



International Conference on Hardware/Software Codesign and System Synthesis

The premier conference for system level design

7 - 12 October 2012, Tampere, Finland

Call for Papers

The International Conference on Hardware/Software Codesign and System Synthesis (CODES+ISSS) is the premier event in design, modeling, analysis, and implementation of modern embedded systems, from system-level analysis and optimization to hardware/software implementation. The conference is a forum for active discussion of topics of current and future importance to designers and researchers. The program will bring together the latest in academic and industrial research and development. High-quality original papers will be accepted for oral presentation followed by interactive poster sessions. CODES+ISSS 2012 is part of the Embedded Systems Week 2012.

Program chairs:

- Prof. Naehyuck Chang, Seoul National University (naehyuck@elpl.snu.ac.kr)
- Prof. Franco Fummi, University of Verona (franco.fummi@univr.it)

Areas of Interest

The CODES+ISSS invites papers on the specification, modeling, design, analysis, and implementation designs from embedded systems to systems of systems. The conference covers range of design problems and applications relevant to important embedded system quality metrics including **performance, cost, power consumption, reliability, security, usability, and compactness**. Each paper is supposed to tackle new challenges based on new novel and innovative idea and/or emerging technologies. The following area of topics are welcomed but not limited to:

- **Track 1) Hardware/software co-design** - Specification and refinement, design representation, system synthesis, partitioning, hardware-software interaction/interface, design space exploration, reconfigurable design, and model-based design.
- **Track 2) Domain and application-specific design techniques** - Analysis, design, and automation techniques for multimedia, medical, automotive, security, and other specialized application domains.
- **Track 3) Embedded software** - Compilers, memory management, virtual machines, scheduling, operating systems, real-time support, fault-tolerance, and middleware.
- **Track 4) Embedded systems architecture** - Architecture and micro-architecture design, exploration and optimization including application-specific, storage systems, memory and communication.
- **Track 5) Large-scale system architecture** - Multi-core, GPU, heterogeneous systems, system-level communication, and networks-on-chip architectures.
- **Track 6) Systems of systems** - Design and optimization of data centers, cloud computing, heterogeneous embedded systems, cyber-physical systems, etc.
- **Track 7) Simulation, validation and verification** - Hardware/software co-simulation, verification and validation methodologies, formal verification, hardware-accelerated simulation, test methodology, design for testability, specification languages/models, and benchmarks.
- **Track 8) Power-aware systems** - Power- and energy-aware system design and methodologies ranging from low-power embedded systems to energy-efficient large scale systems such as Green IT and Smart Grid.
- **Track 9) Industrial practices and case studies** - Practical impacts on current and/or future industries with applications of the state-of-the-art methodologies and tools in various application areas including wireless, networking, multimedia, automotive, medical systems, sensor networks, etc.

Submission Information

- Papers should represent original work, not published or submitted for publication in other forums.
- A blind review process will be enforced. Authors should **not** reveal authorship directly or indirectly through references.
- Papers must be in PDF format and should not exceed **10 pages** in ACM two-column format (9pt on 8.5"x11" letter size paper). For formatting instructions and templates, visit the [ACM web site](#). 10 pages is an upper limit. Authors are encouraged to submit shorter (e.g., 6 pages) papers if this better fits the nature and content of the paper.
- Formal proceedings will be published on CD-ROM and web page forms (copyright by ACM and IEEE).

Important Dates

- Abstract submission:
March 28, 2012
April 04, 2012
- Full paper submission:
April 04, 2012
April 11, 2012
- Notification of acceptance:
July 03, 2012
- Camera-ready version:
July 31, 2012
- Conference:
October 7-12, 2012
(Tampere, Finland)