



14-18 SEPTEMBER 2020

L'AQUILA | ITALY

ECSCA 2020

WASA 2020

Call for Papers

6th International Workshop on **Automotive System/Software Architecture** In conjunction with 14th European Conference on Software Architecture (ECSCA 2020)

With the advent of software and electronics, automotive companies are enabling innovation to improve safety, security, driver experience, and driving automation. 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 the system.

Topics of interest include, but are not limited to:

- Automotive system/software architecture (architecture description languages, experiences of applying AUTOSAR standard, integration of SW and HW 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

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 System/Software Architectures (WASA) is being organized with the European Conference on Software Architecture (ECSCA), the premier European software architecture conference.

- 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)
- AI technologies in automotive software and their influence on architecture
- Challenges and solutions for including ML in automotive software

September 14-18 2020, L'Aquila, Italy

Important Dates (AoE):

- Full paper submission:
24 June 2020
- Notification of acceptance:
13 July 2020
- Camera-ready submission:
20 July 2020

Workshop Organizers:

- Darko Durisic (Volvo Car Corporation, Sweden)
- Stefan Kugele (TUM, Germany)
- Yanja Dajsuren (TU/e, The Netherlands)
- Mirosław Staron (Chalmers | University of Gothenburg, Sweden)

Program Committee:

- Harald Altinger (Audi, Germany)
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- Mark Van Den Brand (Eindhoven University of Technology, The Netherlands)
- Andreas Vogelsang (Technische Universität Berlin, Germany)
- Ji Wu (Beihang University, China)



<https://www.win.tue.nl/wasa2020>