



# 2<sup>nd</sup> IEEE International Conference on Design & Test of integrated micro & nano-Systems

June 7 - 10, 2020, Hammamet, Tunisia

## General Chair

- Pr. Mohamed Masmoudi  
ENIS, University of Sfax, Tunisia

## Program Chairs

- Pr. Chokri Abdelmoula  
ENET'COM-University of Sfax, Tunisia
- Pr. Smail Niar  
LAMIH-University of Hauts-de-France, France

## Topic Chairs

- **Systems Design & Technology (SDT)**  
Pr. Cherif Dridi, CRMN, Tunisia  
Pr. Brahim Mezghani, ENIS, Tunisia  
Pr. Ozcan Ozturk, Bilkent Univ., Turkey  
Pr. Hasan Yantir, KAUST, KSA
- **Systems Testing & Reliability (STR)**  
Dr. Salem Abdennadher, INTEL, USA  
Pr. Fakhreddine Ghaffari, ENSEA, France  
Dr. Arani Sinha, INTEL, USA
- **Nano Electronic Systems (NES)**  
Pr. Kamel Besbes, CRMN, Tunisia  
Pr. Federico Rosei, NanoFemtoLAB, Canada
- **VLSI IoT Devices (IoT)**  
Pr. Abderrazek Jemai, INSAT, Tunisia  
Pr. Baker Mohammad, Khalifa Univ., UAE  
Pr. Fares Tounsi, ISIM, Tunisia

## Plenary Session Chairs

- Pr. Mourad Loulou, ENIS, Tunisia
- Pr. Hassen Mnif, ENETCOM, Tunisia

## Tutorial Session Chairs

- Pr. Mourad Fakhfakh, ENETCOM, Tunisia
- Pr. Fakhreddine Ghaffari, ENSEA, France

## Special Session Chairs

- Pr. Mohamed Abid, ENIS, Tunisia
- Pr. Mohamed Khalgui, JINAN Univ., China

## Panel Session Chair

- Pr. Ahmed Fakhfakh, ENETCOM, Tunisia

## Workshops Chair

- Pr. Hatem Trabelsi, ENIS, Tunisia

## Industrial Liaison Chairs

- Pr. Reda Nouacer, CEA, France
- Pr. A. M. Obeid, King Abdulaziz City for Science and Technology, KSA
- Pr. Chiheb Rebai, SUPCOM, Tunisia

## Publication Chairs

- Dr. Imen Barraj, ISIMG, Tunisia
- Pr. Fayrouz Haddad, IM2NP, France
- Pr. Mouloud Koudil, ESI, Algeria

## Local Arrangement Chair

- Dr. Amel Neifar, CRMN, Tunisia

## Local Arrangement Members

- Dr. Karim Abbes, FSS, Tunisia
- Dr. Imen Barraj, ISIMG, Tunisia
- Dr. Ghazi Bouzid, FSS, Tunisia
- Mr. Nabil Ellouze, ENIS, Tunisia
- Dr. M. S. Masmoudi, ENET'COM, Tunisia
- Dr. Hassen Mestiri, FSM, Tunisia



## Call for Tutorials

### Aim of the Conference:

IEEE DTS 2020 Conference will feature a state-of-the-art set of Tutorial presentations. The Organizing Committee invites proposals and ideas for tutorials to be held as part of the Conference. Tutorials will provide a good opportunity for conference attendees to learn from leaders in the field, explore cutting-edge topics, and acquire new insights, knowledge and skills. The topic should be of sufficient relevance with respect to the general scope of the conference.

Potential organizers are invited to submit a brief (one-page) proposal and addressed to the Tutorial Chairs.

The topic should be of sufficient relevance with respect to the general scope of the conference:

#### 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

### Tutorial Chairs:

- Pr. Mourad Fakhfakh, ENETCOM, Tunisia
- Pr. Fakhreddine Ghaffari, ENSEA, France

Each Tutorial proposal should describe concisely the content, importance and timeliness of the tutorial. It should contain the following sections:

- Tutorial's title.
- Tutorial's type (introductory, intermediate, or advanced)
- Summary describing the main focus and topics to be addressed and explained why the tutorial is appropriate for DTS.
- A detailed outline of the presentation.
- A description of the proposer's lecturing expertise.

The proposed duration of the tutorial

**Deadline:** Tutorial proposals due: **January 20<sup>th</sup>, 2020**

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

