final call for papers

DATE 10

Design, Automation & Test in Europe

ICC, Dresden, Germany
March 8 - 12, 2010

The 13th **DATE conference and exhibition** is the main European event bringing together designers and design automation users, researchers and vendors, as well as specialists in the hardware and software design, test and manufacturing of electronic circuits and systems. It puts strong emphasis on ICs/SoCs, reconfigurable hardware and embedded systems, including embedded software.

The five-day event consists of a **conference** with plenary invited papers, regular papers, panels, hot-topic sessions, tutorials and workshops, two special focus days and a track for executives. The scientific conference is complemented by a commercial **exhibition** showing the state-of-the-art in design and test tools, methodologies, IP and design services, reconfigurable and other hardware platforms, embedded software, and (industrial) design experiences from different application domains, e.g. automotive, wireless, telecom and multimedia applications. The organisation of user group meetings, fringe meetings, a university booth, vendor presentations and social events offers a wide variety of extra opportunities to meet and exchange information on relevant issues for the design and test community. Special space will also be allocated for EU-funded projects to show their results.

the conference

The **conference** addresses all aspects of research into technologies for electronic and (embedded) systems engineering. It covers the design process, test, and tools for design automation of electronic products ranging from integrated circuits to distributed large-scale systems. This includes both hardware and embedded software design issues. The conference scope also includes the elaboration of design requirements and new architectures for challenging application fields such as telecom, wireless communications, multimedia and automotive systems. Persons involved in innovative industrial designs are particularly encouraged to submit papers to foster the feedback from design to research. Panels, hot-topic sessions and embedded tutorials highlight and inform about emerging topics.

Special Days in the programme will focus on two areas bringing new challenges to the system design community:

Nanoeletronics: Nanotechnology will permeate industrial products in the years to come, and will be present ubiquitously in various forms and means. In particular, nanoelectronic circuits will exploit new materials (like carbon) to produce smaller and faster transistors, as well as integrated sensors with direct electronic coupling to the environment. The special day will address new nanotechnologies, their integration into electronic systems, and the EDA tools and methods for nanoelectronics.

Cool Electronic Systems: The search for low-power/energy systems is a cross-cutting issue that affects electronics systems designs in many ways, from circuits to architectures, from communication structures to software. The trend toward energy-conscious (green) system design affects products of various kinds, from the home to the office, from telephone/communicators to embedded computing. This special day will address new methods and tools for circuit and system design at the frontier of minimum power/energy operation.

On the first day of the DATE event, half- and full-day in-depth technical tutorials are given by leading experts in their respective fields. The tutorials are well suited for researchers, tool developers and system designers.

Friday Workshops concentrate on specialised and novel topics.

the exhibition

The conference is complemented by a large **exhibition** and unique networking opportunity for vendors of tools and services for hardware and embedded software for the design, development and test of Systems-on-Chip, IPs, Embedded Systems, ASICs, FPGAs and PCBs including a broad range of design reuse technologies and services.

To inform attendees on commercial and design related topics, there will be a full programme in the Exhibition Theatre which will combine presentations by exhibiting companies and selected conference special sessions.

topic areas for submission

Within the scope of the conference, the main areas of interest are organised in the following tracks. Submissions can be made to any of the track topics. For detailed descriptions of the track topics, please refer to the DATE Web site.

Track D: Design Methods, Tools, Algorithms and Languages, addressing design automation and design tools for electronic and embedded systems. Emphasis is on methods and tools related to the use of computers in designing products. This includes designer feedback on existing design methods and tools as well as to initiate discussions on requirements of future system architectures, design flows and environments.

This track is organised in the following topics:

D1 System Specification and Modelling

D2 MPSoC and System Design Methods

D3 System Synthesis and Optimisation

D4 Simulation and Validation

D5 Design of Low Power Systems

D6 Power Estimation and Optimisation

D7 Emerging Technologies, Systems and Applications

D8 Formal Methods and Verification

D9 Network on Chip

D10 Architectural and Microarchitectural Design

D11 Architectural and High-Level Synthesis

D12 Reconfigurable Computing

D13 Logic and Technology Dependent Synthesis for Deep-Submicron Circuits

D14 Physical Design and Verification

D15 Virtualisation Technologies

D16 Analogue and Mixed-Signal Systems and Circuits

D17 Interconnect, EMC, ESD and Packaging Modelling

Track A: Applications Design, is devoted to the presentation and discussion of design experiences with a high degree of industrial relevance, as well as innovative design methodologies and applications of specific design technologies in an industrial context. Contributions should illustrate state-of-the-art designs, which will provide viable solutions in tomorrow's silicon and embedded systems.

Designs that achieve a specific record in terms of performance, power management or any other concrete advantage compared to the state-of-the-art for a given application domain should also be submitted to this track.

This track is organised in the following topics:

A1 Signal Processing for Multimedia

A2 Wireless Communication and Networking

A3 Automotive

A4 Secure Embedded Implementations

A5 Space and Aeronautics Avionics Application Design

A6 Sensor Networks and Emerging Applications

A7 Application of Reconfigurable and Adaptive Systems

A8 Multi-core Platforms

A9 Analogue and Mixed-Signal System Implementations

Track T: Test Methods, Tools and Innovative Experiences, addressing design-oriented embedded test solutions as well as defect analysis, modelling, test generation and silicon debugging. Emphasis is on both system- and chip-level test.

This track is organised in the following topics:

T1 System and Industrial Test

T2 Design for Test and BIST

T3 Test Generation, Simulation and Diagnosis

T4 On-Line Testing and Fault Tolerance

T5 Test for Variability, Reliability and Defects

T6 Analogue, Mixed-Signal, RF and Mixed-Technology Test

Track E: Embedded Systems Software is devoted to modelling, analysis, design and deployment of Embedded Software. Areas of interest include methods, tools, methodologies and development environments. Emphasis will also be on embedded software platforms, software integration, adaptive real-time systems, and dependable systems.

This track is organised in the following topics:

E1 Real-time, Networked, and Dependable Systems

E2 Compilers and Code Generation for Embedded Software

E3 Model-based Design for Embedded Systems

E4 Embedded Software Architectures and Principles

E5 Embedded Software Applications - Architectures, Tools and Methodologies

In addition to the above conference tracks, we welcome proposals for **Special Sessions, Tutorials and Friday Workshops,** and submissions for the **Special Days** on **Nanoelectronics** and **Cool Electronic Systems.**

committees

A full list of the executive and programme committee members is available on the DATE Web site.

sponsors

The event is sponsored by the European Design and Automation Association, the EDA Consortium, the IEEE Computer Society (TTTC), the IEEE Council on EDA, ECSI, ACM-SIGDA, and RAS. In cooperation with ACM-SIGBED, IEEE Solid-State Circuits Society (SSCS) and IET.

information

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To add your name to the mailing list go to the Web site:
www.date-conference.com.

D, A, T and E papers
Deadline is Sunday, September 6, 2009

Special Session proposals
Deadline is Sunday, September 6, 2009

Tutorial proposals
Deadline is Sunday, September 6, 2009

Friday Workshop proposals
Deadline is Sunday, September 6, 2009

Exhibition Theatre
Deadline is Saturday, October 10, 2009

Notification of acceptance
Deadline is Friday, November 6, 2009

Camera-ready paper due date
Deadline is Monday, November 30, 2009

University Booth proposals
Deadline is Friday, January 15, 2010

INSTRUCTIONS submission instructions

All manuscripts for any technical topic of the D, A, T and E tracks must be submitted for review electronically, following the instructions on the conference Web page:

www.date-conference.com

The accepted file format is PDF. Any other format and manuscripts received in hard-copy form will not be processed.

Papers can be submitted for either formal oral presentation or for interactive presentation. Oral presentations require novel and complete research work supported by experimental results. Interactive presentations are expected to articulate emerging and future design, verification and test problems including work in progress and identify open problems that merit innovative future research. These presentations are given on a laptop in a face-to-face discussion area.

Submissions should not exceed 6 pages in length for oral-presentation papers and 4 pages in length for interactive-presentation papers, and should be formatted as close as possible to the final format: A4 or letter sheets, double column, single spaced, Times or equivalent font of minimum 10pt (templates are available on the DATE Web site for your convenience). To permit blind review, submissions should not include the author names. Any submission not in line with the above rules will be discarded.

All papers will be evaluated with regard to their suitability for the conference, originality and technical soundness. The Programme Committee reserves the right to reorient oral-presentation papers to interactive-presentation and vice

versa, to obtain the most suitable presentation format. Submissions simultaneously under review or accepted by another conference, symposium or journal will be rejected. The DATE conference will work cooperatively with others to check for double-submissions. It is mandatory that authors of accepted presentations attend to present their work at the conference and also that they pay an appropriate registration fee.

special sessions

Special Sessions can take the form of **Panels,** discussing visionary and/or controversial issues, **Hot-Topic Sessions,** dealing with the introduction and discussion of new R&D problems, and **Embedded Tutorial Sessions,** addressing trends in the technical domains that are of interest to the conference participants.

Special Session proposals consist of an extended summary of up to 1500 words describing the session content and format, and must be submitted via the Web site by Sept. 6, 2009.

Contributors of accepted special sessions will be asked to submit final texts or statements of panellists, as appropriate, for publication in the Proceedings (deadline Nov. 30, 2009). Panel sessions are entitled to one page in the Proceedings, whereas Embedded Tutorials and Hot Topic sessions are allocated a maximum of 6 pages per presentation. For more information, please contact:

Hot Topic and Embedded Tutorial Sessions

Wolfgang Rosenstiel   rosenstiel@informatik.uni-tuebingen.de
Tel: +49 7071 29 75482   Fax: +49 7071 29 5062

Panel Sessions

Donatella Sciuto   sciuto@elet.polimi.it
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tutorials

On the first day, half- and full-day technical tutorials on selected topics will be given by leading experts in their respective fields. The proposal should motivate the topic and its relevance for both academia and industry, describe the target audience (who? how many? match with typical DATE audience?), the reason for a tutorial, (why a tutorial, why now, why 0.5/1 day), tutorial objectives and a clear planning hereto (tutorial outline and speakers, what will be done to target the audience). Proposals should be sent by Sept. 6, 2009 to:

Pol Marchal   Pol.Marchal@imec.be
Tel: +32 16 28 82 21   Fax: +32 16 28 15 15

university booth

A University Booth will be organised in order to help the transfer of technology to industry. Research institutes and universities interested in demonstrating their prototypes and pre-commercial results should contact by Jan. 15, 2010:

Volker Schoeber   schoeber@edacentrum.de
Tel: +49 511 762 19688   Fax: +49 511 762 19695

Jens Lienig   jens@ieee.org
Tel: +49 351 463 34742   Fax: +49 351 463 37183

exhibition theatre

An open discussion forum in the midst of the large electronic systems design exhibition: The programme combines expert panel sessions and customers, testimonials. The aim is to offer exhibition visitors a fresh view on the key industrial and business issues in the electronic systems design market. Submissions are invited from industry consortia, technology groups, standards bodies, or any person with opinions on future industry trends by Oct. 10, 2009 to:

Juergen Haase   haase@edacentrum.de
Tel: +49 511 762 19698   Fax: +49 511 762 19695

friday workshops

Proposals for Friday Workshops on emerging research and application topics are invited. Particularly suitable topics are those not directly covered in the technical programme and which have the potential to impact on future DATE technical areas in design and test of microelectronic systems. For information and detailed descriptions on how to propose a workshop, please refer to the Web site. Proposals should be sent by Sept. 6, 2009 to:

Peter Cheung   p.cheung@imperial.ac.uk
Tel: +44 207 594 6263   Fax: +44 207 581 4419

Nicola Nicolici   Nicola@ece.mcmaster.ca
Tel: +1 905 525 9140   Fax: +1 905 521 2922

fringe meetings

There are a limited number of rooms available for the organisation of fringe meetings (birds of a feather sessions) open to all DATE attendees, as well as for appropriate on-site closed meetings. Requests are considered in the order of their arrival, and should be directed to:

European Conferences   sue.menzies@ec.u-net.com
Tel: +44 131 225 2892   Fax: +44 131 225 2925

Requests for commercial meetings will incur the standard room charges.