

GREECE 2-5 | ULY VOLOS

CALL FOR PAPERS

The 2024 edition of the International Conference on Synthesis, Modeling, Analysis and Simulation Methods, and Applications to Circuit Design (SMACD) will be held from 2 to 5 July in Volos, Greece. SMACD is a forum devoted to modeling, simulation, and synthesis for Analog, Mixed-signal, RF (AMS/RF), and multi-domain (nanoelectronics, biological, MEMS, optoelectronics, etc.) integrated circuits and systems, as well as, emerging technologies and applications. Open-source tools and methods for IC design and experiences with modeling, simulation, and synthesis techniques in diverse application areas are also welcomed. Objective technologies include CMOS, beyond CMOS, and More-than-Moore such as MEMs, power devices, sensors, passives, etc. Accepted papers will be submitted for inclusion into IEEE Xplore (subject to meeting IEEE Xplore's scope and quality requirements).

CAD AND EDA METHODOLOGIES AND TOOLS FOR AMS SYSTEMS (CAD/EDA)

Synthesis, Sizing & Optimization

- Multi-level Synthesis Methods
- Physical Synthesis Methods
- High-frequency Circuits & Systems
- Low-Power & Energy-Aware Design
- Parasitic-Aware Design
- Variability-aware & Reliability-Aware
- Sizing & Optimization Methods
- Procedural Design Methods

Modeling

- Performance/Behavioral
- Power and Electro-thermal Numerical & Symbolic
- Reliability and Variability
- RF/microwave/mm-wave
- Signal/Power Integrity
- Electromagnetic Theory
- Transmission Line Theory
- o Automated Model Gen.

Simulation, Verification & Test

- Behavioral Simulation
- RF Circuit Simulation
- Electromagnetic Simulation
- Multilevel Simulation
- Analysis of Variability Effects
- Formal/Functional Verification
- Test & Design-for-Test

EMERGING TECHNOLOGIES AND APPLICATIONS (ETA

CAD for/using Emerging Technologies

- o CAD for Bio-Electronic Devices, Bio-Sensors
- CAD for Multi-Domain Devices and Circuits
- CAD for Nanophotonics and Optical Devices/Interc.
- CAD using AI and ML Algorithms
- CAD using Cloud Computing
- AMS CAS Soft and Hard IP Blocks Generating Meth.

Hardware Security

- Hardware Security primitives (PUFs, etc.)
- Attacks and Countermeasures
- Anticounterfeiting
- Methods. Architectures and Tools for Secure Design

Emerging Devices and Paradigms

- Emerging Device Modeling (Steep-Slope, TFET, NCFET, PTM, Memristor, etc.)
- Design Strategies using Emerging Devices
- Emerging Devices in Security
- o Devices, Hardware and Methods for Bio-Inspired and Neuromorphic Computing

AMS ICS AND MULTI-DOMAIN DESIGN APPLICATIONS (DES

Design Applications

- Internet of Everything
- Automotive Systems
- Biomedical and Bio-inspired CAS Security Systems
- Low-Power Low Voltage CAS
- Aerospace Systems
- Sensors and Sensing Systems Renewable Energy Systems

MPORTANT DATES

Paper Submission Deadline	March 10 th , 2024
Author Notification	March 26 th , 2024
Camera Ready Paper Submission	April 8 th , 2024
Farly Registration Deadline	April 8 th 2024

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Department of Electrical & Computer Engineering University of Thessaly

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