

FOREWORD

Dear Colleague,

We proudly present to you the Advance Programme of **DATE 2017!** 2017 is a special year for the world's favourite electronic systems design and test conference, as we celebrate its **20th edition**. This year the DATE conference will be held for the first time in Switzerland, at the SwissTech Convention Center on the EPFL campus in Lausanne, from March 27 to 31, 2017. This edition includes an international exhibition for electronic design, automation and test with special emphasis on the areas of Internet of Things (IoT), Cloud Computing, and Wearables and Smart Medical Devices, covering from system-level hardware and software implementation right down to integrated circuit design,

For the 20th successive year, DATE has prepared an exciting technical programme. Out of a total of 794 paper submissions received, a large share (42%) is coming from authors in Europe, 32% of submissions are from America, 25% from Asia, and 1% from the rest of the world. This clearly demonstrates DATE's international character, its global reach and impact.

With the help of 336 members of the Technical Program Committee who carried out 3187 reviews (about four per submission), finally 193 papers (24%) were selected for regular presentation and 92 additional ones (11.5%) for interactive presentation.

The DATE event will start on Monday with **9 in-depth technical tutorials** which will be given by leading experts in their respective fields, with topics on Design Solutions, Emerging Technologies, System Development and Verification, and Dependability.

The **plenary keynote speakers on Tuesday** are Dr. Arvind Krishna from IBM who will talk about "Design Automation in the Era of AI and IoT: Challenges and Pitfalls" and Dr. Doug Burger from Microsoft to talk about "A New Era of Hardware Microservices in the Cloud". In addition, a keynote lecture from Prof. Giovanni De Micheli (Professor at EPFL and Director of Nano-Tera.ch) will be given on Tuesday on "Distributed Systems for Health and Environmental Monitoring" within the Nano-Tera.ch initiative. On the same day, the **Executive Track** offers a series of business panels discussing hot topics. Executive speakers from companies leading the design and automation industry will address some of the complexity issues in electronics design and discuss about the advanced technology challenges and opportunities.

The main conference programme from Tuesday to Thursday includes 79 technical sessions organized in parallel tracks from the four areas

D – Design Methods and Tools

A – Application Design

T – Test and Robustness

E – Embedded Systems Software

and from several special sessions on Hot Topics, such as, emerging technologies, low power challenges and approximate computing for IoT devices, security-aware design in cyber-physical systems, new benchmarking methods and applications for emerging devices, circuits, and architectures, methodologies to design and manage exascale computing system technologies, as well as results and lessons learned from European projects. A special session is dedicated to Ralph Otten, pioneer of physical design, who prematurely died in an accident.

Two Special Days in the programme will focus on areas bringing new challenges to the system design community: **Designing Electronics for the Internet of Things Era** and **Designing Wearable and Smart Medical Devices**, each having a full programme of keynotes, panels, tutorials and technical presentations.

During the Special Day on "Electronics for the Internet of Things Era" on **Wednesday**, Dr. Keith Willett from **Merck Serono** will talk about "Internet of Everything is our Opportunity".

On **Thursday**, a **keynote** from Dr. Sani Nassif from Radyalis LLC will be given about "The Engineering to Medicine Metamorphosis" in the frame of the Special Day on "Wearable and Smart Medical Devices".

Additionally, there are numerous **Interactive Presentations** which are organized into five IP sessions.

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, best-practice reports by industry leaders on their latest design projects and selected conference special sessions. The conference is complemented by an **exhibition, running for three days** (Tuesday – Thursday), which provides a unique networking opportunity and states the perfect venue for industries to meet University Professors to foster University Programme and especially for PhD Students to meet future employees. The full list of applied exhibitors and sponsors can be found here: <http://www.date-conference.com/exhibition/exhibitors-sponsors>

On Friday, the last day of the DATE week, **7 full-day workshops** cover a large number of hot topics like IoT Design, Emerging Memories and Interconnections Technologies, Design of Future Autonomous Cars, and Engineering Multi-Scale Systems for Health, Energy and the Environment.

For further information please visit: www.date-conference.com

We wish you an exciting and memorable DATE 2017, a successful exhibition visit and an entertaining DATE 20th edition party on Wednesday evening, which will take place in the extraordinary scenario of the Olympic Museum in Lausanne, overlooking the Lake Geneva and the Swiss-French Alps.



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