www.nist.gov/news-events/events/2019/06/consensus-safety-measurement-methodologies-ads-equipped-vehicles

National Institute of Standards and Technology
U.S. Department of Commerce

Consensus Safety Measurement Methodologies for ADS-Equipped Vehicles

workshop

June 25, 2019 to June 26, 2019
100 Bureau Drive Gaithersburg, Maryland (Green Auditorium)
Register (https://appam.certain.com/profile/form/index.cfm?PKformID=0x51377abcd)

Registration closes on June 18, 2019

No registration fee. All visitors to the NIST campus must be pre-registered. There is no onsite registration for meetings held at NIST.

Registration Contact

Pauline Truong (https://www.nist.gov/people/pauline-truong)

pauline.truong@nist.gov (https://www.nist.govmailto:pauline.truong@nist.gov)
(301) 975-3258

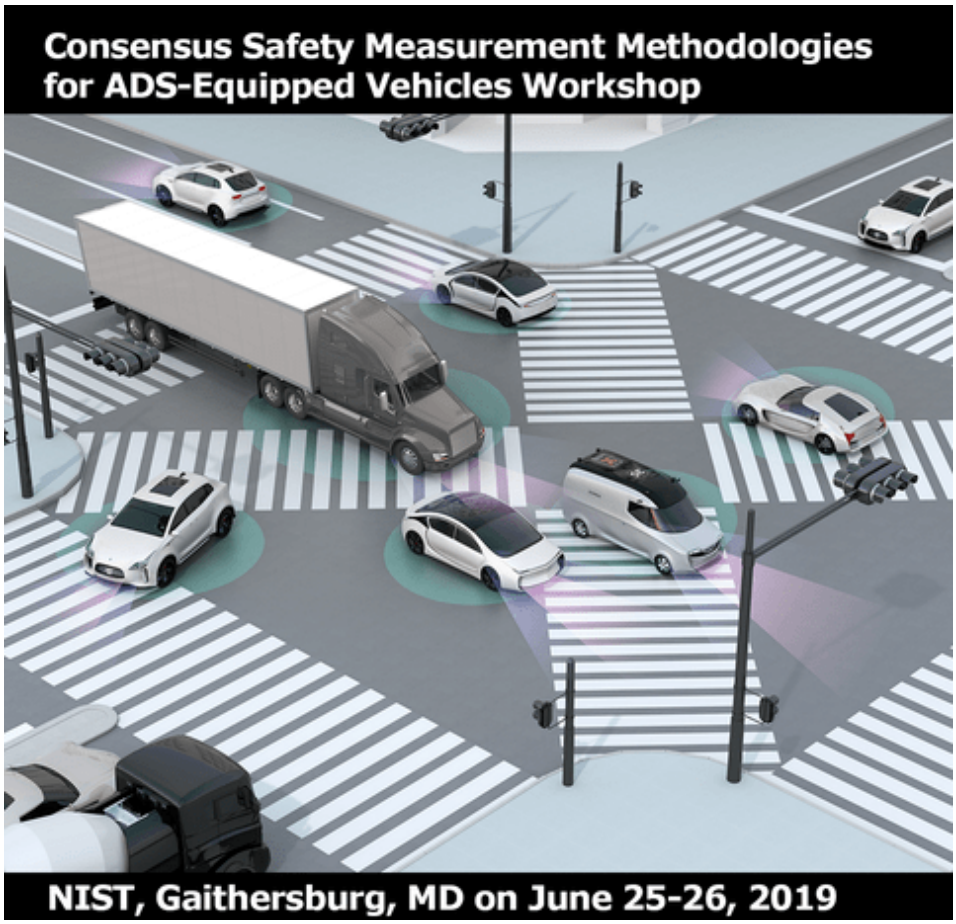
Technical Contact

David A. Wollman (https://www.nist.gov/people/david-wollman)

david.wollman@nist.gov (https://www.nist.govmailto:david.wollman@nist.gov)
(301) 975-2433

Edward Griffor (https://www.nist.gov/people/edward-griffor)

edward.griffor@nist.gov (https://www.nist.govmailto:edward.griffor@nist.gov)
(301) 975-4743



Credit: NHTSA Autonomous Vehicle at an Intersection

NIST will host a workshop on Consensus Safety Measurement Methodologies for ADS-Equipped Vehicles on June 25-26, 2019, at the NIST Gaithersburg, MD campus. The workshop will feature presentations and breakouts about current perspectives on safety for Automated Driving Systems (ADS).

The automotive industry is planning to deploy automated vehicles (AV), at least at the level of NHTSA AV Level 3 (conditional automation), in the very near term with most major manufacturers (OEMs) targeting the early 2020s. Community consensus around reliable, broadly-acceptable performance measurement methods for assessing the safety of automated vehicles can facilitate the successful achievement of these deployment goals. This workshop will explore emerging concepts and possible paths toward consensus around effective safety measurement methodologies.

Automated vehicles are cyber-physical systems (CPS) or Internet of Things (IoT) systems that can be defined as systems of interacting logical, physical, and human components engineered for function through integrated logic and physics. Performance measurement and assurance in such systems requires new evaluation strategies and approaches that accommodate the complex, hybrid nature of these systems. This workshop will examine concepts for metrics, formal models, testing

protocols, taxonomies, and other approaches for measuring AV safety.

This workshop's objectives are to identify and develop criteria that should be satisfied for any approach to automated vehicle decision-making safety, to review existing or proposed methodologies for the establishing safety requirements and safety measurement approaches, to identify gaps and key challenges, and to explore opportunities for progress, including identifying alternative methodologies that should be considered.

- Explore consensus around priorities for enabling progress on the gaps and key challenges that are identified.
- Publish a review of the identified criteria, gaps and challenges, possible methodologies to address these gaps and articulate a preferred path to developing AV safety requirements and testing.
- Explore opportunities for the workshop attendees to continue to collaborate, on the identified gaps, to progress towards consensus safety metrics across the community.

Related Information

For more information, please view our detailed overview and background (https://www.nist.gov/document/avsafetyworkshopprospectusfinalpdf) document. (PDF)

Agenda

Draft Agenda (Printable PDF)
(https://www.nist.gov/document/simplifiedagendafortheavsafetyworkshop25-26junepdf)

Tuesday, June 25, 2019
9:00 AM Welcome and Introductions: NIST, US Dept. of Transportation, Intel, Lyft, possibly others.
9:15 AM Workshop Overview and Goals: Chris Greer, NIST
Consensus measurement as innovation driver
9:45 AM The Safe Integration of Automated Driving Systems (ADS): USDOT
The role of safety in AV innovation and adoption
10:15 AM State Perspectives
10 - 15 mins each, 2-3 state representatives
10:45 AM Break
11:00 AM Development Community Perspective (Auto and Tech)
10 mins each, 5 community representatives
12:00 PM ADS Sector Perspective
10 - 15 mins each, 2-3 sector representatives

12:30 PM Standards and Testing Organizations Perspective (US and International)
10 - 15 mins each, 2-3 sector representatives
1:00 PM Lunch (on your own, NIST cafeteria)
1:50 PM Example Methodologies
15 -20 mins each, 3-4 examples
2:50 PM Break
3:00 PM Breakout Sessions
3 or more subgroups: Topics to be determined, topics may include
Assessment of the presented methodologies, and
Ideas on establishing a comprehensive, implementable methodology
4:15 PM Break to Reconvene Plenary
4:30 PM Interim Breakout Group Reports
5 mins per breakout group
4:45 PM Day 1 wrap-up, Day 2 plan, Adjourn

Wednesday, June 26, 2019
9:00 AM Day Two Opening Remarks, NIST/USDOT
9:15 AM Collaboration for Innovation
How do we collaborate on safety in ways that enable innovation and facilitate product differentiation for healthy competition?
20 mins USDOT – topic may include perspective on Voluntary Safety Self Assessment
20 mins TBD presenter – topic may include collaboration/competition perspectives from a traditional automobile developer
20 mins TBD presenter – topic may include proposal of a model for cross-industry collaboration from a system developer

10:15 AM Break
10:30 AM Reconvene Breakout Groups
Focus: Perspectives on the effective collaboration strategies
11:30 AM Lunch (on your own, NIST cafeteria)
12:30 AM Breakout Groups
Focus: The path forward – How should we proceed? How should we organize? Next steps?
1:45 PM Report outs
20 mins per breakout group
2:45 PM Next Steps (NIST and USDOT) and conclusion of workshop
3:00 PM Adjourn

Lodging

Hotel Block will be posted soon.

Security instructions

NON U.S. CITIZENS PLEASE NOTE: All foreign national visitors who do not have permanent resident status and who wish to register for the above meeting must supply additional information. Failure to provide this information prior to arrival will result, at a minimum, in significant delays in entering the facility. Authority to gather this information is derived from United States Department of Commerce Department Administrative Order (DAO) number 207-12.

*New Visitor Access Requirement: Effective July 21, 2014, Under the REAL ID Act of 2005, agencies, including NIST, can only accept a state-issued driver's license or identification card for access to federal facilities if issued by states that are REAL ID compliant or have an extension. As of Monday, January 30, 2017, Federal agencies will be prohibited from accepting driver's licenses and identification cards from the following states for accessing federal facilities: Maine, Minnesota, Missouri, Montana and Washington. For further details, please visit our Campus Access and Security page.

Acceptable Photo Identification:

For Non-US Citizens: Valid passport for photo identification

For US Permanent Residents: Permanent Resident/Green card for photo identification

Created May 01, 2019, Updated May 20, 2019