TRB Snap Search: Cybersecurity

TRB’s involvement in research on Cybersecurity from 2017-2021

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 Cybersecurity within the past four years.

Subject Webpage

- TRB Cybersecurity Resource Center

Recent Reports & Publications

- Airport Cooperative Research Program (ACRP)
  - Report 140 - Guidebook on Best Practices for Airport Cybersecurity

- Conference Proceedings
  - Proceedings on the Web 28 - Introduction to Blockchain and Airport Operations in a COVID-19 Environment

- National Cooperative Highway Research Program (NCHRP)
  - NCHRP 03-127 - Cybersecurity of Traffic Management Systems
  - Report 975 - Transportation System Resilience: Research Roadmap and White Papers
  - Report 931 - A Guide to Emergency Management at State Transportation Agencies
  - Report 930 - Security 101: A Physical & Cybersecurity Primer for Transportation Agencies
  - Web-Only Document 266 - Developing a Physical and Cyber Security Primer for Transportation Agencies
  - Web-Only Document 221 - Protection of Transportation Infrastructure from Cyber Attacks: A Primer

- Transit Cooperative Research Program (TCRP)
  - Legal Research Digest 51 - Technology Contracting for Transit Projects
  - Synthesis 146 - Transit Security Preparedness

- Transportation Research Circulars
  - E-Circular 226 - Transportation System Resilience: Preparation, Recovery, and Adaptation

- Transportation Research Record: Journal of the Transportation Research Board
  - Volume 2619 - Traffic Signal Systems: Volume 1

Current & Upcoming Projects

- Current Projects
  - ACRP 03-57 - A Guidebook to Prepare Airports for Transformations in Wireless Connectivity
  - NCHRP 08-120 - Initiating the Systems Engineering Process for Rural Connected Vehicle Corridors
  - NCHRP 20-102(10) - Cybersecurity Implications of CV/AV Technologies on State and Local Transportation Agencies
  - NCHRP 20-124 - Deploying Transportation Security Practices in State DOTs
- NCHRP 23-02 - Secure Information Environments for Collaboration and Knowledge Sharing: Guidance for State DOTs
- NCHRP 23-03 - Targeted Guidance and Information Support to State DOT CEOs on Cybersecurity Issues and Protection Strategies

- **Upcoming Projects**
  - ACRP 01-41 - Airport Blockchain Implementation Guidebook
  - NCHRP 20-102(14) - Data Management Strategies for CV/AV Applications for Operations
  - NCHRP 20-102(27) - Realistic Timing Estimates for Automated Vehicle Implementation

- **Reports from the National Academies Press on Cybersecurity**
  - The Future of Electric Power in the United States
  - Key Challenges for Effective Testing and Evaluation Across Department of Defense Ranges
  - Empowering the Defense Acquisition Workforce to Improve Mission Outcomes Using Data Science
  - Advanced Technologies for Gas Turbines
  - Communications, Cyber Resilience, and the Future of the U.S. Electric Power System
  - Advancing Aerial Mobility
  - Safeguarding the Bioeconomy
  - Air Force Software Sustainment and Maintenance of Weapons Systems
  - Models to Inform Planning for the Future of Electric Power in the United States
  - A Quadrennial Review of the National Nanotechnology Initiative
  - A Strategic Vision for Biological Threat Reduction
  - Implications of Artificial Intelligence for Cybersecurity
  - Beyond Spectre: Confronting New Technical and Policy Challenges
  - Robust Machine Learning Algorithms and Systems for Detection and Mitigation of Adversarial Attacks and Anomalies
  - Decrypting the Encryption Debate - A Framework for Decision Makers
  - Recoverability as a First-Class Security Objective
  - Emerging Trends and Methods in International Security
  - Emergency Alert and Warning Systems - Current Knowledge and Future Research Directions
  - Foundational Cybersecurity Research: Improving Science, Engineering, and Institutions

- **Committees & Panels**
  - **Sign-up to be a committee "Friend"**
  - **TRB Standing Committees** - Search by transportation mode and committee topic
    - AIL40 - Emerging Technology Law
    - AMR10 - Critical Transportation Infrastructure Protection
    - AV090 - Aviation Security and Emergency Management
    - D03127 - Cybersecurity of Traffic Signals and Related ITS Equipment
    - D205948 - Protection of Transportation Infrastructure from Cyber Attacks
    - DA0502 - Airport Cyber Security Best Practices
  - **Task Forces** - Search for task force under committee here
    - ABJ5T - Data Privacy, Security and Protection Policy
    - AP018T - Transit Safety and Security

- **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.)
    - **Automated Road Transportation Symposium 2021**
      *July 12, 2021*
      *Online*
    - **Bridging Transportation Researchers Online Conference**
      *August 5, 2021*
Online

**Conference on Transformative Times in Transportation Security**
*October 26, 2021*
*Washington, D.C.*

**18th Biennial National Harbor Safety Committee Conference**
*June 13-15, 2022*
*Boston, MA*

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

**Past Webinars**
- Strategically Implementing Transportation Security Measures – April 28, 2021
- Leading Future Improvements in Transportation Safety – March 5, 2019
- Hacks and Attacks: Keeping Critical Transportation Infrastructure Resilient – August 30, 2018
- Effective Practices for the Protection of Highway Transportation Infrastructure from Cyber Incidents – February 21, 2017

**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:**

- **Transportation Research International Documentation (TRID)** – [trid.trb.org](http://trid.trb.org) - The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- **Transportation Research Thesaurus (TRT)** – [trt.trb.org](http://trt.trb.org) - A tool to improve the indexing and retrieval of transportation information.
- **Research in Progress (RIP) Database** – [rip.trb.org](http://rip.trb.org) - Current or recently completed transportation research projects
- **Research Needs Statements (RNS)** – [rns.trb.org](http://rns.trb.org) - Research needs as identified by TRB Technical Activities standing committees
- **Publications Index (PubsIndex) Database** – [pubsindex.trb.org](http://pubsindex.trb.org) - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

**Contact or Questions:** [TRBLibrary@nas.edu](mailto:TRBLibrary@nas.edu)