

SAC 2007 22nd ACM Symposium on Applied Computing Seoul, Korea, March 11-15 2007



http://www.acm.org/conferences/sac/sac2007/

Important dates

Sept. 8, 2006: Paper Submission Oct. 16, 2006: Author Notification Nov. 5, 2006: Camera-Ready

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Seoul National University - Korea

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consultant - USA

I-Ling Yen

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Special Track

Embedded Systems: Applications, Solutions, and Techniques

http://www2.ing.unipi.it/sac07/

CALL FOR PAPERS

One of the most lively and challenging research areas in computer science today is represented by the embedded systems modeling/design/development. The growing need of system resources in embedded devices often leads to the adoption of application-specific solutions, that must be pursued taking also into account a number of tight constrains on performance, memory size, cost, etc. Moreover, solutions can be proposed at different abstraction levels, shaping system features by operating on architecture, middleware, compiler and software architecture as well. Issues coming from the distributed and/or real-time nature of some embedded applications contribute to make the overall scenario more and more complex. Tackling new problems emerging in this setting, calls for a joint effort by academia and industry.

The focus of this conference track is on the application of both novel and well-known techniques to the embedded systems design and development. Particular attention is paid to solutions that require expertise on different topics (e. g. computer architecture, OS and RTOS, compilers, software engineering, simulation). In this setting, researchers and practitioners from academia and industry will get a chance to compare experimentations, propose new ideas, and discuss future directions in fields related to the development of embedded systems.

Topics of interest

Methodologies and tools for design-space exploration - Heterogeneous architectures - System-level design - Simulation and benchmarking for embedded systems - Energy-saving techniques - Threads and parallelization over SoC and platform-based systems - Software architectures of embedded systems -Multimedia support and data streaming in embedded systems - Use of embedded systems within Information Systems and distributed systems - Issues in networked embedded systems - OS & RTOS for embedded systems - Hardware/software support for real-time applications - Compilation strategies for performance enhancement vs. footprint control - Code transformation/parallelization for embedded systems - Middleware and runtime support for embedded systems - Testing, debugging, profiling and performance analysis of embedded systems - Security-related dedicated systems - Java-based dedicated systems - Special-purpose appliances and applications - Case studies

Submission Guidelines

Original papers addressing the listed topics of interest will be considered. Each submitted paper will be fully refereed and undergo a blind review process.

The accepted papers in all categories will be published in the ACM SAC 2007 proceedings. Details about paper submission will be available on the track website at http://www2.ing.unipi.it/sac07/

Questions can be directed to the Track Chairs. Additional details will be available at the track home page at http://www2.ing.unipi.it/sac07 and at the conference home page at http://www.acm.org/conferences/sac/sac2007/.