ARCS 2004

17TH INTERNATIONAL CONFERENCE ON ARCHITECTURE OF COMPUTING SYSTEMS

- ORGANIC AND PERVASIVE COMPUTING -

WORKSHOP

"Adaptive Architectures for mobile Terminals"

Augsburg, Germany

March 26, 2004

http://www.uni-augsburg.de/arcs04

Submission Deadline for Workshop Contributions: December 10, 2003

The trend for ubiquitous and pervasive computing, combined with the trend to digitize and computerize everyday appliances and information, has led to an enormous complexity of hardware as well as software systems. However, mobile or wearable devices are still much more limited in terms of available resources, than their immobile counterparts. The combination of those two facts leads to technologies and architectures for mobile terminals, which will utilise given hardware and software resources more economically by adaptively reusing them for different applications.

A general increase in available computing resources in mobile appliances will make new applications for adaptive systems possible, leading to a much higher adaptation of such systems to user needs and their preferences.

One major application field of reconfigurable / adaptive system architectures are software defined radios (SDR). Reconfiguration and adaptation is used here to build a multimode, multiband and multifunctional wireless device that can be adapted and enhanced by using software updates, rather than replacing the old terminal with a more recent one. SDR terminals consist of a reconfigurable hardware sub-system as well as software, allowing run-time reconfiguration / adaptation. Standards used in SDR terminals can be transferred to other application domains. The ideas developed in the field of SDR are applicable in other application domains as well.

Given these new flexible architectures, new concepts and applications become possible, such as seamless and transparent wireless roaming, over-the-air download of new features or software patches and services, advanced networking capabilities (peer to peer / ad-hoc networking), unified communication crossing existing communication boundaries.

This workshop is a forum for identification and exchange of concepts and technologies referring to the adaptation and reconfiguration of hardware and software systems. It originates from research in the field of software defined radio, but is not limited to this field of application.

The workshop proceedings are planned to be published in the 'Lecture Notes in Informatics' (LNI) series by GI-Verlag. Papers should not exceed 8 pages length (approximately 1500 words) in GI series style (see: http://www.gi-ev.de/LNI/index.html). We accept only electronic submissions in Postscript or PDF format. The URL of the submission site is http://www.sra.uni-hannover.de/arcs_04/aamt.

Workshop Attendees

Researchers, engineers, managers from companies, universities or other educational institutions, which are engaged in research, specification, design, implementation, etc. of reconfigurable / adaptive systems or will be dealing with this subject in the near future.

Workshop Topics

Submissions to this workshop should deal with all aspects of reconfigurable and adaptive hardware or software architectures for mobile terminals respectively their computing and communication environment. Possibly focusing on:

- Architectures for reconfiguration or adaptivity
- Validation of hardware and / or software systems configurations
- Hardware technologies supporting reconfiguration and adaptivity
- Software technologies supporting reconfiguration and adaptivity
- Description languages for reconfigurable / adaptive systems
- Real-life applications of reconfigurable / adaptive systems
- Standards

IMPORTANT DATES

December 10, 2003 Paper submissions

January 15, 2004 Notification of acceptance / rejection

January 31, 2004 Camera-ready paper due

Official Address

For any questions related to ARCS 2004 please refer to our web site:
http://www.uni-augsburg.de/arcs04 or e-mail to: arcs04@informatik.uni-augsburg.de.
For questions related to this workshop please contact Thorsten Schöler.

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