Call for Papers and Announcement

ACSD 2019
19th INTERNATIONAL CONFERENCE ON APPLICATION OF CONCURRENCY TO SYSTEM DESIGN

Aachen, Germany, June 24-28, 2019

Additional information about the conference will be published via
http://www.petrinets2019.de/acsd-2019/
The conference will be co-located with the 40th International Conference on Applications and Theory of Petri Nets and Concurrency (**Petri Nets 2019**).

Important dates (extended):

Abstract submission	January 25, 2019 (*)
Submission of Papers	February 1, 2019 (*)
Notification	March 8, 2019
Final Version Due	March 22, 2019 (*)
Conference	June 23-28, 2019

(*) The deadline is the end of day Anywhere on Earth (AoE)

The **19th international ACSD conference** will be organized by the **Process and Data Science (PADS) group** at **RWTH Aachen University**, **Aachen**, **Germany**. The conference will take place in the conference area of the **Tivoli football stadium,** close to the city center of Aachen. The language of the conference is English. The conference proceedings will be submitted for inclusion to **IEEE Xplore**.

Conference scope:

The conference aims at cross-fertilizing both theoretical and applied research about formal approaches (in a broad sense) to designing computer systems that exhibit concurrent behavior. In particular, the following topics are of interest:

- Formal models of computation and concurrency for synchronous and asynchronous systems and problems, like data-flow models, communicating automata, Petri nets, process algebras, graph rewriting systems, state charts, MSCs, modal and temporal logics

- Design principles for concurrent systems, in particular hardware/software co-design, platform-based design, component-based design, modular synthesis, distributed simulation and control, refinement techniques, hardware/software abstractions, cross-layer optimization

- Algorithms and tools for concurrent systems, ranging from programming languages to algorithmic methods, for system analysis and construction, including model checking, verification, and static analysis techniques as well as synthesis procedures

- High-performance computer architectures like many-core processors, on-chip-networks, graphics processing units, instruction-level parallelism, dataflow architectures, cache coherency, memory systems, up to ad-hoc, mobile, and wireless networks

- Resource management in implementations including task and communication scheduling, network-, memory-, and power-management, energy/power distribution, fault-tolerance, quality of service, scalability, load balancing, power proportionality

- Real-time aspects, incl. hard real-time requirements, security- and safety-critical issues, functional and timing verification

- Cyber-physical systems, hybrid systems, networked systems, and networks in biological systems

- Case studies of general interest, from industrial applications to consumer electronics and multimedia, automotive systems, (bio-)medical applications, neuromorphic applications, internet (of things) and grid computing, to gaming applications.

Paper Submission:

ACSD seeks papers describing original work which has not been previously published and is not under review for publication elsewhere. All files must be prepared using the latest **IEEE Computer Society conference proceedings** guidelines (8.5" × 11" two-column format). The page limit for regular papers is **10 pages**. **Accepted papers** will be included in the conference proceedings.

At least one author of each accepted contribution is expected to present the paper at the conference, and will be required to sign the copyright release forms. All papers have to be submitted via EasyChair: https://easychair.org/conferences/?conf=acsd2019.

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Aachen

Aachen is a historic city in North Rhine-Westphalia, Germany, at the point where Germany borders on Belgium and the Netherlands. Historically this spa-town was a prominent city, the place where the German Kings were crowned, and the residence of Charlemagne who still lies buried in the impressive cathedral he himself had built. The city has many historical sites that remind of those days, including medieval buildings, city gates, and beautiful fountains. Aachen is Germany's westernmost city. It lies near the borders with Belgium and the Netherlands and is nestled between the large national parks of the Eifel and the Ardennes. The city has a population of 260,000, which includes about 50,000 students and more than 4,000 academic staff from across the world. Its lively student community lends the city just as much character as its history. Aachen is famous for its Printen gingerbread, its hot springs, its Mardi Gras carnival and one of the world's largest equestrian tournaments. The historic city center and a wealth of bars, cafés, and restaurants, combined with the nearby nature parks, such as the Eifel, make Aachen a city where everyone feels at home. The venue of the conference, the Tivoli football stadium, is located on the border of the city center. This beautiful venue will provide a unique atmosphere with great views and excellent conference facilities.