

ARTS22

TRB

TRANSPORTATION RESEARCH BOARD

The 2022 TRB Annual

Automated Road Transportation Symposium

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Teleoperation
Consortium

Teleoperation Guidelines Session Summary

Session 253 - Teleoperation for Automated Vehicle Operations

Session Topic Summary

- Increase awareness and understanding of Remote Assistance and Teleoperation for Automated Vehicle Operations;
- Gather input from the attendees on the Teleoperation Guidelines and Approach Categories that were developed (to be published as NIST special publication);
- Identify research questions and future research needs.

Outcomes & Research Needs Statements

- Wireless standards
 - These are developing well, and should provide sufficient functionality. We should recommend where different technologies can work.
- Define a data model for teleoperation
 - This is different from in-vehicle or environmental modeling
 - A consistent end-to-end data model is critical (remote operation data model)
- Ensure evolving V2X standards address (and don't preclude) higher-level data modeling
- Specify requirements for a V2X Software Connectivity Framework Standard (does not exist). For example, DDS as a good base for a V2X communications architecture. Can provide a common developer interface for DSRC and C-V2X.

Teleoperation is a critical accelerator of the coming autonomous age

- The Teleoperation Consortium is *the* industry forum for remote operation of autonomous vehicles
- Our goal is to accelerate practical autonomy by providing assistance to vehicles in challenging situations
- We are developing a comprehensive Guidelines Document to outline the problem, approaches, and standards
- Join us! Email sjm@teleoperation.org to request information on the TC or the guidance document