TRB Snap Search: Innovation

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 220 - Guidebook for Developing a Zero- or Low-Emissions Roadmap at Airports
  - Research Results Digest 28 - Thought Leader Forum Summary—Emerging Issues for ACRP

- IDEA Projects
  - Safety IDEA 34 - Prototype System for Managing and Analyzing Enterprise Rail Transport Risks of Hazardous Materials
  - Safety IDEA 29 - Self-Deicing LED Signal for Railroads and Highway Intersections

- 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
  - NCHRP 20-1111 - Successful Practices for State Transportation Research Office's Complying with 2 CFR 200
  - IDEA Report 199 - Using Medical X-Ray Machine to Determine the Service Life of Concrete
  - IDEA Report 198 - 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 541 - Practices on Acquiring Proprietary Data for Transportation Applications
  - Synthesis 534 - Emerging Technologies for Construction Delivery

Updated 06/15/2020
• Web-Only Document 265 - Field Test of BMPs Using Granulated Ferric Oxide Media to Remove Dissolved Metals in Roadway Stormwater Runoff

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

• Transit Cooperative Research Program (TCRP)
  o Letter Report - Transit Research Analysis Committee - April 22, 2019
  o IDEA Report 90 - sUAS-based GeoINTEL1 for Commuter Rail Parking in Rural and Suburban Areas
  o IDEA Report 89 - Dynamic Vehicle to Infrastructure TCIP Communications Laboratory Proof of Concept
  o Report 212 - Stray Current Control of Direct Current-Powered Rail Transit Systems: A Guidebook

• Transportation Research Circulartors
  o E-Circular 256 - Managing Transportation Systems in a Fast-Changing World
  o E-Circular 253 - Transformational Technologies in Transportation: Impacts on Traditional Research Processes and Programs
  o E-Circular 244 - Mobility on Demand: A Smart, Sustainable, and Equitable Future

Current & Upcoming Projects

• Current Projects
  o ACRP 01-37 - Performance Measures for State Aviation Agencies
  o ACRP 01-40 - Evaluating the Traveler’s Perspective to Improve the Airport Customer Experience
  o ACRP 01-43 - Conducting Consumer Research of Air Passengers
  o ACRP 03-44 - Building and Maintaining Air Service Through Incentive Programs
  o ACRP 03-49 - Effective Collaboration to Plan and Respond to Communicable Disease Threats
  o ACRP 03-51 - Electric Aircraft of the Horizon -- An Airport Planning Perspective
  o ACRP 06-05 - Guidance for Diversity in Airport Businesses Contracting and Workforce Programs
  o ACRP 09-18 - Rapid Airfield Concrete Pavement Slab Replacement and Patching
  o ACRP 09-19 - Airfield Pavement Markings - Effective Techniques for Removal and Temporary Applications
  o ACRP Synthesis 11-03/Topic S01-19 - Data Acquisition and Protocols for Risk Management
  o BTSCRPT BTS-01 - Guidance for Employer-Based Behavioral Traffic Safety Programs for Drivers in the Workplace
  o BTSCRPT BTS-02 - Guide for Behavioral Traffic Safety Messaging on Variable Message Signs
  o BTSCRPT BTS-06 - MPO and SHSO Coordination on Behavioral Traffic Safety
  o BTSCRPT BTS-07 - Assessing the Impacts of Connected, Automated, and Autonomous Vehicles on the Future of Transportation Safety
  o BTSCRPT BTS-09 - The Influence of Infrastructure Design on Distracted Driving
  o NCHRP 03-128 - Business Intelligence Techniques for Transportation Agency Decision Making
  o NCHRP 03-131 - Guidance for Planning and Implementing Multimodal, Integrated Corridor Management
  o NCHRP 03-135 - Wrong-Way Driving Solutions, Policy, and Guidance
  o NCHRP 08-111 - Effective Decision-Making Methods for Freight-Efficient Land Use
  o NCHRP 08-116 - Framework for Managing Data from Emerging Transportation Technologies to Support Decision-Making
  o NCHRP 08-118 - Risk Assessment Techniques for Transportation Asset Management
  o NCHRP 08-121 - Accessibility Measures in Practice: Guidance for Transportation Agencies
  o NCHRP 12-117 - Guidelines for Corrosion Protection of Steel Bridges Using Duplex Coating Systems
  o NCHRP 15-67 - Wind Drag Coefficients for Highway Signs and Support Structures
  o NCHRP 17-91 - Assessing the Impacts of Automated Driving Systems (ADS) on the Future of Transportation Safety
  o NCHRP 20-44(05) - Dissemination of “NCHRP Domestic Scan 14-01: Leading Management Practices in Determining Funding Levels for Maintenance and Preservation”
  o NCHRP 20-65/Task 79 - Program Management Insights for the 5310 Program (Including Sub-Grantee Consolidation and Urban 5310)
  o NCHRP 20-65/Task 81 - Best Practices in Rural Service Assessment
  o NCHRP 20-102(10) - Cybersecurity Implications of CV/AV Technologies on State and Local Transportation Agencies
  o NCHRP 20-102(12) - Business Models to Facilitate Deployment of CV Infrastructure to Support AV Operations
  o NCHRP 20-102(15) - Impacts of Connected and Automated Vehicle Technologies on the Highway Infrastructure
  o NCHRP 20-112 - A Research Roadmap for Transportation and Public Health
  o NCHRP 25-57 - Innovative Mitigation Strategies for Highway Noise
  o NCHRP 25-59 - Pollinator Habitat Conservation Along Roadways
- 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 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
  - BTSCR BPS-12 - State Practices Promoting Older Driver Safety
  - BTSCR BTS-14 - Understanding and Analyzing Crash Contributing Factors (Joint project with NCHRP 22-45)
  - BTSCR 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
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

- AB25 - Congestion Pricing
- ABG20 - Transportation Education and Training
- ABJ30 - Urban Transportation Data and Information Systems
- ABJ65T - Freight Data Workshop
- ABJ95 - 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
- AFS70 - Geosynthetics
- AHD60 - Maintenance Equipment
- AL040 - International Trade and Transportation
- 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
- DA11081602 - 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
- D2030 - IDEA (Innovations Deserving Exploratory Analysis)
- D2557 - Innovative Mitigation Strategies for Highway Noise
- TJ04 - Transit-innovations Deserving Exploratory Analysis (IDEA)

Councils

- A001C – Young Members Coordinating Council

Recent and Upcoming Events

Upcoming Conferences - Left hand menu “upcoming conferences by topic”

(Conferences cosponsored by TRB are denoted with an asterisk.)

International Conference on Advances in Materials and Pavement Performance Prediction (AM3P)*
August 5-7, 2020
Online
Bridging Transportation Researchers Online Conference*
August 11-12, 2020
Online

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
Online

GeoMEast International Conference 2020: "Sustainable Civil Infrastructures”*
November 8-12, 2020
Cairo, Egypt

TRB Transit Safety and Security Conference and APTA Mid-year Safety and Security Seminar
November 16-18, 2020
Washington, DC

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

Webinars – View upcoming webinars, suggest a webinar or add registration information
Past Webinars
- Attracting the Future Construction Workforce – Case Studies – May 12, 2020
- Greener in Two Ways – Innovative Sustainability Solutions for Airports – March 2, 2020
- 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

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
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](http://www.trb.org/InformationServices/Snap.aspx)

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