SystemC AMS & COSEDA User Group Meeting Program 2024

Date: Wednesday, December 4th and Thursday, December 5th 2024

Location: This year's meeting will take place as an online event. The meeting will be scheduled in Central European Time (CET).

First Day: Wednesday, December 4th 2024

Session 1

13:00 – 13:20 **Welcome Speech & COSEDA Technologies Update**
Thomas Hartung, COSEDA Technologies GmbH

13:20 – 13:45 **What`s new in COSIDE® 3.3 & Forecast for 2025**
Karsten Einwich, COSEDA Technologies GmbH

13:45 – 14:10 **Learning IC Design and the Role of COSIDE® Enabling the use of SystemC (AMS) in Education**
Wolfgang Scherr, Carinthia University of Applied Science

14:10 – 14:35 **A Scalable SystemC Stimuli Parser for Digital and AMS Simulations in COSIDE®**
Alessandro Putortì, Infineon Technologies

Session 2

15:00 – 15:20 **New Python Scripting in COSIDE®**
Dominic Scharfe, COSEDA Technologies GmbH

15:20 – 15:40 **COSIDE® Design Automation using Scripting**
Thomas Arndt, COSEDA Technologies GmbH

15:40 – 16:00 **Interacting with SystemC/SystemC AMS from Scripts**
Karsten Einwich, COSEDA Technologies GmbH

16:00 – 16:20 **Waveviewer Scripting and Post-Processing with COSIDE®**
Paul Ehrlich, COSEDA Technologies GmbH

16:20 – 16:45 **SystemC Code Generation using COSIDE® Python API**
Ronny Zavrtak, NXP Semiconductors Germany GmbH

Session 3

17:00 – 17:25 **Fault Injection for Multi-Chip Simulation of Battery Management System**
Frank Poppen, NXP Semiconductors Germany GmbH

17:25 – 17:50 **Reusing Generic C Peripheral Models in an L4 SystemC Simulation**
Chethan Muralidhara & Sacha Loitz, Continental Autonomous Mobility Germany GmbH

17:50 – 18:15 **Modeling Cyber-Physical Power Systems using SystemC AMS**
Rahul Bhadani, University of Alabama Huntsville

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Second Day: Thursday, December 5th 2024

Session 4

09:00 – 09:25 **Half Year Experience with VirtualGTM in COSIDE® 3.2**
Juergen Hanisch, Robert Bosch GmbH

09:25 – 09:50 **Debugging GTM Code on Virtual Prototypes and Real Microcontrollers**
Matthias Noack, PLS Programmierbare Logik & Systeme GmbH

09:50 – 10:15 **COSIDE® Multi Core Debug (MCD) Interface for BOSCH GTM**
Karsten Einwich, COSEDA Technologies GmbH

10:15 – 10:40 **Building a Virtual Platform: Integrating a SystemC PCIe Model into a Gem5 ARM Platform with COSIDE®**
Thilo Voertler, COSEDA Technologies GmbH

Session 5

11:00 – 11:25 **Paradigm Shift in Mixed Signal ASIC Design, Adopting SystemC and High-Level-Synthesis vs. Traditional RTL Design Flow**
Fabian Kluge, Inova Semiconductors GmbH

11:25 – 11:50 **SystemC AMS Matrix Operation Library**
Jannik Arp, COSEDA Technologies GmbH

11:50 – 12:15 **Providing User-Friendly Interfaces to SystemC/SystemC AMS Models through Simulink, Python, and Browser for Enhanced Customer Experience**
Peter Friessnegger, Infineon Technologies AG

12:15 – 12:40 **SystemC AMS Virtual Prototyping of RISC-V-Based Systems with Extra-Functional Awareness**
Sara Vinco, Politecnico di Torino

12:40 – 13:00 Wrap-up & Farewell