Call for Papers

**University Booth**

The University Booth fosters the transfer of academic work to industry. The University Booth is a part of the DATE exhibition area, giving students and professors of charge for presenters and their visitors. Research institutes and universities interested in demonstrating their mature prototypes and/or commercial results can find the submission details at www.date-conference.com/exhibition/booth

Submission deadline is 12 January 2020. For more information, please contact:

Frédéric Polit and Andreas Vorg, university-booth@date-conference.com

**European Projects**

DATE will have an entire section of the proceedings dedicated to European Projects, including but not limited to EU H2020 Projects and projects funded by the European Space Agency. Project Coordinators are invited to submit papers (up to six pages) presenting preliminary work or ideas, in progress or lessons learned from the project. The papers will be peer-reviewed and will be based on innovation and originality in particular. We invite all researchers to give visibility to papers addressing DATE topics. European Project papers should be submitted before 15 October 2019 via the DATE website. For more information, please contact:

Francisco Cazorla, european-projects@date-conference.com

**Exhibition Theatre**

The Exhibition Theatre, located in the exhibition area close to the booths, provides speaking opportunities to all interested exhibitors. The Exhibition Theatre programme includes a range of panel discussions and user presentations that give exhibitors an opportunity to present their technology and/or products. The Exhibition Theatre conference adheres to a dynamic overview of key technical and business issues in electronic design and test and provides networking opportunities with colleagues and other companies and projects, industry consortia, technology groups, standards bodies, or any other with opinion on future industry trends. Panels – discuss future trends, hot-topics technologies and business aspects of the Systems-on-Chip, EDA and IP markets. Panels combine invited industry experts and analysts for a more controversial look at the electronics design and test marketplace. Customer Testimonials – allow exhibiting companies the chance to demonstrate their technical expertise and the advantages of their products through the experiences of a consumer. More relevant to real-world designers than a regular sales pitch, offering engineers an insight into good working practices and current design methods, customer testimonial sessions provide an excellent way to draw a crowd at DATE. Special Sessions – a selection of sessions (hot-topics, tutorial) and invited speakers from the technical conference programme will be presented in the Exhibition Theatre, providing added value to exhibition visitors. Final deadline for Exhibition Theatre submissions: 27 October 2019. For more information, please contact:

Jürgen Haase, haase@edazentrum.de

**Friday Workshops**

DATE invites proposals for Friday Workshops on emerging research and application topics in design and test of microelectronic systems. Topics that are not directly covered in the DATE technical programme are a great way to draw a crowd at DATE. Proposals should be submitted electronically by 9 September 2019 via the DATE website. For more information, please contact:

Michael Glättli and Eli Beirazgadah, friday-workshops@date-conference.com

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Special Sessions

Special Sessions can take the form of (1) Panels, discussing visionary and controversial issues; (2) Hot-Topics Sessions, focusing on the introduction and discussion of emerging topics, challenges, and roadmaps for silicon photonics, model-driven design of intelligent and autonomous systems, high performance computing, coprocessor systems, embedded virtual machines, and enablers for high performance computing, including More-Than-Moore and beyond CMOS technologies, new memories and computing architectures, with special attention to scalability, reliability, security requirements.

Special Session proposals must consist of an extended summary of up to 1,500 words in a PDF file, describing the topic, the authors/speakers, plus the format and must be submitted via the DATE website by 15 September 2019.

The submitter of a Special Session proposal will be notified of acceptance or rejection of the proposal by 3 November 2019. It is the responsibility of the accepted Special Session proposers to contribute a draft manuscript of up to 30 pages by 28 November 2019. The proposed session chairs will be notified of the acceptance or rejection of their Special Session proposal by 28 November 2019. Panel sessions are entitled to one (1) page per panelist in the Proceedings. Hot Topic Sessions are allocated a maximum of six (6) pages per speaker, or one single paper for the entire session which should not exceed ten (10) pages. Submission of Special Sessions is allocated one single paper for the entire session which should not exceed ten (10) pages. As a rule of thumb, no more than four speakers per session should be planned for Hot Topics and Extended Tutorial Session.

For accepted special sessions, it is the responsibility of the Special Session organizers to ensure that by 28 November 2019 all the correspondingly named manuscripts from respective Special Sessions are technically sound and meet the editorial standards of the DATE Proceedings. The Special Session Chairs may decline the publication of the final manuscripts in the DATE Proceedings if the above responsibility is not fulfilled. For more information, please contact:

Giovanni De Micheli and Marco Casares-Rout, specialsessions@date-conference.com

**Monday Tutorials**

The tutorials for DATE 2020 are designed to provide audiences with introductions to important topics in the DATE technical programme, as hands-on tutorials on important tools or tools. Mid-career professionals can use the tutorials to extend their horizons. We welcome proposals for tutorials in the DATE technical areas. Proposals should be submitted before 8 September 2019 via the DATE submission website. For more information, please contact:

Mechal Tahseen, monday-tutorials@date-conference.com

**PhD Forum**

The PhD Forum is a poster session hosted by EDAA, ACM 1SCC and IEEE CEDA for PhD students who have completed their PhD thesis within the last 12 months or who are in the final stages of completing their PhD thesis. The PhD Forum enables PhD students to present their work, exchange ideas, receive feedback from experts and students as well as potential future project partners. Proposals should be submitted electronically by 7 November 2019 via the DATE website. For more information, please contact:

Robert Wille, PhD-forum@date-conference.com

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**Information**

www.date-conference.com

**Conference Organization**

K. I. T. Group GmbH Dresden

Bautzner Str. 117–119

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Silicon Photonics has emerged as a promising solution in the area of high-performance computing. This emerging technology opens new doors for multi-disciplinary research questions and low-power computing. Low-power computing is a critical problem in the core of the computer CAD and design tools to explore the design space of the resulting complex devices and systems. DATE calls for papers and silicon photonics will focus on data communication via photonics for both data center/high-performance computing and optical networks on chip applications. Industrial and academic contributions will highlight novel research on devices and integrated circuits. The symposium will also feature talks on design automation and link-level simulations. An important part of the symposium will focus on two areas bringing new challenges to the system design community: how the massive data centers are able to support the world electricity consumption would be just to keep internet and their servers running. By moving cognitive computation intense tasks locally on embedded edge devices, not only large-scale systems. This includes both hardware and embedded software design approaches. The Conference aims to bring together researchers and practitioners from academia and industry to present state-of-the-art results and new ideas on topics related to all aspects of research into technologies for electronic and conference and exhibition (e.g. speech recognition) working on portable mobile devices, which however perform also be allocated for EU-funded projects to show their results.

Applications in health, automotive, robotics, or smart cities applications. 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.

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Topic Areas for Submission

Within the scope of the conference, the main areas of interest are organised in the following tracks. Submissions should be made to any of the track topics. For detailed descriptions of the topics, please refer to the DATE website www.date-conference.com

Track D: Design Methods and Tools addresses design automation, design tools and hardware/software co-design for electronic and embedded systems. The subtopics are on methods, algorithms, and tools related to the use of computers in designing complete systems. This track’s focus includes improvements on existing design methods and tools and as well forward-looking approaches to model and design future system architectures, design flows, and design tools.

This track is organised in the following topics:

DT1 System Specification and Modelling

DT2 System Simulation and Validation

DT3 System and Architecture Design

DT4 Design and Test for Analog and Mixed-Signal Circuits and Systems, and MEMS

DT5 Architectural and Microarchitectural Design

DT6 Network on Chip and Communication-Centric Design

DT7 Low-power Energy-efficient and Thermal Aware Design

DT8 Context-Aware Computing

DT9 Reconfigurable Systems

DT10 Logical and Physical Analysis

DT11 Designing Emerging Technologies for Future Computing

DT12 Emerging Technologies for Future MEMS

Track A: Application Design is devoted to the presentation and discussion of design experiences with a high degree of industrial relevance, real-world implementations, and applications of specific design and test methodologies. Contributions should illustrate innovative examples of design and test methodologies for aided in vector/matrix-based computations, convolution hardware architectures, software designs, emerging device technologies as well as the system design community: how the massive data centers are able to support the world electricity consumption would be just to keep internet and their servers running. By moving cognitive computation intense tasks locally on embedded edge devices, not only large-scale systems. This includes both hardware and embedded software design approaches. The Conference aims to bring together researchers and practitioners from academia and industry to present state-of-the-art results and new ideas on topics related to all aspects of research into technologies for electronic and conference and exhibition (e.g. speech recognition) working on portable mobile devices, which however perform also be allocated for EU-funded projects to show their results.

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