

ARCS 2016

Heterogeneity in Architectures and Systems – From Embedded to HPC

Call for Papers

The ARCS series of conferences has a long tradition reporting top notch results in computer architecture and operating systems research. The focus of the 2016 conference will be on **Heterogeneity in Architectures and Systems – From Embedded to HPC**. Like the previous conferences in this series, ARCS 2016 intends to be an important forum for computer architecture research. In 2016, ARCS will be organized by the Department of Computer Science at the Friedrich-Alexander University Erlangen-Nürnberg (FAU). ARCS was founded in 1970 by the German and European computer pioneer Prof. Wolfgang Händler who founded also the Computer Science Department at FAU in 1966. In 2016, the CS Department celebrates its 50th anniversary and it is a privilege to have ARCS back to its roots.

The ARCS 2016 proceedings will be published in the Springer Lecture Notes on Computer Science (LNCS) series. After the conference, it is planned that the authors of selected papers will be invited to submit an extended version of their contribution for publication in a special issue of Elsevier's Journal of Systems Architecture (JSA). In addition, the best paper and the best presentation will be awarded during the conference.



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Important Dates

Paper submission deadline:	Oct. 26, 2015
Workshop & tutorial proposals:	Nov. 30, 2015
Notification of acceptance:	Dec. 21, 2015
Camera-ready papers:	Jan. 11, 2016

Authors are invited to submit original, unpublished research papers on one of the following topics:

- Architectures and design methods/tools for robust, fault-tolerant, real-time embedded systems
- Generic and application-specific accelerators in heterogeneous architectures, heterogeneous image systems
- Distributed computing architectures, high-performance computing (HPC), and cloud computing
- Cyber-physical systems, internet of things (IoT), Industrie 4.0, and their applications
- Multi-/manycore architectures, memory systems, and interconnection networks
- Programming models, runtime systems, middleware, verification, and tool support for manycore systems
- Operating systems including but not limited to scheduling, memory management, power management, and RTOS
- Adaptive system architectures such as reconfigurable systems in hardware and software
- Organic and autonomic computing including both theoretical and practical results on Self-X techniques
- Energy awareness and green computing
- System aspects of ubiquitous and pervasive computing such as sensor nodes, novel input/output devices, novel computing platforms, architecture modeling, and middleware
- Architectures for robotics and automation systems
- Performance modeling and engineering
- Approximate computing

Submissions must be done through the link provided at the conference website. Papers have to be submitted in PDF format. They must be formatted according to Springer LNCS style (see: <http://www.springer.de/comp/lncs/authors.html>) and must not exceed 12 pages.

Workshop and Tutorial Proposals within the technical scope of the conference are solicited. Submissions should be sent by email directly to the Workshop and Tutorial Chair.

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