

ARTS22 Breakout Session Title:

254-Safety Assurance of Automated Driving

Session Contact/Organizers:

- Adrian Zlocki, Dr., Director of Automated Driving, fka GmbH, Aachen, Germany
- Lutz Eckstein, Univ.-Prof. Dr.-Ing., Director and Chair, Institute of Automotive Engineering (ika), RWTH Aachen University, Germany

TRB Sponsor/Partner Committees (if any):

TRB Committee on Vehicle-Highway Automation (ACP30)

Session Description

In spite of many years of research, Safety Assurance of Automated Vehicles is still a field of action, discussion and harmonization in order to safely and efficiently introduce automated driving to public roads. The session will focus on progress and international exchange based on ongoing activities around the globe. It brings together relevant international experts on safety assurance and provides a platform to formulate the most urgent open questions and a research agenda.

The session builds on the international safety assurance discussions of the past years. The focus of this year is on methodology and safety assurance frameworks.

Goals/Objectives/Outputs**Goals:**

- Provide the state of the art on current activities and initiatives
- Present, exchange and combine methodologies for safety assurance
- Discuss comparisons and communication of safety assurance methodology for automated vehicles
- Foster International harmonization of approaches
- Identify further research and standardization needs

Outputs:

- Identification of international progress being made in safety assurance
- Identification of future needs (efforts, resources, etc.) in developing/using safety assurance methods
- Sharing of best practices on safety assurance and lessons learned
- Fostering interaction between participants and speakers from industry, universities and governmental bodies
- Contribution to harmonization on international level

Agenda

Tuesday, July 19, 1:30 PM – 5:00 PM PDT

- 1:30 PM – 1:40 PM: Introduction by Lutz Eckstein, Adrian Zlocki, Jane Lappin and Steve Shladover
- 1:40 PM – 2:40 PM: Safety Assurance Activity Status Update, moderated by Adrian Zlocki
(10 min. presentation + 2 min Q&A each)
 - L3Pilot / Hi-Drive – Aria Etemad (VW)
 - V&V Methods / SetLevel – Hening Mosebach (DLR)
 - SAKURA – Satoshi Taniguchi (Toyota)
 - Status update from NHTSA – Stephen A. Ridella (NHTSA)
 - DIVE – Hideo Inoue (Kanagawa Institute of Technology)
- 2:40 PM – 3:20 PM: Safety Assurance Methodology, moderated by Jane Lappin (10 min. presentation + 2 min Q&A each)
 - Scenario description methodology for motorways – Hendrik Weber (ika), Adrian Zlocki (fka), Maximilian Grabowski (BASt)
 - Safety assurance seen by the policy maker/regulator in Europe: the case of ALKS and the lessons learned when testing ADAS – Fabrizio Minarini (EC)
 - AVSC latest best practices- Amy Chu (AVSC)
- 03:20 PM – 4:20 PM: Safety Assurance Frameworks, moderated by Steve Shladover (10 min. presentation + 2 min Q&A each)
 - Nat Beuse (Aurora)
 - John Maddox (Lyft)
 - Amitai Bin-Nun (Motional)
 - Kris Kusano (Waymo)
 - Kevin Gay (Uber)
- 4:20 PM – 4:55 PM: Discussion
(all) Moderation by Lutz Eckstein
- 4:55 PM – 5:00 PM: Wrap up and Outlook by Jane Lappin, Steve Shladover, Adrian Zlocki and Lutz Eckstein

Related Sessions:

Safety Metrics Moving from Theory to Practice, Standards for ADS ODD/ Operating Envelope