Design, Automation and Test in Europe Conference

Autonomous Systems Design
Automated Vehicles and Beyond

a two-day DATE initiative
12-13 March 2020, Grenoble, France

The DATE initiative on Autonomous Systems Design (ASD) is a two-day special event at DATE, the leading European conference on embedded hardware and software design. It focuses on recent trends and emerging challenges in the field of autonomous systems. Such systems are becoming more and more integral parts of many Internet-of-Things (IoT) and Cyber-Physical Systems (CPS) applications. Automated driving constitutes today one of the best examples of this trend, in addition to other application domains such as avionics and robotics.

ASD is organized as a Thursday *Initiative* day and Friday *Workshop* day to constitute a two-day continuous program covering different industrial and academic methods and methodologies in the design, verification and validation of autonomous systems. The main areas of interest include but are not limited to the following,

- embedded and cyber-physical systems platforms that implement and execute the autonomous system functions including aspects related to their architectures, hardware, software and communication,
- the design of autonomous systems including processes, modeling, optimization, verification, validation, and test,
- all aspects of dependability in autonomous systems design including, but not limited to, functional safety concepts, fail-operational systems design, functional safety for applications with machine learning, safe and secure adaptions and updates, autonomous systems security,
- case studies of autonomous systems design using innovative architectures, methods and tools.

Thursday Initiative Day The initiative day on Thursday consists of regular sessions discussing novel technical contributions, hot topics and emerging challenges in the field of autonomous systems. Submitted papers will undergo a peer review process and accepted papers will appear in the DATE conference proceedings.

chair: Selma Saidi, Hamburg University of Technology, DE
co-chair: Marko Bertogna, University of Modena, IT

Friday Workshop Day The workshop day consists of interactive and working sessions involving methodologies, application kernels and models, software tools and industrial challenges.

chair: Sebastian Steinhorst, Technical University of Munich, DE
co-chair: Jyotirmoy Deshmukh, University of Southern California, USA

Organizing Committee

Rolf Ernst, Technical University of Braunschweig, DE
Selma Saidi, Hamburg University of Technology, DE
Dirk Ziegenbein, Robert Bosch GmbH, DE