

IDT 2016 Conference Calendar

	17 th of December	18 th of December	19 th of December		20 th of December		
08h00-08h30		Registration		Registration		Registration	
08h30-09h00		ConferenceOpening		Plenary Talk II		Plenary Talk III	
09h00-09h30		Plenary Talk I		BLI Embedded systemsBLII(SS) Embedded Systems &IoT		CLI Analog and RF Design II	CLII(SS) Reconfigurable Logic Design And Verification
09h30-10h00		Coffee Break					
10h00-10h30		ALI FPGA Design	ALII Modeling, Simulation, Validation And Verification	Coffee Break/Poster Sessions BPI			
10h30-11h00				BLIII SoC DesignBLIV Analog, Mixed Signal Circuits Design			
11h00-11h30				Lunch		Coffee Break	
11h30-12h00						Panel	
12h00-12h30				ConferenceClosing			
12h30-13h00				Lunch			
13h00-13h30		Registration	Tutorial (T01)	ALIII Analog and RF Design I	Social Event (Foreign participant)		
13h30-14h00							
14h00-14h30	Coffee Break/ Poster SessionsAPI						
14h30-15h00	Tutorial (T02) Part 2		ALIV Digital Circuits				
15h00-15h30							
15h30-16h00							
16h00-16h30							
16h30-17h00							
17h00-17h30							
17h30-18h00							
18h00-18h30							
18:30-19:00							
19:00-20:00							
20:00-22:00			Conference Banquet				

17 th of December	
14:30-17:30	Registration
18 th of December	
08:00-08:30	Registration
08:30-09:00	Conference Opening
09:00-10:00	Plenary Talk I

Chair: Smail NIAR

- **Title:** Analysis of Design Parameters in Safety-Critical Systems
- **Keynote speaker:** Professor OzcanOzturk,
- **University:** Bilkent University Ankara Turkey
- **Keynote speaker:** Professor Yervant Zorian,
- **University:** University of Pennsylvania.

10:00-10:30	Coffee Break
10:30-12:30	ALI: FPGA Design

Chair: Abdelfateh Obeid / Mohamed Abid

- **Rebuilding Synthesized Design Hierarchy Based on Instances Path Names of Flattened Netlist**
Khouloud Bouaziz, Sonda Chtourou, Zied Marrakchi and Mohamed Abid
 - **A Comparison and Performance Evaluation of FPGA Soft-cores for Embedded Multi-core Systems**
Mariem Makni, Mouna Baklouti, Smail Niar, Mohamed Wassim Jmal and Mohamed Abid
 - **Sobel Edge Detection System Design and Integration on an FPGA Based HD Video Streaming Architecture**
Abdelkader Ben Amara, EdwigePissaloux and Mohamed Atri
 - **Non-Volatile Look-Up Table Based FPGA Implementations**
Lei Xie, Hoang Anh Du Nguyen, MottaqiallahTaouil, Said Hamdioui and Koen Bertels
 - **Multiple FPGAs based prototyping and debugging with complete design flow**
Moazam Azeem, Habib Mehrez and RoselyneChotin-Avot
-

-
- **Design of DRFM System Based on FPGA with High Resources**

Mohammed Aseeri, Abdulaziz A Alasows and Muhammad R. Ahmad

10:30-12:30	ALII: Modeling, Simulation, Validation And Verification
--------------------	--

Chair: Yacine Hileli / Mohamed Ghazel

- **UML-Based Reconfigurable Middleware for Design-Level Timing Verification in Model-Based Approach**

Rania Mzid and Mohamed Abid

- **Timed-SDF Patterns for Applications Throughput Analysis**

ImedBennour and AbderrazekJemai

- **Petri Net-Based Models of SystemC/TLM Modules**

Imed Bennour

- **Stepwise SystemC/TLM-2 Models Structuring and Optimizations**

Salaheddine Hamza Sfar, Imed Bennour and RachedTourki

- **Regression Modeling for Subset Selection in Rare-Event Statistical Circuit Simualtion**

Reem Eladawi Elmitwally and Mohamed Dessouky

- **Industrial Approaches for Performance Evaluation Using On-Chip Monitors**

Mahroo Zandrahimi, Philippe Debaud, Armand Castillejo and Zaid Al-Ars

12:30-14:00	Lunch
--------------------	--------------

14:00-15:00	Tutorial (T01)
--------------------	-----------------------

- **Title:** New approaches towards early dependability evaluation of digital integrated systems
- **Speaker:** Régis LEVEUGLE
- **University:** University of Grenoble

15:00-16:00	Tutorial (T02) part1
--------------------	-----------------------------

- **Title:** Challenges of FPGA-Based Prototyping & Debugging
- **Speaker:** Eman El Mandouh
- **Mentor Graphics.**

14:00-16:00	ALIII:Analog and RF Design I
--------------------	-------------------------------------

Chair: Hassene Mnif / Mohamed Dessouky

- **Design of Discret Time Feed-forward Cascaded $\Delta\Sigma$ Modulator for Wireless Communication Systems**
HoudaDaoud
- **Low-Voltage Low-Power OTA Using Source-Degeneration Technique and Its Application in Gm-C Filter**
Karima Garradhi, Néjib Hassen and Kamel Besbes
- **Design of A Low Power Variable Gain Amplifier For WLAN Standard**
Sawssen Lahiani, Houda Daoud and Samir Ben Selem
- **Stress-Aware Analog Layout Devices Pattern Generation**
Khaled Elkenawy and Mohamed Dessouky
- **Design of High-Performance CMOS Tunable Active Inductor**
Sehmi Saad, Mongia Mhiri, Aymen Ben Hammadi and Kamel Besbes
- **ResistiveTerminationLow Noise Amplifier for Bio-sensor Applications**
Maissa Daoud, Hassene Mnif and Mohamed Ghorbel

16:00-16:30	Coffee Break/ Poster Sessions API
	<p style="text-align: center;">Chair: Kais Loukil/Mouna Baklouti</p> <ul style="list-style-type: none"> ▪ Real-Time Hardware/Software Co-Design of a Traffic Sign Recognition System Using Zynq FPGA Wajdi Farhat, Hassene Faiedh, Chokri Souani and Kamel Besbes ▪ Fast Oriented Anisotropic Diffusion filter Amira HadjFredj, Jihene Malek and El Bey Bourennane ▪ Embedded FPGA accelerator for Wireless Sensor Network nodes Hajer Saidi, MariemTurki, Zied Marrakchi and Mohamed Abid
16:30-18:30	Tutorial (T02) part2
<ul style="list-style-type: none"> • <u>Title:</u> Challenges of FPGA-Based Prototyping & Debugging • <u>Speaker:</u> ZiedMarrakchi • <u>Mentor Graphics</u> 	
16h30-18h30	ALIV:Digital Circuits

Chair: Imed Bennour/Julius Georgiou

- **High Performance Interpolation Filter Using Direct Computation**

Magdy El-Moursy

- **Taking into Account Indirect Jumps or Calls in Continuous Control-Flow Checking**

Lydie Terras, Yannick Teglia, Michel Agoyan and Régis Leveugle

- **A Flexible RNS-based Large Polynomial Multiplier for Fully Homomorphic Encryption**

Asma Mkhini, Paolo Maistri, Régis Leveugle, Rached Tourki and Mohsen Machhout

- **Leakage Power Evaluation of FinFET-Based FPGA Cluster Under Threshold Voltage Variation**

Mohamed Mohie El-Din, Hassan Mostafa, Hossam Fahmy and Yehea Ismail

- **Area Efficient Implementation of Ripple Carry Adder using Memristor Crossbar Arrays**

Phrangboklang Lynton Thangkhiew, Rahul Gharpinde, Varun C Paturi, [Kamalika Datta](#) and [Indranil Sengupta](#)

19th of December

08:00-08:30	Registration
08:30-09:30	Plenary Talk II

Chair: Mourad LOULOU

- **Title:** Microelectronic Systems for Improved Quality of Life
- **Keynote speaker:** Prof Julius Georgiou
- **University:** University of Cyprus

09:30-11:00	BLI:Embedded Systems
-------------	----------------------

Chair; Régis Leveugle / Yecine HILELI

- **Embedded Adaptation for 3D Face Analysis using Elastic Riemannian Algorithm**

Imed Yahyaoui, Tarek Frikha, Abid Mohamd and Hassen Drira

- **Multiprocessor Architecture for an optimized parallel model of covariance based person detection**

Nesrine Abid, Tarek Ouni, Kais Loukil, Ahmed Chiheb Ammari and Mohamed Abid

- **A Co-design Space Exploration Tool for Avionic High Performance Heterogeneous Embedded Architectures**

Geoffroy Pertuisot, Nicolas Belanger, Yassin El-Hillali, Smail Niar and Atika Rivenq-Menhaj

- **Human action recognition using RGB data**

Amel Ben Mahjoub and Mohamed Atri

- **A novel bio-inspired Coding scheme for wireless sensor networks**

Hajer Yaich and Mohamed Masmoudi

09:30-11:00	BLII:Embedded Systems &IoT(Special Session)
-------------	---

Chairs ;Abderrazak Jemai and Mohamed Ghazel

- **To A Technical Fault Tolerance in Embedded Systems Multiprocessor (MPSoC)**

Kamel Smiri and Safa Bekri

- **Pipelining the HEVC Decoder on ZedBoardPlatform**

Habib Smei, Abderrazak Jemai and Kamel Smiri

- **Petri Net Diagnosability Analyzer**

Baisi Liu and Mohamed Ghazel

- **Using IoT in breakdown tolerance: PSO solving FJSP**

Maroua Nouiri, Abdelghani Bekrar, Abderrazak Jemai, Damien Trentesaux, Ahmed Ammari and SmailNiar

- **A survey on security of IoT in the context of eHealth and clouds**

Imen Benida, Abderrazak Jemai and Adlen Loukil

11:00-11:30	Coffee Break/Poster Sessions BPI
	<p>Chair: Kais Loukil/Mouna Baklouti</p> <ul style="list-style-type: none">▪ An Efficient Hardware Architecture of Intra Prediction in HEVC Standard Abdessamad El Ansari, Ali Ahaitouf and AnassMonsouri▪ ARM-based SoC for Routing in Wireless Sensors Networks ManelElleuchi▪ A Lighting Independent Vision Based System for Driver Assistance SabrineHamdi, Hassene El Faiedh, ChokriSouani and KamelBesbes
11:30-13:00	BLIII:SoC Design

Cahir; Ozcan Ozturk/ Yervant Zorian

- **Challenges in Serial Protocols Verification on an EmualtionEnvironemt (SATA as an Example)**

HaythamAshour

- **A Narrative of UVM Testbench Environment for Interconnection Routers: A Practical Approach**

Ahmed Shalaby, Sameh El-Ashry, Mostafa Khamis, Ahmed Elnaggar, Ahmed Medhat, Bassma Al-Abassy, EssraaMassoud and Hala Mohammed

- **A Blocking Probability Study for the Aethereal Network-on-Chip**

Sarosh Tahir, Guido Marchetto and Michelangelo Grosso

- **SoC Connectivity Specification Extraction Using Incomplete RTL Design: An Approach For Formal**
-

Connectivity Verification

HaythamSaafan, M. Watheq El-Kharashi and Ashraf Salem

- **Implementation of a fall detection decision core on a ZynqHeterogenous Computing Platform**
Sahar Abdelhedi, MounaBaklouti, RiadBourguiba and JaouharMouine

11:30-13:00	BLVI:Analog, Mixed Signal Circuits Design
-------------	---

Chair: Julius Georgiou / Mourad Loulou

- **Characteristic Impedance and Propagation Constant Assessment of Substrate Integrated Waveguide Transmission Line**

Karima Rabaani and NouredineBoulejfen

- **Accelerating the Debugging of FV Traces Using K-Means Clustering Techniques**

Eman El Mandouh and Amr G. Wassal

- **Study of the bends effects on a meandered dipole tag antenna**

Ines Frigui, Mohamed Salah Karoui and HamadiGhariani

- **Macro Model Analysis of a Single Mass 6-DOF Inertial Measurement Unit System**

Hela Almabrouk, MahaKharroubi, Fares Tounsi, BrahimMezghani and Yves Bernard

- **A Low Power Low Noise Amplifier for 2.45GHz ISM Receiver for Body Area Network**

Maissa Daoud, HasseneMnif and Mohamed Ghorbel

13:00-14:30	Lunch
14:30-19:00	Social Event (Foreign participant)
19:00-22:00	Conference Banquet

20th of December

08:00-08:30	Registration
08:30-09:30	Plenary Talk III

Chair: Smaïl NIAR

- **Title:**Critical Systems
-

-
- **Keynote speakers:** Dr. Paolo Burgio
 - **University:** Università degli Studi di Modena e Reggio Emilia, Italy
 - **Title:** Virtual platforms: from consumer electronics to critical embedded systems.
 - **Keynote speakers:** Reda NOUACER,
 - **Research engineer** at French Alternative Energies and Atomic Energy Commission (CEA-LIST) Software Reliability and Security Laboratory.

09:30-11:30	CLI:Analog and RF Design II
-------------	-----------------------------

Chair: Mohamed Dessouky/ Mourad Loulou

- **Band-Limited 2D Cartesian Behavioral Modeling of Concurrent Dual-Band RF Transmitters**
Souhir Lajnef, Noureddine Boulejfef and Fadhel M. Ghannouchi
- **A 1.82-4.44 GHz Reconfigurable Bandpass Filter Based on Tunable Active Inductor**
Aymen Ben Hammadi, Mongia Mhiri, Fayrouz Haddad, Sehmi Saad and Kame lBesbes
- **An L, S and S2 bands, compliant LC-based DCO for Amateur Nano-Satellite Applications**
Sehmi Saad, MongiaMhiri, Aymen Ben Hammadi and Kamel Besbes
- **Performances Analysis of a Coupled Differential Oscillators Network Using the Contour Graph Approach**
Kaouthar Djemel, Dorra Mellouli and RahmaAloulou
- **Enhanced Performances of Paper-based Substrate Integrated Waveguide (SIW) Antenna for Wireless Sensor Network applications**
Hiba Abdelali, Bedira Rachida, HichemTrabelsi and Ali Gharsallah

09:30-11:30	CLII:Reconfigurable Logic Design And Verification (Special Session)
-------------	---

Chair: Ashraf Salem

- **Design of Advanced 2D and 3D FPGAs: Architecture-Level Exploration and Algorithm-Level Optimization”**
Sonda Chtourou, Zied Marrakchi, Emna Amouri, Mohamed Abid, Habib Mehrez,
 - **Design Guidelines for Soft Implementations to EmbedNoCs of FPGAs**
Noha Gamal, Hassan Mostafa, HossamFahmy and Yehea Ismail
 - **Multiband GNSS receiver design, simulation and experimental characterization**
Hanan Mehrez, Ali Othman, Rim Barrak, Adel Ghazel, Muriel Muller and Ghalid Abib
 - **NVMe Solid State Drive Verification Solution Using HW Emulation and Virtual Device Technologies**
Mohamed Abdelsalam
-

-
- **A proposed methodology for designing reconfigurable solutions**

Abdulfattah Obeid, Ahmed Shalash, Mohammed BenSaleh,

- **Hardware security and split fabrication**

Yousra Alkabani,

11:30-12:00	Coffee Break
12:00-13:00	Panel
13:00-13:30	Conference Closing
13:30-15:00	Lunch