The National Academies of
SCiences • Engineering • Medicine

TRANSPORTATION RESEARCH BOARD

TRB Snap Search: Connected & Automated Vehicles

TRB's involvement in research on Connected & Automated Vehicles from 2016-2018

The Transportation Research Board (TRB) provides innovative, research-based solutions to improve how we move. TRB is part of the National Academies of Sciences, Engineering, and Medicine, an independent, non-profit institution that provides objective advice on scientific, engineering, and medical issues.

A resource to the nation and to the transportation community worldwide, TRB provides an extensive portfolio of services:

- Opportunities for information exchange on current transportation research and practice
- Management of cooperative research and other research programs
- Analyses of national transportation policy issues and guidance on federal and other research programs
- Publications and access to research information from around the world

TRB Research

TRID – The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation

- Click here to view search results on TRB published research on Connected & Automated Vehicles within the past year.

Specialty Websites

- Transformational Technologies

Recent Reports & Publications

- Conferences & Workshops Proceedings
  - Proceedings on the Web 19 – Automated and Connected Vehicles: Summary of the 9th University Transportation Centers Spotlight Conference

- National Cooperative Highway Research Program (NCHRP)
  - Synthesis 491 - Uses of Mobile Information Technology Devices in the Field for Design, Construction, and Asset Management
  - Legal Research Digest 69 - A Look at the Legal Environment for Driverless Vehicles
  - Web Only Document 231 - Challenges to CV and AV Applications in Truck Freight Operations
  - Brochure - Connected and Automated Vehicles: NCHRP Support for Transportation Agency Leaders

- Policy Studies

- Transportation Research Circulars
  - E-Circular 222 - Automated Vehicles Symposium 2016
  - E-Circular 219 - The U.S. Department of Transportation's Smart City Challenge and the Federal Transit Administration’s Mobility on Demand Sandbox: Advancing Multimodal Mobility and Best Practices Workshop
  - E-Circular 218 - Advancing Freeway Operations Through Strategic Research
  - E-Circular 210 - Multimobility and Sharing Economy: Shaping the Future Market Through Policy and Research
  - E-Circular 208 - Transformational Technologies in Transportation: State of the Activities

- Transportation Research Record: Journal of the Transportation Research Board
  - Volume 2649 - Use of Automated Vehicle Location Data for Route- and Segment-Level Analyses of Bus Route Reliability and Speed
  - Volume 2625 - Analysis of the Effects of Connected–Automated Vehicle Technologies on Travel Demand
  - Volume 2625 - Multiobjective Optimization Framework for Cooperative Adaptive Cruise Control Vehicles in the Automated Vehicle Platooning Environment

Updated on 11/02/2017
TRANSPORTATION RESEARCH BOARD

- Volume 2625 - Assessing Public Acceptance of Connected Vehicle Systems in a New Scheme of Usage-Based Insurance
- Volume 2621 - Safety Impacts of Queue Warning in a Connected Vehicle Environment
- Volume 2621 - Vehicle-to-Pedestrian Communication Modeling and Collision Avoiding Method in Connected Vehicle Environment
- Volume 2620 - Detector-Free Optimization of Traffic Signal Offsets with Connected Vehicle Data
- Volume 2619 - Interlinking VISSIM and ns-3 for Connected Vehicle Simulation
- Volume 2619 - Adaptive Coordination Based on Connected Vehicle Technology
- Volume 2615 - Preparing Oregon for Connected Vehicle Deployment
- Volume 2606 - Economic Effects of Automated Vehicles

Current & Upcoming Projects

- **Current Projects**
  - ACRP 03-42 - Airports and UAS
  - NCHRP 20-102(20) - Impacts of Regulations and Policies on CV and AV Technology Introduction in Transit Operations – *Publication in Progress*
  - NCHRP 20-07, Task 322 - State of Readiness of the Dedicated Short Range Communications (DSRC) Spectrum for Early deployment of Connected Vehicle Transportation Systems
  - NCHRP 20-07, Task: 376 - Transportation Agency ITS Infrastructure Decisions Considering V2I Deployment
  - NCHRP 20-102 - Impacts of Connected Vehicles and Automated Vehicles on State and Local Transportation Agencies -- Task-Order Support
  - NCHRP 20-102(01) - Policy and Planning Actions to Internalize Societal Impacts of CV and AV Systems into Market Decisions
  - NCHRP 20-102(08) - Dedicated Lanes for Priority or Exclusive Use by CVs and AVs
  - NCHRP 20-102(09) - Providing Support to the Introduction of CV/AV Impacts into Regional Transportation Planning and Modeling Tools
  - NCHRP 20-102(12) - Business Models to Facilitate Deployment of CV Infrastructure to Support AV Operations
  - NCHRP 20-113A - Support for TRB Symposium on Transformational Technologies Affecting Transportation
  - NCHRP 20-24(111) - State DOT CEO Leadership Forum on Connected & Autonomous Vehicles and Transportation Infrastructure Readiness in conjunction with 2017 ITSWC, Montreal, Canada
  - NCHRP 20-24(112) - Connected Road Classification System (CRCS) Development
  - NCHRP 20-36 - Highway Research and Technology -- International Information Sharing

- **Upcoming Projects**
  - ACRP 03-48 - Automation of Airside Vehicle Operations
  - NCHRP 08-116 - Framework for CV Pilot and Smart Cities Data Analytics for Policy Guidance
  - NCHRP 20-102(04) - Evaluation Guidance for Automated Vehicle Pilot and Demonstration Projects
  - NCHRP 20-102(10) - Cybersecurity Implications of CV/AV Technologies on State and Local Transportation Agencies
  - NCHRP 20-102(11) - Summary of Existing Studies on the Effects of CV/AV on Travel Demand
  - NCHRP 20-102(13) - Planning Data Needs and Collection Techniques for CV/AV Applications
  - NCHRP 20-102(14) - Data Management Strategies for CV/AV Applications for Operations
  - NCHRP 20-102(15) - Understanding the Impacts of the Physical Highway Infrastructure Caused By the Increased Prevalence of Advanced Vehicle Technologies
  - NCHRP 20-24(116) - Guidance on Roles and Responsibilities in Operation of Automated Vehicles

Reports from the National Academies Press on Connected & Automated Vehicles

- Strategies to Advance Automated and Connected Vehicles: Briefing Document
- Review of the Research Program of the U.S. DRIVE Partnership: Fifth Report

Committees & Panels

Sign-up to be a committee "Friend"

**Technical Activities Division Standing Committees** – Search by transportation mode and committee topic

- ABJ70 - Artificial Intelligence and Advanced Computing Applications
- AHB15 - Intelligent Transportation Systems
- AHB30 - Vehicle-Highway Automation
- AL040 - Emerging Technology Law
- AND20 - User Information Systems
Transportation Research Board

Task Forces
- Search for task force under committee here
  - AP040 - Automated Transit Systems
  - ABJ92T - Understanding Big Data in Freight Transportation

Panels
- D20102 - NCHRP Project Panel on Impacts of Connected and Automated Vehicles on State and Local Transportation Agencies
- DA0330 - ACRP Project Panel on Impact of Commercial Unmanned Aerial Vehicles on Airports

Councils
- A0040T – Young Member Council

Recent and Upcoming Events

Conferences (co-sponsored by TRB)
- Left hand menu “upcoming conferences by topic”
  - Transport Research Arena 2018*
    April 16-19, 2018
    Vienna, Austria
  - Road Safety on Five Continents (RS5C) *
    May 20-22, 2018
    Jeju Island, South Korea
  - 7th International Conference on Innovations in Travel Modeling (ITM)*
    June 24-27, 2018
    Atlanta, Georgia

Webinars
- View upcoming webinars, suggest a webinar or add registration information

TRB’s Transportation Research Information Services (TRIS)

TRIS includes the TRB Library and the TRIS Databases (listed below) which are available for free on TRB’s website.

The TRB Library provides information services to TRB staff, sponsors, TRB Committee members and panels and researchers. Access to the TRB Library is a benefit to TRB sponsors and TRB committee members.

In cooperation with your State DOT Library or Information Service, the TRB Library provides:
- Reference and research assistance
- Literature searches
- Articles for TRB Committee work

The TRB Library provides training on effective and efficient use of the following TRIS resources:

TRID – The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation - trid.trb.org

Practice Ready Papers (PRP) Database - Papers with information that is ready for immediate implementation or requires minimal additional research or implementation effort - prp.trb.org

Publications Index (PubsIndex) Database – The papers, articles and reports published by the Transportation Research Board, Highway Research Board, Strategic Highway Research Programs or the Marine Board - pubsindex.trb.org

Research in Progress (RiP) Database – Current or recently completed transportation research projects - rip.trb.org

Research Needs Statements (RNS) – Research needs as identified by TRB Technical Activities standing committees - rns.trb.org

Contact the Library at TRBLibrary@nas.edu or 1 (202) 334-2989