



# IEEE International Conference on Design & Test of integrated micro & nano-Systems

28 April - 01 May 2019 Gammarth, Tunis, Tunisia

## General Chairs

• **Pr. Mohamed Masmoudi**  
National Engineering School of Sfax, University of Sfax, Tunisia

• **Pr. Jaouhar Mouine**  
Prince Sattam bin Abdulaziz University, KSA

## Program Chairs

• **Pr. Chokri Abdelmoula**  
ENET'COM-University of Sfax, Tunisia

• **Dr. Abdullah Ilyasu**  
Prince Sattam bin Abdulaziz University, KSA

## Topic Chairs

• **Systems Design & Technology (SDT)**

Pr. Cherif Dridi, CRMN, Tunisia  
Pr. Brahim Mezghani, ENIS, Tunisia  
Pr. Fayu Wan, NUIST, China

• **Systems Testing & Reliability (STR)**

Pr. Hamdi Belgacem, ISSAT, Tunisia

• **Nano Electronic Systems (NES)**

Pr. Kamel Besbes, CRMN, Tunisia  
Pr. Daniel Prades, MIND, Spain

• **VLSI IoT Devices (IoT)**

Pr. Mohamed Ghorbel, ENETCOM, Tunisia  
Pr. Fares Tounsi, ISIMM, Tunisia

## Plenary Session Chairs

• **Pr. Mourad Loulou**, ENIS, Tunisia

• **Pr. Atul Takur**, Centre of Nanotechnology - Amity University Haryana, India

## Tutorial Session Chairs

• **Pr. Mourad Fakhfakh**, ENETCOM, Tunisia

• **Dr. Thamer S. Almonneef**, Prince Sattam bin Abdulaziz University, KSA

## Special Session Chairs

• **Pr. Mohamed Abid**, ENIS, Tunisia

• **Pr. Hassen Mnif**, ENETCOM, Tunisia

• **Dr. Saud M. Saeed**, Prince Sattam bin Abdulaziz University, KSA

## Panel Session Chairs

• **Pr. Ahmed Fakhfakh**, ENETCOM, Tunisia

• **Pr. Réjean Fontaine**, Université de Sherbrooke, Canada

## Workshops Chairs

• **Pr. Hatem Trabelsi**, ENIS, Tunisia

• **Dr. Farhan A. Alenizi**, Prince Sattam bin Abdulaziz University, KSA

## Industrial Liaison Chairs

• **Pr. Chiheb Rebai**, SUPCOM, Tunisia

• **Pr. Abdulfattah Mohammad Obeid**, King Abdulaziz City for Science and Technology, KSA

## Publication Chair

• **Dr. Imen Barraj**, ISIMG, Tunisia

## Local Arrangement Chair

• **Dr. Abbes Karim**, FSS, Tunisia

## Local Arrangement Members

• **Mohamed Bahloul**, ENIS, Tunisia

• **Dr. Imen Barraj**, ISIMG, Tunisia

• **Mariam Bouraoui**, ENIS, Tunisia

• **Dr. Ghazi Bouzid**, FSS, Tunisia

• **Dr. Emna Chabchoub**, CEA-LETI, France

• **Nabil Ellouze**, ENIS, Tunisia

• **Dr. Leila Khanfir**, ENIT, Tunisia

• **Dr. Amel Neifar**, CRMN, Tunisia



## Call For Papers

### Aim of the Conference:

The IEEE 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 the aspects from the design to the test of micro and nano systems. IEEE 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.

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

#### Systems Design & Technology (SDT)

- 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 (STR)

- 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

#### Nano Electronic Systems (NES)

- Nanostructured / nanoporous Materials and devices
- Nano-circuits and Nano-architectures
- Nano-sensors and Actuators
- Nanorobotics and Nano-manipulation
- Modeling and Simulation at the Nanoscale
- Carbon Nanostructures and devices
- Microfluidics and Nanofluidics Systems
- 3D printing systems
- Polymer Nanotechnology
- Nanoscale Materials Characterization
- Sensors based on emerging devices
- Renewable Energy Technologies
- Smart Grid
- Measurement of health risk
- Aerospace and Vehicle Manufacturers

#### VLSI IoT Devices (IoT)

- 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

**Best Papers award:** Best papers 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 journal.

### Key Dates for Scientific Papers:

Paper Submission Deadline	: 02 January 2019	<b>February 4, 2019</b>
Notification of acceptance	: 13 February 2019	<b>March 12, 2019</b>
Final version due date	: 12 March 2019	<b>April 2, 2019</b>

**Online submission:** <https://easychair.org/conferences/?conf=dts2019>

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

