

# ART 2019 – Final Program

## Thursday 14, November

PM

- 04:00 **Opening** Yervant Zorian (Synopsis)  
Paolo Bernardi (Politecnico di Torino)
- 04:20 **keynote** Davide Appello (STMicroelectronics)  
**Automotive, the Roadmap of Technologies and their Influences on Testing**
- 05:00 **Break**
- 05:30 **panel** **Security and Safety Challenges in Automotive**  
*organizer:* Giorgio Di Natale (TIMA)  
*moderator:* Rob Aitken (ARM)  
*panelists:* Nir Maor (Qualcomm)  
Sandip Ray (University of Florida)  
Francesco Regazzoni (AlaRI)  
Shreyas Sen (Purdue University)  
Daniel Tille (Infineon Technologies)
- 07:00 **Welcome Reception**

## POSTERS with brief oral presentation on Friday 15, November

- Progressive ECC Techniques for Reliability Enhancement of Flash Memory  
*Shyue-Kung Lu (National Taiwan University of Science and Technology)*
- In Situ DC Loop Gain and Stability Measurement of LDOs using a Nulling Op-Amp Servo Loop  
*Anurag Tulsiram and William Eisenstadt (University of Florida)*
- Universal automotive motor test bench controller  
*George Flutur, Ovidiu Stan and Liviu Miclea (Cluj-Napoca University)*
- Bridging Gaps in Automotive Digital Twin  
*Mohamed Abdelsalam, John Stickley and Ashraf Salem (Mentor Graphics)*
- Embedding Effective Reliability Fault Detection  
*Nigel G Kissaun (ELES)*

All posters competes for the Best ART Poster Award 2019 and are introduced during session 1.

# Friday 15, November

AM

08:30

**Session 1 TEST DURING FUNCTIONAL OPERATION**  
Moderator: Daniel Tille (Infineon Technologies)

- DFT Signals and Safety during Functional Operation  
*Teresa McLaurin (ARM)*
- A Possible Strategy for the Development of Software Test Libraries for different Processors of the same Family  
*Davide Piumatti, Ernesto Sanchez, Rosario Martorana and Mose Alessandro Pernice (Politecnico di Torino, STMicroelectronics)*
- Brief posters introduction – 1 min per each poster

10:00 **Poster session**

10:30 **Embedded tutorial**

Moderator: Paolo Bernardi (Politecnico di Torino)  
• Using Applicative Test to Increase Confidence on Screening Quality  
*Davide Appello (STMicroelectronics)*

11:10 **Special session: Hot topics from the industry experts**

Moderator: Wim Dobbeleare (ON Semiconductors)  
*Ralf Arnold (Infineon Technologies)*  
*Adam Cron (Synopsys)*  
*Nilanjan Mukherjee (Mentor)*  
*Alan Hales (Texas Instruments)*

12:00 **Lunch**

PM

01:00

**Session 2 MACHINE LEARNING ISSUES AND SOLUTIONS**  
Moderator: Ernesto Sanchez (Politecnico di Torino)

- Analysis of SEU susceptibility of Quantized Neural Network Hardware Accelerators via Error Injection  
*Giulio Gambardella, Johannes Kappauf, Michaela Blott, Christoph Doehring, Martin Kumm, Peter Zipf and Kees Vissers (XILINX)*
- Increasing the Robustness of Camera-based Depth Perception Methods for Objects at Large Distances  
*Vlad Miclea, Liviu Miclea and Sergiu Nedevschi (Cluj-Napoca University)*
- Cell-Aware Diagnosis of Automotive Customer Returns Based on Supervised Learning  
*Safa Mhamdi, Patrick Girard, Arnaud Virazel, Alberto Bosio and Aymen Ladhar (LIRMM, STMicroelectronics)*

02:30 **Poster session**

03:00

**Session 3 IN-FIELD TESTING**

Moderator: Gurgen Harutyunyan (Synopsys)

- In-field Functional Test of CAN Bus Controllers

*Riccardo Cantoro, Sandro Sartoni and Matteo Sonza Reorda (Politecnico di Torino)*

- Anatomy of an in-die tester for infield testing

*Sreejit Chakravarty, Edward Brazil, Rakesh Kandula, Neel Shah, Sarath Varma, A Karthika and Veerasha Bevinamatti (Intel)*

- Increasing the Robustness of Software Test Libraries in Multi-core System-on-Chips

*Andrea Florida, Davide Piumatti, Annachiara Ruospo, Ernesto Sanchez (Politecnico di Torino), Rosario Martorana and Mose Alessandro Pernice (STMicroelectronics)*

04:00 **Best Poster Award announcement and Closing**

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