

## ARCS 2019

**32<sup>nd</sup> GI/ITG INTERNATIONAL CONFERENCE ON ARCHITECTURE OF COMPUTING SYSTEMS  
THIS YEAR'S FOCUS: ARCHITECTURES FOR COMPLEX REAL-TIME SYSTEMS LIKE  
AUTONOMOUS CONTROL SYSTEMS, AS WELL AS SAFETY AND SECURITY CRITICAL SYSTEMS**

Copenhagen, Denmark  
Mai 20 - 23, 2019  
<http://arcs2019.itec.kit.edu/>

### CALL FOR PAPERS

The ARCS conferences series has over 30 years of tradition reporting leading edge research in computer architecture and operating systems. The focus of the 2019 conference will be on architectures for complex real-time systems like autonomous control systems, as well as safety and security critical systems. This includes upcoming architectures and technologies, exploitable architectural features, languages, and tooling.

The proceedings of ARCS 2019 will be published in the Springer Lecture Notes on Computer Science (LNCS) series. A best paper and best presentation award will be presented at the conference.

**Paper submission:** Authors are invited to submit original, unpublished research papers on one or more of the following topics:

- Hardware Architectures
  - System-on-chip
  - Distributed systems
  - High performance systems
  - Heterogeneous multi- and many-core architectures
  - Architectures for real-time and mixed-criticality systems
  - Coarse- and fine-grained reconfigurable architectures
  - Flexible I/O support
  - Advanced computing architectures
- Programming Models and Runtime Environments
  - Programming models for many-core and/or heterogeneous computing platforms
  - Operating systems, hypervisors and middleware for homogeneous and heterogeneous multi-/many-core computing platforms
  - System management including but not limited to scheduling, memory management, power/thermal management, and RTOS
- Cross-sectional Topics
  - Adaptive systems (energy aware, self-x technologies)
  - Pervasive systems
  - Approximate Computing
  - Autonomous systems
  - Support for safety and security

**Submission guidelines:** Submissions should be done through the link that is provided on the conference website <https://easychair.org/conferences/?conf=arcs2019>. Papers must be submitted in PDF format.

They should be formatted according to Springer LNCS style (see: <https://www.springer.com/gp/computer-science/lncs/conference-proceedings-guidelines>) and must not exceed 12 pages, including references and figures.

**Workshop and Tutorial Proposals:** Proposals for workshops and tutorials within the technical scope of the conference are solicited. Submissions should be done through email directly to the corresponding chair: Carsten Trinitis, (Carsten.Trinitis@tum.de)

**Important Dates:**

Paper submission deadline: December 10, 2018  
Workshop and tutorial proposals: TBA  
Notification of acceptance: February 14, 2019  
Camera-ready papers: March 01, 2019

**Organizing Committee:**

**General Chair**

Martin Schoeberl, Technical University of Denmark, Lyngby, Denmark  
Christian Hochberger, TU Darmstadt, Darmstadt, Germany

**Program Chairs**

Sascha Uhrig, Airbus, Ottobrunn, Germany  
Juergen Brehm, University of Hannover, Germany

**Workshop and Tutorial Chair**

Carsten Trinitis, TU Munich, Germany

**Publication Chair**

Thilo Pionteck, Magdeburg University, Germany

**Program Committee (to be completed)**

Hamid Amiri, ENIT  
Mladen Berekovic, C3E, TU Braunschweig, Germany  
Jürgen Brehm, Leibniz University Hannover, Germany  
Uwe Brinkschulte, University of Frankfurt/Main, Germany  
Rainer Buchty, TU Braunschweig, Germany  
João Cardoso, FEUP/University of Porto, Portugal  
Laura Carrington, San Diego Supercomputing Center, USA  
Martin Daněk, daiteq, Czech Republic  
Nikitas Dimopoulos, University of Victoria, Canada  
Ahmed El-Mahdy, Egypt-Japan University of Science and Technology (E-JUST)  
Dietmar Fey, University of Erlangen-Nuremberg, Germany  
William Fornaciari, Politecnico di Milano, Italy  
Roberto Giorgi, University of Siena, Italy  
Daniel Gracia-Pérez, Thales Research & Technology, France  
Jan Haase, Universität Lübeck, Germany  
Jörg Hähner, Augsburg University, Germany  
Heiko Hamann, Universität Lübeck, Germany  
Andreas Herkersdorf, TU Munich, Germany  
Christian Hochberger, TU Darmstadt, Germany  
Gert Jervan, Tallinn University of Technology, Estland

Ben Juurlink, Technical University of Berlin, Germany  
Wolfgang Karl, Karlsruhe Institute of Technology, Germany  
Jörg Keller, Fernuniversität Hagen, Germany  
Andreas Koch, TU Darmstadt, Germany  
Dirk Koch, University of Manchester, UK  
Hana Kubátová, FIT CTU, Prague, Czech Republic  
Erik Maehle, Universität zu Lübeck, Germany  
Alex Orailoglu, UC San Diego, USA  
Luis Miguel Pinho, CISTER, ISEP, Portugal  
Thilo Pionteck, Magdeburg University, Germany  
Pascal Sainrat, IRIT - Université de Toulouse, France  
Luca Santinelli, Onera, France  
Toshinori Sato, Fukuoka University, Japan  
Martin Schoeberl, University of Denmark, Denmark  
Wolfgang Schröder-Preikschat, FAU, Germany  
Martin Schulz, TU Munich, Germany  
Muhammad Shafique, Vienna University of Technology, Austria  
Leonel Sousa, University of Lisbon, Portugal  
Benno Stabernack, Fraunhofer HHI, Germany  
Walter Stechele, TU Munich, Germany  
Jürgen Teich, University of Erlangen-Nuremberg, Germany  
Sven Tomforde, University of Kassel, Germany  
Eduardo Tovar, ISEP, Portugal  
Carsten Trinitis, TU Munich, Germany  
Nicolas Tsiftes, SICS, Sweden  
Sascha Uhrig, Airbus, Germany  
Theo Ungerer, University of Augsburg, Germany  
Hans Vandierendonck, Queen's University Belfast, Great Britain  
Stephane Vialle, SUPELEC, France  
Lucian Vintan, »Lucian Blaga« University of Sibiu, Romania  
Klaus Waldschmidt, University of Frankfurt, Germany  
Dominik Wist, BIOTRONIC Berlin, Germany  
Stephan Wong, Delft University of Technology, The Netherlands  
Sungjoo Yoo, Seoul National University, Korea