



EVOLUTION DAY

OCT 18, 2017 | MUNICH | GERMANY

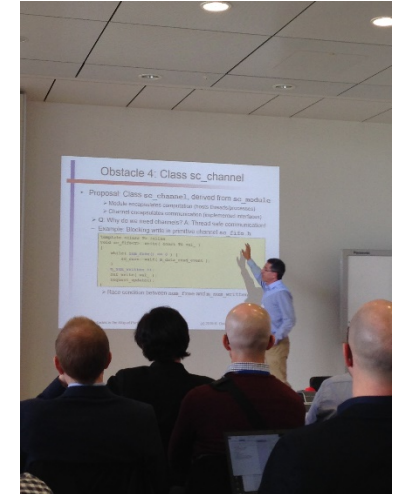


© Accellera Systems Initiative



WARM WELCOME to 2nd SystemC Evolution Day!

- **Review: SystemC Evolution Day 2016**
 - Successful event last year
 - SystemC 2.3.2 contains C++11 results, parallelization extensions
- **Today**
 - Second edition, kindly hosted by TU Munich
 - 60+ registrations
 - 23 companies, 4 universities
 - Let's have good discussions and insights for further evolving SystemC!



Welcome @ TU Munich

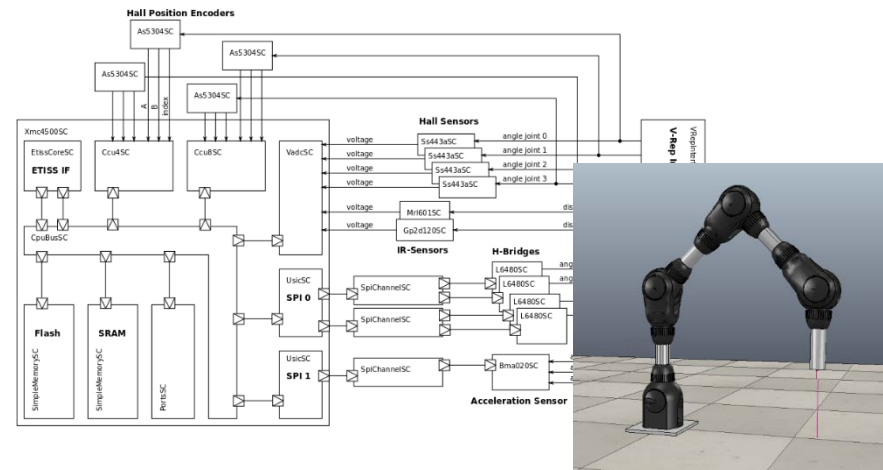
Chair of Electronic Design Automation

Prof. Dr.-Ing. Ulf Schlichtmann

- **Main Topics:**

- Software tools for design of integrated circuits (ICs) and embedded systems
- Mathematical algorithms for analysis, modeling, synthesis and optimization
- From transistor to electronic system level
 - IC reliability + timing
 - Emerging technologies (silicon photonics, biochips)
 - Fast processor models and timed host-compiled SW simulation for SystemC VPs
 - Safety evaluation by fault injection in SystemC VPs

Contact: Mail: eda@ei.tum.de Web: www.eda.ei.tum.de



SystemC/TLM VREP Co-simulation of robotic arm

Event Sponsor



SYSTEMS INITIATIVE™

Accellera Global Sponsors

cādence®

Mentor®
A Siemens Business

SYNOPSYS®

Special Thanks*

- **Organization Team**

- Matthias Bauer, Thomas Kruse, Infineon
- Oliver Bell, Philipp Hartmann, Intel
- Martin Barnasconi, NXP

- **Logistics and Organization**

- Lynn Bannister-Garibaldi, Accellera
- Daniel Müller-Gritschneider, Ulf Schlichtmann, TU Munich

- **Moderators**

- Jakob Engblom, Hakan Zeffer, Intel
- Mark Burton, GreenSocs
- Jerome Cornet, ST Microelectronics
- Frederic Doucet, Qualcomm
- Andres Takach, Mentor

* In order of appearance

Morning program

| | |
|---------------|---|
| 08:30 – 09:00 | Welcome coffee – sponsored by Accellera |
| 09:00 – 09:15 | Introduction |
| 09:15 – 10:15 | #1: Checkpointing and SystemC – How can we make them meet? <i>Jakob Engblom, Hakan Zeffer (Intel Corp.)</i> |
| 10:15 – 10:45 | Coffee break – sponsored by Accellera |
| 10:45 – 12:45 | #2: Standardization around Registers – What's needed? <i>Mark Burton (GreenSocs), Jerome Cornet (ST Microelectronics)</i> |
| 12:45 – 13:45 | Lunch break – sponsored by Accellera |

Afternoon program

| | |
|---------------|---|
| 12:15 – 13:30 | Lunch break – sponsored by Accellera |
| 13:30 – 14:30 | #3: SystemC Datatypes – A Community Discussion <i>Frederic Doucet (Qualcomm)</i> |
| 14:30 – 15:30 | #4: Throughput accurate modeling and synthesis of abstract interfaces <i>Andres Takach (Mentor)</i> |
| 15:30 – 16:00 | Coffee break – sponsored by Accellera |
| 16:00 – 17:00 | Wrap-up & Open discussion on SystemC standards |
| 17:00 – 17:15 | Closing |

Results collection

- In the **Technical Sessions**, please
 - nominate a **secretary to take minutes**
 - prepare **summary** for follow-up discussions
 - Main consensual/controversial points
 - Next steps in Accellera (including owners and destination WGs)
- Detailed results will be forwarded to Accellera WGs
 - Including presented material
 - **Join Accellera WGs** to continue your participation!

SYSTEMC WG UPDATES

Accellera SystemC Working Groups

- **Language Working Group (LWG)**
 - Chairs: Philipp A. Hartmann (Intel), Andy Goodrich (Cadence)
- **Transaction-Level Modeling Working Group (TLMWG)**
 - Chair: Bart Vanthournout (Synopsys)
- **Analog/Mixed-Signal Working Group (AMSWG)**
 - Chairs: Martin Barnasconi (NXP), Christoph Grimm (TU Kaiserslautern)
- **Configuration, Control & Inspection Working Group (CCIWG)**
 - Chairs: Trevor Wieman (Intel), Bart Vanthournout (Synopsys)
- **Synthesis Working Group (SWG)**
 - Chairs: Andres Takach (Mentor), Mike Meredith (Cadence)
- **Datatypes Working Group (SDTWG)**
 - Chairs: Frederic Doucet (Qualcomm), Mark Johnstone (NXP)
- **Verification Working Group (VWG)**
 - Chairs: Stephan Schulz (Fraunhofer), Bas Arts (NXP)

SystemC evolution – 2017 highlights

- **SystemC 2.3.2** released @ DVCon Europe 2017
 - C++1x support, modern platforms, tons of fixes
 - some new features, see documentation
- **CCI configuration** ready for public review
 - LRM, proof-of-concept, examples
- **UVM SystemC** update coming soon
 - SystemC 2.3.2 support, register (backdoor) API, UVM 1.2 reporting
- **SystemC datatypes** WG started

For more information contact ipr-chair@lists.accelera.org

ACCELLERA SYSTEMS INITIATIVE IP RIGHTS POLICY SLIDES

Accellera IP Rights Fundamentals

- All participants in an Accellera WG meeting must abide by the Accellera IP Rights Policy which can be found at www.accelera.org/about/policies/
- The Accellera Board and its committees operate in an open manner. To that end, no material submitted to the Accellera Board or its committees will be accepted or considered if it contains any statement that places any burden on the recipient(s) with respect to confidentiality or copyright. Any communication or other collateral material, including electronic mail, containing language with such restrictive wording will not be accepted or considered.
- Slide presentations at any Accellera meeting containing a copyright notice(s) from the presenter's employer or a company that the presenter represents will be accepted only if a duly filled-in copyright permission template slide is the first slide (after the title slide) in the presentation.

Participants, Patents, and Duty to Inform

All participants in this meeting have certain obligations under Accellera's IP Rights Policy

Participants:

- Shall inform Accellera (or cause Accellera to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
 - “Personal awareness” means that the participant is personally aware that the holder may have a potential Essential Patent Claim, even if the participant is not personally aware of the specific patents or patent claims
- Should inform Accellera (or cause Accellera to be informed) of the identity of any other holders of such potential Essential Patent Claims (that is, third parties that are not affiliated with the participant, with the participant's employer, or with anyone else that the participant is from or otherwise represents)
- The above does not apply if the patent claim is already the subject of an Accepted Letter of Assurance that applies to the proposed standard(s) under consideration by this group
- Early identification of holders of potential Essential Patent Claims is strongly encouraged
- No duty to perform a patent search

IPR and Patent-Related Documents

- All participants should be familiar with their obligations under the Accellera IP Rights Policy, including the antitrust and competition law guidelines. The IP Rights Policy and related documents are available at:

<http://www.accellera.org/about/policies/>

If you have questions, contact the Accellera Systems Initiative IP Rights Committee Administrator at ipr-chair@lists.accellera.org or visit www.accellera.org

This slide set is available at:

http://www.accellera.org/about/policies/accellera_systems_initiative_IPR_slides.pdf

Morning program

| | |
|---------------|---|
| 08:30 – 09:00 | Welcome coffee – sponsored by Accellera |
| 09:00 – 09:15 | Introduction |
| 09:15 – 10:15 | #1: Checkpointing and SystemC – How can we make them meet? <i>Jakob Engblom, Hakan Zeffer (Intel Corp.)</i> |
| 10:15 – 10:45 | Coffee break – sponsored by Accellera |
| 10:45 – 12:45 | #2: Standardization around Registers – What's needed? <i>Mark Burton (GreenSocs), Jerome Cornet (ST Microelectronics)</i> |
| 12:45 – 13:45 | Lunch break – sponsored by Accellera |