



SAC 2010 24th ACM Symposium on Applied Computing

Sierre, Switzerland, March 22-26, 2010

<http://www.acm.org/conferences/sac/sac2010>



Important Dates

Sept. 8th, 2009

Paper Submission

Oct. 19th, 2009

Acceptance Notification

Nov. 2nd, 2009

Camera-Ready Copies

SPECIAL TRACK

Embedded Systems

Applications, Solutions, and Techniques

Track Chairs

A. Bechini and C. A. Prete
- Univ. of Pisa, Italy

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Higher and higher computing power is demanded by CPU-enabled devices currently used in everyday life. Embedded systems are nowadays present in an impressive number of different applications, from consumer electronics to biomedical systems, and the success of their employment is often determined by their functionality/cost ratio. Embedded software has recently developed towards new complexity levels, posing new challenging issues: the adoption of further flexible programming paradigms/architectures is becoming almost mandatory, taking also into account the multithreaded structure required to adequately exploit possible multicore CPUs. Nonetheless, the market pressure calls for the employment of new methodologies for shortening the development time and for driving the evolution of existing products. New efficient solutions to problems emerging in this setting can be put into action by means of a joint effort of academia and industry.

The focus of this conference track is on the application of both novel and well-known techniques to the embedded systems development. Particular attention is paid to solutions that require expertise in different fields (e.g. computer architecture, OS, compilers, security, software engineering, simulation).

The track will benefit also from direct experiences in the employment of embedded devices in "unconventional" application areas, so to show up new challenges in the system design/development process.

In this setting, researchers and practitioners from academia and industry will get a chance to keep in touch with problems, open issues and future directions in the field of development of dedicated applications for embedded systems.

Topics of Interest

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| <ul style="list-style-type: none"> • Methodologies and tools for design-space exploration • Simulation techniques for ES • System-level design • Power-aware design techniques and computing • Testing, debugging, profiling and performance analysis of ES • Networked sensor devices and systems • SoC-based ES and applications • Middleware solutions for ES • Multithreading in ES design and development • Java embedded computing | <ul style="list-style-type: none"> • ES exploitation within Information Systems • Multimedia management in ES • Security and dependability support within ES • ES contribution in meeting security goals • OS & RTOS for embedded systems • HW/SW support for real-time applications • Compilation strategies for performance enhancement vs. footprint control • Code transformation and program parallelization for ES • Special-purpose appliances and applications • Case studies |
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Submissions

Accepted papers will be published in the ACM SAC 2010 Proceedings.
Instructions/conditions on the submission procedures are available on the track web site:

<http://www.ing.unipi.it/sac10>