TRB Snap Search: Innovation

TRB’s involvement in research on Innovation from 2019-2020

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

All available Snap Searches can be accessed online here: http://www.trb.org/InformationServices/Snap.aspx

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 Innovation in the past year.

Specialty Websites

- Transformational Technologies

Specialty Report

- Critical Issues in Transportation 2019

Recent Reports & Publications

- Airport Cooperative Research Program (ACRP)
  - Report 203 - Guidelines for Collecting, Applying, and Maintaining Pavement Condition Data at Airports
  - Research Results Digest 28 - Thought Leader Forum Summary—Emerging Issues for ACRP
  - Synthesis 99 - Emergency Working Groups at Airports

- IDEA Projects
  - Safety IDEA 34 - Prototype System for Managing and Analyzing Enterprise Rail Transport Risks of Hazardous Materials
  - Transit IDEA 87 - Development of pathNav: A Pedestrian Navigation Tool that Utilizes Smart Data for Improved Accessibility and Walkability

- Letter Reports
  - Transit Research Analysis Committee - Letter Report: April 22, 2019

- National Cooperative Highway Research Program (NCHRP)
  - NCHRP 25-25/Task 105 - A Guidebook for Communications between Transportation and Public Health Communities
  - NCHRP 25-25/Task 109 - Successful Practices for Environmental Commitments in Public/Private Partnerships (P-3) and Design-Build (D-B) Contracts
  - IDEA Report 199 - Using Medical X-Ray Machine to Determine the Service Life of Concrete
  - IDEA Report 193 - Turning Movement Counts on Shared Lanes: Prototype Development and Analysis Procedures
  - Report 924 - Foreseeing the Impact of Transformational Technologies on Land Use and Transportation
  - Report 918 - Approaches for Determining and Complying with TMDL Requirements Related to Roadway Stormwater Runoff
  - Synthesis 542 - Prioritization of Freight Investment Projects
- **Synthesis 541** - Practices on Acquiring Proprietary Data for Transportation Applications
- **Synthesis 539** - Landscape Development and Management Practices for Urban Freeway Roadsides
- **Synthesis 534** - Emerging Technologies for Construction Delivery

**Special Reports**
- **Report 331** - The Vital Federal Role in Meeting the Highway Innovation Imperative

**Transportation Research Circulars**
- **E-Circular 253** - Transformational Technologies in Transportation: Impacts on Traditional Research Processes and Programs
- **E-Circular 244** - Mobility on Demand: A Smart, Sustainable, and Equitable Future

**Current & Upcoming Projects**

**Current Projects**
- **ACRP 01-37** - Performance Measures for State Aviation Agencies
- **ACRP 01-40** - Evaluating the Traveler’s Perspective to Improve the Airport Customer Experience
- **ACRP 01-43** - Conducting Consumer Research of Air Passengers
- **ACRP 03-44** - Building and Maintaining Air Service Through Incentive Programs
- **ACRP 03-49** - Effective Collaboration to Plan and Respond to Communicable Disease Threats
- **ACRP 03-51** - Electric Aircraft of the Horizon -- An Airport Planning Perspective
- **ACRP 06-05** - Guidance for Diversity in Airport Businesses Contracting and Workforce Programs
- **ACRP 09-18** - Rapid Airfield Concrete Pavement Slab Replacement and Patching
- **ACRP 09-19** - Airfield Pavement Markings - Effective Techniques for Removal and Temporary Applications
- **ACRP Synthesis 11-03/Topic S01-19** - Data Acquisition and Protocols for Risk Management
- **BTSCRPT BTS-01** - Guidance for Employer-Based Behavioral Traffic Safety Programs for Drivers in the Workplace
- **BTSCRPT BTS-02** - Guide for Behavioral Traffic Safety Messaging on Variable Message Signs
- **BTSCRPT BTS-06** - MPO and SHSO Coordination on Behavioral Traffic Safety
- **BTSCRPT BTS-07** - Assessing the Impacts of Connected, Automated, and Autonomous Vehicles on the Future of Transportation Safety
- **BTSCRPT BTS-09** - The Influence of Infrastructure Design on Distracted Driving
- **NCHRP 03-128** - Business Intelligence Techniques for Transportation Agency Decision Making
- **NCHRP 03-131** - Guidance for Planning and Implementing Multimodal, Integrated Corridor Management
- **NCHRP 03-135** - Wrong-Way Driving Solutions, Policy, and Guidance
- **NCHRP 08-111** - Effective Decision-Making Methods for Freight-Efficient Land Use
- **NCHRP 08-116** - Framework for Managing Data from Emerging Transportation Technologies to Support Decision-Making
- **NCHRP 08-118** - Risk Assessment Techniques for Transportation Asset Management
- **NCHRP 08-121** - Accessibility Measures in Practice: Guidance for Transportation Agencies
- **NCHRP 12-117** - Guidelines for Corrosion Protection of Steel Bridges Using Duplex Coating Systems
- **NCHRP 15-67** - Wind Drag Coefficients for Highway Signs and Support Structures
- **NCHRP 17-91** - Assessing the Impacts of Automated Driving Systems (ADS) on the Future of Transportation Safety
- **NCHRP 20-44(05)** - Dissemination of “NCHRP Domestic Scan 14-01: Leading Management Practices in Determining Funding Levels for Maintenance andPreservation”
- **NCHRP 20-65/Task 79** - Program Management Insights for the 5310 Program (Including Sub-Grantee Consolidation and Urban 5310)
- **NCHRP 20-65/Task 81** - Best Practices in Rural Service Assessment
- **NCHRP 20-102(10)** - Cybersecurity Implications of CV/AV Technologies on State and Local Transportation Agencies
- **NCHRP 20-102(12)** - Business Models to Facilitate Deployment of CV Infrastructure to Support AV Operations
- **NCHRP 20-102(15)** - Impacts of Connected and Automated Vehicle Technologies on the Highway Infrastructure
- **NCHRP 20-112** - A Research Roadmap for Transportation and Public Health
- **NCHRP 25-57** - Innovative Mitigation Strategies for Highway Noise
- **NCHRP 25-59** - Pollinator Habitat Conservation Along Roadsides
- **NCHRP 25-25/Task 115** - Estimates of Emissions Reductions from Future Fleet Changes for Use in Air Quality Models
- **NCHRP 25-25/Task 119** - Enhancing the International Stormwater BMP Database to Serve as a Highway Specific BMP Database
- **NCHRP 25-25/Task 120** - Use of the State Department of Transportation Portal to the International Stormwater BMP Database
- **NCHRP Synthesis 20-05/Topic 50-04** - Utility Pole Safety and Hazard Evaluation Approaches
- **NCHRP Synthesis 20-05/Topic 50-07** - Electronic Ticketing, of Materials for Construction Management
- **NCHRP Synthesis 20-05/Topic 50-10** - Availability of Pedestrian Infrastructure Data For Routing and Network Analysis
- **NCHRP IDEA 20-30/IDEA 203** - Safer Cushions
- **NCHRP IDEA 20-30/IDEA 207** - MILDGLASS: GFRP Strand for Resilient Mild Pre-Stressed Concrete
- **NCHRP IDEA 20-30/IDEA 212** - Non-Gating Guardrail End Terminals
- **NCHRP IDEA 20-30/IDEA 214** - An Enhanced Network-Level Curve Safety Assessment and Monitoring Using Mobile Devices
- **TCRP B-47** - Impact of Transformational Technologies on Underserved Populations
- **TCRP C-23** - Assessing and Mitigating Electrical Fires on Transit Vehicles
- **TCRP F-27** - Characteristics and Elements of Non-Punitive Employee Safety Reporting Systems for Public Transportation
- **TCRP Synthesis J-07/Topic SA-44** - Comprehensive Bus Network Redesign
- **TCRP Synthesis J-07/Topic SF-20** - Managing the Transit Scheduling Workforce
- **Transit IDEA J-04/A** - Plans for Tracking IDEAS and Developing Transit IDEA Marketing and Communications
- **Transit IDEA J-04/IDEA 84** - Development of a Mass-Based Automated Passenger Counter
- **Transit IDEA J-04/IDEA 88** - Evaluation of an Automatic, Individual, Computer-Based Operator Education and Training Program
- **Transit IDEA J-04/IDEA 89** - Dynamic Vehicle to Infrastructure TCIP Communications Laboratory Proof of Concept
- **Transit IDEA J-04/IDEA 90** - sUAS-Based GeoINTEL for Commuter Rail Parking in Rural and Suburban Areas
- **Transit IDEA J-04/IDEA 91** - Comprehensive Wayfinding for All (CWall)
- **Transit IDEA J-04/IDEA 94** - Evaluation of Transit Vehicle Brake Inspection Through Ultrasonic Emissions Analysis

**Upcoming Projects**
- **ACRP 01-41** - Blockchain Technology and Airports - A Primer
- **ACRP 06-08** - Human Factors in Airport Operations
- **ACRP 08-03** - Construction Safety and Phasing Plans
- **ACRP 11-02/Task 37** - Periodic Report on Transformative Technology at Airports
- **BTSCRPT BTS-12** - State Practices Promoting Older Driver Safety
- **BTSCRPT BTS-14** - Understanding and Analyzing Crash Contributing Factors (Joint project with NCHRP 22-45)
- **BTSCRPT BTS-15** - Highway Safety Strategies for Rural Communities
- **NCHRP 03-140** - Applications of RFID and Wireless Technologies for Highway Construction
- **NCHRP 06-18** - Guide for Snow and Ice Control Operations
- **NCHRP 08-127** - Emerging Issues: Impact of New Disruptive Technologies on the Performance of DOTs
- **NCHRP 08-130** - Best Practices in Coordination of Public Transit and Ride Sharing
- **NCHRP 14-45** - Model Procedures for Post-Event Bridge Damage Assessment and Engineering Evaluation
- **NCHRP 15-69** - Utility Conflict Impacts During Highway Construction
- **NCHRP 15-72** - Methodology to Define New AASHTO Green Book 7.0 Context Classification Settings Implementation as Related to Active Transportation Infrastructure
- **NCHRP 15-77** - Aligning Geometric Design Controls, Criteria and Elements with Roadway Context, Modal Priority and Functional Classification
- **NCHRP 20-127** - Development of Business Case and Communication Strategies for a State DOT Resilience Program
- **NCHRP 20-128** - Organizational and Operational Models Used by State DOTs for Emergency Response
- **NCHRP 22-44** - Development of a Crash Data Collection Tool and Application Guidelines for MASH In-Service Performance
- **NCHRP 22-45** - Understanding and Analyzing Crash Contributing Factors
- **NCHRP 23-03** - Targeted Guidance and Information Support to State DOT CEOs on Cybersecurity Issues and Protection Strategies
- **NCHRP 25-61** - Effective On-Bridge Treatment of Stormwater
- **NCHRP 20-102(20)** - Workforce Capability Strategies for State and Local Agencies
- **TCRP H-58** - Prioritization of Public Transportation Investments
- **TCRP I-05/Topic 19-02** - Legal Issues and Emerging Technologies
- **TCRP I-05/Topic 19-03** - Navigating the Complexities of Sensitive Security Information (SSI) and Protected Critical Infrastructure Information (PCI)
- **TRB/AAMVA 19-01** - RFQ: Demographic and Technological Trends Impacting the DMV of the Future

Reports from the National Academies Press on Innovation
- **Adapting to the 21st Century Innovation Environment**
Continuous Improvement of NASA's Innovation Ecosystem
The Role of NIH in Drug Development Innovation and Its Impact on Patient Access

Committees & Panels

Sign-up to be a committee "Friend"

**TRB Standing Committees** – Search by transportation mode and committee topic
- ABE25 - Congestion Pricing
- ABG20 - Transportation Education and Training
- ABI30 - Urban Transportation Data and Information Systems
- ABi65T - Freight Data Workshop
- ABP95 - Visualization in Transportation
- ABR35T - 11th University Transportation Center Spotlight Conference: Rebuilding and Retrofitting the Transportation Infrastructure
- ADB45 - Travel Forecasting Resources
- ADC10 - Environmental Analysis in Transportation
- AFF30 - Concrete Bridges
- AFS60 - Subsurface Drainage
- APS70 – Geosynthetics
- AHD60 - Maintenance Equipment
- AL040 - Emerging Technology Law
- AP020 - Emerging and Innovative Public Transport and Technologies
- AP025 - Public Transportation Planning and Development
- AP045 - Passenger Intermodal Facilities
- AP065 - Rail Transit Systems
- AR030 - Railroad Operating Technologies
- AT020 - International Trade and Transportation
- B0024 - Research and Technology Coordinating Committee (FHWA)
- B0156 - Review of Federal Highway Administration Infrastructure R&D
- B0160 - Study on Performance of Bridges
- B0164 - Update of National Naval Responsibility for Naval Engineering
- B01810602 - Critical Issues in the Airport Industry: Workshop #2--Economic and Social Sustainability
- E1008 - Rail Safety IDEA Program
- X0014 - AASHTO Special Committee on Research & Innovation

**Panels**
- D08106 - Getting Innovations in Metropolitan Freight Implemented
- D20108 - Effective Practices for Creating and Maintaining an Innovation-Delivery Culture
- D20303 - IDEA (Innovations Deserving Exploratory Analysis)
- D2557 - Innovative Mitigation Strategies for Highway Noise
- TI04 - Transit-innovations Deserving Exploratory Analysis (IDEA)

**Councils**
- A0040T – Young Member Council

Recent and Upcoming Events

**Upcoming Conferences** - Left hand menu “upcoming conferences by topic”
(Conferences cosponsored by TRB are denoted with an asterisk.)

**5th Conference of Transportation Research Group of India (CTRG)**
*December 18-21, 2019*
Bhopal, Madhya Pradesh, India

**2nd International Conference on Nanotechnology of Cement and Concrete (2NCC20)**
*May 19-21, 2020*
Irvine, California

**International Conference on Advances in Materials and Pavement Performance Prediction (AM3P)**
*May 27-29, 2020*
San Antonio, Texas

**8th International Conference on Innovations in Travel Modeling (ITM)**
June 14-20, 2020
Seattle, Washington

**Sixth Biennial Marine Transportation System Innovative Science and Technology Conference**
June 16-18, 2020
Washington, DC

**BEI International Symposium on UHPC and Emerging Concrete (BEI-UHPC)**
June 22-25, 2020
Singapore

**Geospatial Data Acquisition Technologies in Design and Construction**
July 2020
Austin, Texas

**2020 International Conference on Winter Maintenance and Surface Transportation Weather and Winter Maintenance National Peer Exchange**
September 21-24, 2020
Atlanta, Georgia

**ITS World Congress 2020***
October 4-8, 2020
Los Angeles, California

**Workshop on Traffic Simulation and CAV Modeling**
November 16-18, 2020
Irvine, California

**Second International Conference on 3D Printing and Transportation**
November 18-20, 2020

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

**Past Webinars**

- Innovative Alternative Intersection and Corridor Studies Using the HCM6 - December 5, 2019
- Emerging Issues in Transportation Project Finance - November 18, 2019
- Emerging Technologies for Construction Delivery - September 18, 2019
- Concrete Overlay Performance and Research Innovations - September 5, 2019
- Practices and Marketing to Increase Rural Transit Ridership and Investment - August 27, 2019
- Innovations in Freight Data – July 16, 2019

**TRB’s Transportation Research Information Services (TRIS)**

TRIS includes the **TRB Library** and the **TRIS Databases** (listed below) which are available 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](http://trid.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](http://pubsindex.trb.org)

**Research in Progress (RiP) Database** – Current or recently completed transportation research projects - [rip.trb.org](http://rip.trb.org)

**Research Needs Statements (RNS)** – Research needs as identified by TRB Technical Activities standing committees - [rns.trb.org](http://rns.trb.org)
Snap Searches - Formerly called 'Overview Guides,' Snap Searches provide a succinct summary of activities in TRB on a given topic including: upcoming events such as conferences and webinars; names of Committees working on relevant issues; and a list of recent reports from TRB and The National Academies - www.trb.org/InformationServices/Snap.aspx

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