, etc. Special session organizers can also be speakers or moderators in their own proposals.

Prospective organizers should submit a one or two page abstract outlining the session's scope and topic(s), the objectives and relevance of the proposed session to DTS, the format of the session, and a list of prospective participants. For more information, please contact the Special Session Chair

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

Deadline: Special Sessions proposals due: **April, 15th 2022**

Special Session Chair:

- **Prof. Hassen Mnif**, ENETCOM, Tunisia
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Each Special Session proposal should describe concisely the content, importance and timeliness of the special session. It should contain the following sections:

- Special Session's title.
- Summary describing the main focus and topics to be addressed and explained why the Special session is appropriate for DTS.
- The names and contact information of the organizers with a short biography

Conference Website: <http://www.DTS-conf.org>

