



WASA 2018

<http://www.win.tue.nl/wasa2018>

May 1st 2018, Seattle, United States

Co-located with ICSA

The Fourth International Workshop on Automotive System/Software Architectures

Call for papers

With the advent of software and electronics, automotive companies are enabling innovation to improve safety, security, driver experience, and driving automation. Moreover, the complexity and size of software keep growing because of future innovations, such as adaptive cruise control, lane keeping, self-learning algorithms, etc, which all leads to the ultimate goal of autonomous driving. Consequently, increasing use of software over the years, introduced the paradigm shift by requiring automotive companies to develop their systems using architecture and model-based techniques. Although model-based techniques using e.g. MATLAB/Simulink and Stateflow are being accepted in the automotive industry as standard languages and tooling for developing automotive control software, the techniques for system and software architecture are still far from being widely accepted. This is excluding the AUTOSAR standard, which defines the language for designing and configuring automotive software architectures and identifies major architectural components of automotive systems.

The goal of this workshop is to address issues related to the appropriate automotive system/software architecture and engineering techniques, which can be accepted by the automotive industry. Therefore, to bring together researchers and practitioners in the area of automotive system/software architecture and engineering, the international Workshop on Automotive Software Architectures (WASA) is being organized with the International Conference on Software Architecture (ICSA), the premier gathering of software architecture and component-based software engineering practitioners and researchers.

Papers can be submitted in the following categories:

- **Full papers (8 pages)** presenting novel research ideas, empirical studies, successful industrial applications, or important perspectives.
- **Industrial papers (4 pages)** sharing industrial experience, challenges, research or technical problems, case studies.
- **Position or future trend papers (4 pages)** raising new ideas, challenges, ongoing research or early research results and future trends.

All papers must conform, at time of submission, to the [IEEE Formatting Guidelines](#). Accepted papers will be submitted for inclusion to IEEE Xplore. Submit your paper electronically via [EasyChair](#). An extended version of the selected best papers will be published in a special section of the [Journal of Automotive Software Engineering \(JASE\)](#).

Topics of interest include, but are not limited to:

- Automotive system/software architecture (Architecture description languages, experiences of applying AUTOSAR standard, integration of software and hardware components, communication infrastructures etc.)
- Automotive architecture design patterns
- Automotive software quality, safety, security
- Automotive component-based software engineering
- Model-based automotive software development and systems engineering
- Verification and validation techniques in the automotive domain
- Architecture and design of connected transport systems (autonomous vehicles and smart road infrastructure)
- Automotive software engineering and reverse engineering techniques
- Software engineering techniques for autonomous driving and cooperative vehicles (processing big data generated from all the sensors in the autonomous driving cars, etc.)
- Software engineering techniques for hybrid and fully electric vehicles
- Software engineering techniques for safety assurance and assessment
- Compliance management of standards or regulations
- Novel software engineering approaches in automotive software engineering (e.g. continuous integration, software ecosystems)

Important dates

Papers due: 8th of March 2018
Papers notification: 29th of March 2018
Camera-ready due: 12th of April 2018

Program Chairs:

[Darko Durisic](#) (Volvo Car Corporation, Sweden)
[Yaping Luo](#) (Altran Netherlands B.V, The Netherlands)
[Miroslaw Staron](#) (University of Gothenburg, Sweden)
[Yanja Daisuren](#) (Eindhoven University of Technology)