

# ACSD 2017 CALL FOR PAPERS AND ANNOUNCEMENT

## 17th International Conference on Application of Concurrency to System Design (ACSD 2017)

Zaragoza, Spain, June 28-30, 2017

<http://pn2017.unizar.es>

### **\*IMPORTANT DATES\* - Updated with Deadline Extensions**

**submission deadline (abstracts):** ~~January 13, 2017~~ **Extended until January 27**  
**submission deadline (papers):** ~~January 20, 2017~~ **Extended until February 3**  
notification of acceptance: March 17, 2017  
camera-ready submission deadline: April 15, 2017  
conference: June 28-30, 2017

### **\*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 some kind of concurrent behaviour. In particular, the following topics are of interest:

- \* Formal models of computation and concurrency for the above systems and problems, like data-flow models, communicating automata, Petri nets, process algebras, graph rewriting systems, state charts, MSCs, modal and temporal logics
- \* Compositional design principles like modular synthesis, distributed simulation and implementation, distributed control, adaptivity, supervisory control
- \* 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
- \* Synchronous and asynchronous systems on all design levels: polychronous systems, endochronous systems, globally asynchronous locally synchronous systems
- \* Cyber-physical systems, hybrid systems, networked systems, and networks in biological systems



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- \* High-performance computer architectures like many-core processors, networks on chip, graphics processing units, instruction-level parallelism, dataflow architectures, up to ad-hoc, mobile, and wireless networks
- \* Memory consistency models for multiprocessor and multicore architectures, replicated data, including software and hardware memory models, DRAM scheduling, cache coherency, memory-aware algorithms
- \* Real-time aspects, including hard real-time requirements, security and safety-critical issues, functional and timing verification □ \* Implementation aspects like resource management, including task and communication scheduling, network-, memory-, and power-management, energy/power distribution, fault-tolerance, quality of service, scalability, load balancing, power proportionality
- \* Design principles for concurrent systems, in particular hardware/software co-design, platform-based design, component-based design, energy-aware design, refinement techniques, hardware/software abstractions, cross-layer optimization
- \* Business process modelling, workflow execution systems, process (de-)composition, inter-organizational and heterogeneous workflow systems, systems for computer-supported collaborative work, web services
- \* 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" x 11" two-column format). The page limit for regular papers is 10 pages.

In addition to regular submissions, there will be a tools section. Tools will be presented at the conference in an interactive session. Related papers describe a tool, its functionality and interfaces as well as the underlying algorithms and implementation aspects. These tool papers are limited to 6 pages.

Conference proceedings will be submitted for inclusion to IEEE Xplore. Accepted regular and tool papers will be included in the conference proceedings. At least one authors of each accepted contribution is expected to present the paper or tool at the conference, and will be required to sign the copyright release forms.

Several papers will be considered for publication in extended and revised form in a special issue of a journal. All papers have to be submitted via EasyChair:  
<https://easychair.org/conferences/?conf=acsd2017>

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# Zaragoza

Zaragoza is a warm, lively and historical city, capital of the Aragón Region, in NE Spain, strategically located between Madrid, Barcelona, Bilbao, Valencia and Toulouse. The city was founded under Roman Emperor Caesar Augustus around 14 BC and offers a host of historical sights covering its Roman, Islamic, and Christian epochs. Nowadays it is the fifth city in Spain with over 700,000 inhabitants. The city welcomes visitors with its rich culture, shopping, eating, and sightseeing.

Zaragoza hosted Expo 2008 in the summer of 2008, a world's fair on water and sustainable development. It was also a candidate for the European Capital of Culture in 2012. The city is famous for its folklore, local gastronomy, and landmarks such as the Basílica del Pilar, La Seo Cathedral and the Aljafería Palace. Together with La Seo and the Aljafería, several other buildings form part of the Mudéjar Architecture of Aragon, which is a UNESCO World Heritage Site. The Fiestas del Pilar are among the most celebrated festivals in Spain.

Despite a decline in the outlying rural economy, Zaragoza has continued to grow. During the second half of the 20th century, its population boomed as a number of factories opened in the region.

## Zaragoza University



Although founded in 1542, the University of Zaragoza (with its 35,000 students in its 22 faculties spread among the different campuses in the provinces of Zaragoza, Huesca and Teruel) has not lost the beat of the times. Zaragoza University is the main centre of technological innovation in the Ebro Valley and enjoys a great prestige among the group of Spanish, European and International universities it has relations with.

Not only does it enjoy high prestige in Spanish as a Foreign Language, but also in fields as interesting to international students as Spanish Literature, Geography, Archaeology, Cinema,

History, Biocomputation and Physics of Complex Systems (BIFI Research Group), Aragón Institute for Engineering Research (I3A), Homogeneous Catalysis Research Institute (IUCH) and Nanotechnologies among many others. Notable member of the University was Santiago Ramón y Cajal, awarded the Nobel Prize in Physiology or Medicine in 1906 and is widely recognized as the father of modern neuroscience.

## **School of Engineering and Architecture – Aragón Institute of Engineering Research (I3A)**

The School of Engineering and Architecture, located in the Campus Río Ebro in Zaragoza, enjoys high prestige for its training of engineering professionals, their degrees are widely recognised and highly valued in the national and international labour market, and the level of graduate employment is impressive. The School of Engineering and Architecture has been the result of the merge of two well-known and well reputed schools of engineering, the “Centro Politécnico Superior” and the “Escuela Universitaria de Ingeniería Técnica Industrial”.

In the academic year 2010-11, the university started the Bologna convergence process, offering 9 official Bachelor’s degrees and 8 Master’s degrees, fully adapted to the new structure. This offer comprises 6 degrees in the area of Industrial Engineering, 2 in the area of Information and Communication Technologies (ICT) and a degree in Architecture.

The I3A is a university research institute established by the Zaragoza University more than 10 years ago and located in the Campus Río Ebro in Zaragoza. Since established, the I3A has grown both nationally and internationally, consolidated a shared vision among scientists and technical experts, and gained recognition as a reference point in many fields of engineering research. Its four strategic divisions, Biomedical Engineering, Information and Communication Technologies, Processes and Recycling, and Industrial Technologies, work for a common objective, which is to generate knowledge and transfer this knowledge to the social and business environment.