



SAC 2006

21st ACM Symposium on Applied Computing

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<http://www.acm.org/conferences/sac/sac2006/>



Important dates

Sept. 3th, 2005:

Paper Submission

Oct. 15, 2005:

Author Notification

Nov. 5, 2005:

Camera-Ready Copy Due

Track Chairs

Alessio Bechini

Cosimo Antonio Prete

University of Pisa

a.bechini@ing.unipi.it

prete@iet.unipi.it

François Bodin

IRISA, Rennes, France

bodin@irisa.fr

Program Committee

Sandro Bartolini

University of Siena - Italy

Valérie Bertin

ST Microelectronics - France

Giorgio Buttazzo

University of Pavia - Italy

João Manuel Paiva Cardoso

University of Algarve - Portugal

Thao Dang

VERIMAG - France

Marc Engels

FMTC, Leuven - Belgium

Pierfrancesco Foglia

University of Pisa - Italy

Roberto Giorgi

University of Siena - Italy

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Niraj K. Jha

Princeton University - USA

Peter Knijnenburg

Leiden Univ. - The Netherlands

Andreas Krall

TU Wien - Austria

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National Taiwan Univ. - Taiwan

Ákos Lédeczi

Vanderbilt University - USA

Gokhan Memik

Northwestern University - USA

Michael O'Boyle

University of Edinburgh - UK

Richard Schantz

BBN Technologies - USA

Henk Sips

TU Delft - The Netherlands

Jean-Pierre Talpin

INRIA/IRISA - France

Stamatis Vassiliadis

TU Delft - The Netherlands

Miroslav Velev

consultant - USA

I-Ling Yen

University of Texas at Dallas - USA

Special Track

Embedded Systems: Applications, Solutions, and Techniques

<http://www.ing.unipi.it/sac06/>

CALL FOR PAPERS

Embedded systems can be regarded today as some of the most lively research and industrial targets. In this field, the ever-increasing demand for computing power and any sort of system resources continuously challenges state-of-the-art design methodologies and development techniques. Most of the complexity of these tasks comes from the need to satisfy tight constraints on performance, memory size, code size, power consumption, appliance weight and dimension, possible real-time behaviors, maintainability, scalability, security, time-to-market and, last but not indubitably least, cost. In this scenario, solutions can be proposed at different levels of abstraction, making use of an assortment of tools and methodologies: both the hardware and software components must be taken into account. Moreover, the networked nature of many embedded systems raises new issues about their proper development. Tackling new problems emerging in this complex scenario, calls for a joint effort by academia and industry.

The focus of this track, which is at its fourth edition this year, 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 - System-level design - Simulation techniques for embedded systems - Benchmarking for embedded systems - Power-saving design techniques - Threads and parallelization over SoC and platform-based systems - Embedded systems within Information Systems and distributed systems - Employment of DSPs in embedded systems - Software architectures of embedded systems - Multimedia support and data streaming in embedded systems - Issues in networked embedded systems - Management of networked sensor devices - OS & RTOS for embedded systems - Hardware/software support for real-time applications - WCET analysis in real-time systems development - Compilation strategies for performance enhancement vs. footprint control - Code transformation and parallelization 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 2006 proceedings.

Details about paper submission will be available on the track website at <http://www.ing.unipi.it/sac06/>

Questions can be directed to the Track Chairs. Additional details will be available at the track home page at <http://www.ing.unipi.it/sac06/> and at the conference home page at <http://www.acm.org/conferences/sac/sac2006/>.