



CALL FOR PAPERS

Topic A1: Power-efficient and Sustainable Computing

@ DATE 2018, Dresden, GERMANY

March 19 - 23, 2018

<https://www.date-conference.com/call-for-papers#The-Conference>

<https://www.date-conference.com/group/tpc/members/2018/A1>

DATE 2018, will take place from 19 to 23 March, 2018, at the International Congress Center in Dresden, Germany.

The conference addresses all aspects of research into technologies for electronic and embedded systems engineering. The conference has a dedicated track for **Application Design (Track A)**. This track 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.

We invite you to submit papers to this track and particularly to topic **A1 - Power-efficient and Sustainable Computing**. This topic focuses on application design experiences and real implementations of power-efficient systems or circuits with high industrial relevance or high environmental impact, especially targeting ultra-low-power, high-performance, or large-scale computing systems (such as MPSoCs, mobile systems, massively parallel computers, 2D/3D multi-/many-core systems, high-performance computing clusters, data centers, and cloud systems). New highlights of this year are emerging topics in power-efficient computing, such as machine learning based approaches for power and energy management, as well as emerging neuromorphic architectures for highly energy efficient computing systems.

Main themes of interest (but not limited to) of A1 topic:

- Emerging trends in energy-efficiency, like neuromorphic architectures and approximate computing
- Emerging communication or computing systems (e.g., power-efficient machine learning accelerators)
- Software architectures for energy-efficient computing

- Virtualization
- Energy-efficient memory
- Low-power processors
- Heterogeneous computing
- Resource management techniques
- Innovative data-center management strategies
- SW/OS-level implementations in real systems and data centers
- Energy-efficient big data management
- Data centers powered by renewable energy sources and data centers in smart grids.

Topic Chair: Muhammad Shafique, Technische Universität Wien, AT

Topic Co-Chair: Baris Aksanli, San Diego State University, US

Topic Members:

Luca Benini, Università di Bologna, IT

Hai (Helen) Li, Duke University, US

Umit Ogras, Arizona State University, US

Alexandre Valentian, CEA-Leti, FR

Please note:

SUBMISSION DEADLINE: Sunday, 10 September, 2017.

All papers have to be submitted electronically via the conference web page (see www.date-conference.com/submission-instructions).