DSD'2007
10th EUROMICRO CONFERENCE ON
DIGITAL SYSTEM DESIGN
Architectures, Methods and Tools
Mövenpick Hotel in Lübeck, Germany
August 29 - 31, 2007
Call for Papers

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The **Euromicro Conference on Digital System Design (DSD)** addresses all aspects of (embedded) digital and mixed hardware/software system engineering.

It is a discussion forum for researchers and engineers working on state-of-the-art investigations, development and applications.

It focuses on an advanced system design and design automation concepts, paradigms, methods and tools, as well as modern implementation technologies enabling an effective and efficient development of high-quality systems for important and demanding applications in fields such as communication and networking, measurement and instrumentation, healthcare and medicine, military, space, avionic and automotive systems, security, multimedia and ambient intelligence.

The DSD proceedings are published by the IEEE Computer Society Press.

The main areas of interest are the following:

T1: **Systems-on-a-chip/in-a-package**: generic system platforms and platform-based design; network on chip; multi-processors; system on re-configurable chip; system FPGAs and structured ASICs; rapid prototyping; asynchronous systems; power, energy, timing, predictability and other quality issues; intellectual property, virtual components and design reuse.

T2: **Programmable/re-configurable architectures**: re-configurable system architectures, processor, communication, memory and software architectures with focus on application specific and/or embedded computing, co-processors; processing arrays; programmable fabrics; embedded software; arithmetic, logic and special-operator units.

T3: **System, hardware and embedded software specification, modeling and validation**: design languages; functional, structural and parametric specification and modeling; simulation, emulation, prototyping, and testing at the system, register-transfer, logic and physical levels; co-simulation and co-verification.

T4: **System, hardware and embedded software synthesis**: system, hardware/software and embedded software synthesis; behavioral, register-transfer, logic and physical circuit synthesis; multi-objective optimization observing power, performance, communication, interconnections, layout, technology, reliability, robustness, security, testability and other issues; (dynamic) management of computational resources, power, energy etc.; design environments for embedded systems.

T5: **Emerging technologies, system paradigms and design methodologies**: optical, bio, nano and quantum technologies and computing; self-organizing and self-adapting (wireless) systems; wireless sensor networks; ambient intelligence and augmented reality; ubiquitous, wearable and implanted systems; deep sub-micron design issues.

T6: **Applications of (embedded) digital systems with emphasis on demanding and new applications in fields such as**: (wireless) communication and networking; measurement and instrumentation; health-care and medicine; military, space, avionic and automotive systems; security; multimedia, instrumentation and ambient intelligence.

Important Dates:

- Submission of papers: **March 1, 2007**
- Notification of acceptance: **May 1, 2007**
- Deadline for final version: **June 4, 2007**
- Deadline for registration: **June 9, 2007**

DSD'07 web page:
http://dsd07.felk.cvut.cz/

Euromicro web page:
http://www.euromicro.org

DSD web page:
http://www2.ele.tue.nl/dsd/

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Special Sessions:

SS1: Resource Aware Sensor Network Systems: The special session on "Resource-Aware Sensor Network Systems" addresses concepts, implementations and applications of sensor network systems, as well as, new architectural models and hardware solutions in the sensor network domain.
Session Organizer: M. Handy, University of Rostock (DE)
More information: http://www-md.e-technik.uni-rostock.de/ma/hm13/dsd07/

SS2: Advanced issues of Networks-on-Chip: This special session addresses all aspects related to concepts, implementations and applications of networks-on-chip as well as related EDA tools. Nonetheless, its focus is on advanced issues and interdisciplinary topics like system control, design flow, application studies and the outlook on future developments in NOC design.
Session organizer: Claas Cornelius, University of Rostock (DE)
More information: http://www-md.e-technik.uni-rostock.de/ma/cc14/dsd07/

SS3: Dependability and Testing of Digital Systems: The special session on "Dependability and Testing of Digital Systems" addresses emerging issues, hot problems, new solution methods and their hardware and software implementations in all fields of digital and mixed-signal system dependability and testing. Its special focus is on the dependability and testing related to the SoC technology and modern embedded applications.
Session Organizer: Zdeněk Kotásek, Brno University of Technology (CZ)
More information: http://dsd07.felk.cvut.cz/test/

Submission of papers:

Regular Papers: Submissions can be made that describe innovative work in the scope of the Conference, and especially, in any of the above main areas of interest (***please indicate the topic area***). Prospective authors are encouraged to submit their manuscripts for review electronically trough the following web page (http://dsd07.felk.cvut.cz) or by sending the paper to the Program Chair via email kubatova@dsd07.felk.cvut.cz (only in the case of the web access problem) before the deadline for submission. Each manuscript should include the complete paper text, all illustrations, and references. The manuscript should conform to the required format single-spaced, double column, A4/US letter page size, 10-point size Times Roman font, up to 8 pages. In order to conduct a blind review, no indication of the authors' names should appear in the submitted manuscript.

Case Study and Application Papers: Submissions can be made which report on state-of-the-art digital systems, design methods and/or tools, and (embedded) applications. Papers discussing lessons learned from practical experience, demanding or new applications, and experimental research are particularly encouraged. Manuscripts may be submitted in the same way as regular papers.

The Program Committee will decide if papers will be accepted for a long presentation (30 minutes), short presentation (15 minutes), or as a poster. For long and short presentations, 8 pages will be assigned in the published proceedings. A poster presentation will be assigned 4 pages. Papers exceeding the page limit will be charged 50 Euro per page in excess. If the paper is accepted, at least one of the authors must pre-register and pay the conference fee before the deadline for submitting the camera-ready paper. Otherwise the paper will not be published in the proceedings.

Check List:

Prospective authors should check that the following items are attached and guidelines followed while submitting the papers for refereeing purpose.

- The paper and its title page must **not contain** the name(s) of the author(s), or their affiliation
- The first page of the paper should have the following information:
    - Title of the paper
    - Conference topic area (write the most appropriate topic area)
    - Brief Abstract of the paper
    - Up to six keywords
    - Track Area

Contact Information:

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