DATE 09 Design, Automation & Test in Europe
20-24 April, 2009 - Nice, France
The European Event for Electronic System Design & Test

Embedded Software Track

- First Call for Papers -

DATE

DATE (Design, Automation and Test in Europe, www.date-conference.com) is the leading European event in all aspects of electronic system design automation and test. DATE has a tradition to combine high-class contributions to theory and formal methods with presentations of practical applications and an exhibition in one event, thus fostering the interaction of industry and academia. The exhibition is key to this development as it attracts a large number of industrial designers.

Embedded Software Track @ DATE

With its strong background in hardware design and design automation, DATE has started to include complementary embedded software topics that are closely related to the physical properties of a system. There are huge benefits in bringing together scientists that work on hardware platforms and design, with others that work on embedded software and applications with strong ties to physical platform properties.

To emphasize its importance, DATE has established an **Embedded Software Track** with several topics putting it at equal level with the traditional hardware and system-oriented tracks. The Embedded Software Track follows the same pattern of combining theory and practice that was instrumental to the success of DATE. Within few years, Embedded Software has become the fastest growing track at DATE with a more than **50% increase in paper submissions** in 2008.

Schedule

Submission process see www.date-conference.com

Paper submission deadline	**7 September 2008**
Conference and exhibition	**20-24 April 2009, Nice, France**

Topics

E1 Real-time, Networked, and Dependable Systems

Real-time programming languages and software; formal models for real-time systems; software performance analysis; worst case execution time analysis; scheduling and software estimation; real-time system optimization; verification; tools and design methods; adaptive real-time systems; dependable systems; software for safety critical systems; software architectures for sensor networks and networked control applications; network control and QoS for embedded applications.

*Co-Chairs: **Petru Eles**, Linkoeping University, Sweden; **Luis Almeida**, Universidade de Aveiro, Portugal*

E2 Compilers and Code Generation for Embedded Systems

Software-centric system design exploration; software synthesis; compilers; code generation (e.g. C from matlab); dynamic compilation for embedded systems; software tool chain; generation for design space exploration (compilers, simulators, synthesis tools); retargetable compilers for MPSOC and reconfigurable platforms; compilers for multi-core systems.

*Co-Chairs: **Shuvra Bhattacharyya**, University of Maryland, USA; **Rainer Leupers**, RWTH Aachen, Germany*

E3 Model-based Design for Embedded Systems

Model-based methods for component-oriented design; testing; system verification; software/system integration and deployment; domain specific modeling languages; metamodeling; semantic foundation for composition of domain specific tool chains.

*Co-Chairs: **Ed Brinksma**, TU Eindhoven ESI, The Netherlands; **Pieter Mosterman**, The Mathworks, USA*

E4 Software Architectures and Principles for Embedded MpSoC and Multi-core Systems

Software for multi-core systems; support for transactional memory; virtualization; software support for SMP and NUMA architectures; software support for reconfigurable systems and components (e.g. embedded FPGA); software support for (embedded) GPUs and coprocessors; middleware architectures; design methods; formal models and verification.

*Co-Chairs: **Chris Schläger**, AMD Operating System Research Center, Dresden, Germany; **Pascal Felber**, Université de Neuchâtel, Switzerland*

E5 Embedded Software Applications - Architectures, Tools, and Methodologies

Real-time and dependable software applications; embedded run-time environments – practice and applications; embedded software QA and certification; design processes and experience in dependable software design; model driven design in industrial practice; embedded software architectures and applications in aerospace, automotive, industrial, medical industries; embedded software in wireless and consumer electronics applications; sensor network applications.

*Co-Chairs: **Wolfgang Ecker**, Infineon Technologies AG, Germany; **Stuart Hutchesson,** Rolls Royce, UK.*

Embedded Software Track Chair: ***Rolf Ernst**, TU Braunschweig, Germany*

DATE Sponsor Societies

ACM - SIGDA, EDA Consortium, European Design and Automation Association (EDAA), ECSI, IEEE Computer Society, IEEE Council on Electronic Design Automation (CEDA), RAS

DATE Technical Co-Sponsor Societies

ACM - SIGBED, IEEE Solid-State Circuits Society (SSCS), IFIP, The Institution of Engineering and Technology (IET)