VMAD Technical Workshop on In-Service Safety Performance of Automated Vehicles

Aims and Objectives

Exchanges on in-service safety performance of automated vehicles evidenced the need for an extensive discussion on different perspectives, approaches and aims.

Therefore, this workshop aims at facilitating such exchange, providing an opportunity to the experts involved to better understand the current status and technical progress made.

Background Information

The VMAD IWG developed the New Assessment/Test Method for automated driving (NATM) with the purpose of providing a framework for assessing an ADS and its ability to demonstrate safe behaviour when operating in the real world. The common understanding reached by VMAD experts is that the safety validation before market introduction will ensure that the Automated Driving System (ADS) is safe enough to access the market and start a process of continual improvement. The actual level of safety after market introduction will be evaluated once a sufficient number of vehicles is in the field and once they are subjected to a sufficient range of traffic and environmental conditions. For this reason, VMAD established In-Service Monitoring and Reporting (ISMR) as a fundamental pillar of the NATM approach: the operational experience feedback loop (fleet monitoring) will allow confirming the safety by design concept and the validation carried out by the manufacturer before market introduction. Moreover, ISMR will be instrumental to the identification of new safety-relevant scenarios and of lessons learned, that will be shared with stakeholders in the form of safety recommendations.

Meanwhile, other working groups have been addressing the ADS in-use safety performance from different perspectives. The FRAV IWG has been working on the definition of safety requirements for autonomous/automated vehicles, and exchanged recommendations with the EDR/DSSAD IWG. The latter was tasked by GRVA to define the categories of data recorded during operation, the events triggering recording, as well as technical specifications in terms of performances of the Event Data Recorder (EDR) - for conventional vehicles and automated/autonomous vehicles - and for the Data Storage System for Automated Driving (DSSAD) - for automated/autonomous vehicles.

Finally, the ITU engages in pre-standardization activities in the general context of services and applications enabled by AI systems in autonomous and assisted driving. Its activities focus on a survey called "the Molly problem", calling for automated vehicles being able to report on collision and near miss.

Participants

The workshop is organized by the IWG on VMAD and is opened to the GRVA participants that may include experts from the IWGs on VMAD, FRAV, EDR/DSSAD and ITU.

Agenda Overview and concept

The event will take place over two days, with two sessions of two hours each. The Workshop will be opened with welcome speeches by VMAD-Co-Chairs and the first session will be dedicated to presentations from FRAV and EDR/DSSAD Groups, and to time for questions and answers. Likewise, the second session on the following day will be dedicated to presentations from ITU and VMAD-SG3, with time dedicated to for questions and answers, and closing remarks.

Contacts

Technical Sessions M. Cristina Galassi (maria-cristina.galassi@ec.europa.eu)

Espedito Rusciano (Erusciano@rdw.nl)

Riccardo Donà (Riccardo.Dona@ext.ec.europa.eu)

Organization Tina Ruffino (<u>Tina.Ruffino@sae.org</u>)

Agenda

Day 1 – 17/03/2022

Starting at 7:30 (Eastern DT), 12:30 (Central European Time), 19:30 (China ST), 20:30 (Korea ST, Japan ST)

Duration: 2 hours

Venue: https://sae.webex.com/sae/j.php?MTID=me03d24e9c0726ae79ca339b1a5a5f63c

Meeting number: 2554 753 5101

Meeting password: March172022 (62724172 from video systems)

12:30 – 12:45 CET Welcome and introduction to the Workshop

GALSSI M. Cristina

Opening Address by VMAD Co-Chairs

ONODA Takao, SOW Ibrahima, STRIEKWOLD Peter

12:45 – 13:15 CET Presentation FRAV

WONDIMNEH Ezana

13:15 – 13:30 CET Q&A

13:30 – 14:00 CET Presentation VMAD SG3

RUSCIANO Espedito

14:00 – 14:15 CET Q&A

14:15 – 14:30 CET, Closing remarks & AOB

GALSSI M. Cristina

Day 2 - 24/03/2022

Starting at 7:00 (Eastern DT), 12:00 (Central European Time), 19:00 (China ST), 20:00 (Korea ST, Japan ST)

Duration: 2 hours

Venue: https://sae.webex.com/sae/j.php?MTID=mcbe285054a08e4aaa003280dc94b315c

Meeting number: 2557 222 7931

Meeting password: March242022 (62724242 from video systems)

12:00-12:15 CET Welcome and wrap-up from Day 1

GALSSI M. Cristina

12:15 – 12:45 CET Presentation ITU

BALCOMBE Bryn

12:45 – 13:00 CET Q&A

13:00 – 13:30 CET Presentation EDR/DSSAD

DOHERTY Jane

14:00 – 14:15 CET Q&A

14:15 – 14:30 CET, Closing remarks & AOB

GALSSI M. Cristina