

final call for papers

DATE 13

**Design, Automation
& Test in Europe**

**Grenoble, France
March 18 - 22, 2013**

www.date-conference.com

The 16th **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, a PhD forum, 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:

High-Performance Low-Power Computing

Electronic Technologies for Smart Cities

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 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 **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 website.

Track D: Design Methods and Tools, 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 Specifications, Models, and Methodologies
- D2 System Design, Synthesis and Optimization
- D3 Simulation and Validation
- D4 Design of Low Power Systems
- D5 Power Estimation and Optimisation
- D6 Emerging Technologies, Systems and Applications
- D7 Formal Methods and Verification
- D8 Network on Chip
- D9 Architectural and Microarchitectural Design
- D10 Architectural and High-Level Synthesis
- D11 Reconfigurable Computing
- D12 Logic Synthesis and Timing Analysis
- D13 Physical Design and Verification
- D14 Analog and Mixed-Signal Systems and Circuits
- D15 Modeling and Design for Signal and Power Integrity

Track A: Application 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. Contributions should illustrate state-of-the-art or record-breaking designs, which will provide viable solutions in tomorrow's silicon and embedded systems. In topic A7, there is the opportunity to submit short, 2-page papers that relate to industrial research and practice.

This track is organised in the following topics:

- A1 Green Computing Systems
- A2 Communication, Consumer and Multimedia Systems
- A3 Transportation, Management and Energy Generation Systems
- A4 Medical and Healthcare Systems
- A5 Secure Systems
- A6 Reliable and Reconfigurable Systems
- A7 Industrial Experiences Brief Papers

Track T: Test and Reliability, 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 Test for Defects, Variability, and Reliability
- T2 Test Generation, Simulation, and Diagnosis
- T3 Test for Mixed-Signal, Analog, RF, MEMS
- T4 Test Access, Design-for-Test, Test Compression, System Test
- T5 On-Line Testing and Fault Tolerance

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 Software Synthesis for Embedded Systems
- E3 Model-Based Design and Verification for Embedded Systems
- E4 Embedded Software Architectures
- E5 Cyber-Physical Systems

In addition to the above conference tracks, we welcome proposals for **Special Sessions, Tutorials** and **Friday Workshops**, and submissions for the Special Days on **High-Performance Low-Power Computing** and **Electronic Technologies for Smart Cities**.

COMMITTEES committees

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

SPONSORS sponsors

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

INFORMATION information

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

KEY DATES **submission key dates**

D, A, T and E papers
Deadline is Sunday, September 9, 2012

Special Session proposals
Deadline is Sunday, September 9, 2012

Tutorial proposals
Deadline is Sunday, September 9, 2012

Friday Workshop proposals
Deadline is Sunday, September 9, 2012

Exhibition Theatre
Deadline is Monday, October 22, 2012

PhD Forum
Deadline is Monday, November 5, 2012

Notification of acceptance
Deadline is Friday, November 16, 2012

Camera-ready paper due date
Deadline is Sunday, December 16, 2012

University Booth proposals
Deadline is Monday, January 14, 2013

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 website:

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. Submission of two-page papers in topic A7 (Industrial Experiences Brief Papers) will also be considered.

All papers 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 each paper is accompanied by at least one full conference registration fee payment at the speaker rate. In the case of no-shows, the conference organization may decide to remove the paper from the Proceedings.

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 website by Sept. 9, 2012.

Contributors of accepted special sessions will be asked to submit final texts or statements of panellists, as appropriate, for publication in the Proceedings (deadline Dec. 16, 2012). Panel sessions are entitled to one page per panellist in the Proceedings, whereas Embedded Tutorials and Hot Topic sessions are allocated a maximum of 6 pages per speaker. Submissions via www.date-conference.com. For more information, please contact:

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zebo.peng@liu.se

TUTORIALS

On Monday March 18, 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 half or full day), tutorial objectives, and a clear planning hereto (tutorial outline and speakers, what will be done to attract the audience). Proposals should be submitted before Sept. 9, 2012 via www.date-conference.com. More information:

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UNIVERSITY BOOTH

A University Booth will be organised in order to help the transfer of technology to industry. It should be noted that the University Booth is not intended for disseminating the results of collaborative projects for which there is a specific section in the exhibition hall. Research institutes and universities interested in demonstrating their prototypes and pre-commercial results should contact by Jan. 14, 2013:

Laurent Fesquet
Andreas Voerg

laurent.fesquet@imag.fr
voerg@edacentrum.de

PHD FORUM

phd forum

The PhD Forum is a poster session hosted by the European Design and Automation Association (EDAA) and ACM SIGDA for PhD students to present and discuss their research work with people in the design automation and system design community. It represents a good opportunity for students to get feedback on their research and for the industry to see academic work in progress. Submissions should be sent by Nov. 5, 2012 to:

Peter Marwedel

peter.marwedel@tu-dortmund.de

EXHIBITION THEATRE

exhibition theatre

An open discussion forum in the midst of Europe's largest electronic system 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. 22, 2012 to:

Juergen Haase

haase@edacentrum.de

FRIDAY WORKSHOPS

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 submitted before Sept. 9, 2012 via www.date-conference.com. More information:

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Cristiana Bolchini

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FRINGE MEETINGS

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 claire.cartwright@ec.u-net.com

Requests for commercial meetings will incur the standard room charges.