

The TRB 101st Annual Meeting will be held in person January 9–13, 2022 in Washington, D.C. Many ITS-Davis representatives will be participating in the meetings, sessions, and exhibits. Their presentations are listed below with session number, title, date, time, presentation topics, and authors.

SUNDAY, JANUARY 9, 2022

PRESENTATIONS AND PAPERS

1:30 PM-4:30 PM ET

Workshop 1019: Early Academic Successful Careers: Resources and Advice

Program Managers Panel

ITS-Davis Presenter: *Yueyue Fan*

MONDAY, JANUARY 10, 2022

COMMITTEE MEETINGS

6:00 PM-7:30 PM ET

International Aspects of Transportation Energy, AMS30(1), Joint Subcommittee of AMS30, AMS40

ITS-Davis President: *Lew Fulton*

PRESENTATIONS AND PAPERS

8:00 AM-9:30 AM ET

Lectern Session 1041: Hot Topics and Emerging Issues in Environmental Analysis and Ecology

Using Economic Analysis to Support Decisions for Wildlife-Vehicle Collision Reduction: The “Wildlife Crossing Calculator”

ITS-Davis Presenters: *Fraser Shilling, Graham Porter, and David Waetjen*

Poster Session 1062: Advances in Construction Management

Probabilistic Estimation of Roadway Construction Costs using Unsupervised Machine Learning and Monte Carlo Simulations

ITS-Davis Presenters: *Sampat Kedarisetty and Changmo Kim*

Poster Session 1064: Trending Issues in Low-Volume Roads

Meta-Analysis of Soil Property Relationships and Construction Platform Design

ITS-Davis Presenters: *Jeremy Lea and Rongzong Wu*

Poster Session 1068: Transportation Equity Mega-Poster Session

Planning for Zero Traffic Deaths: An evaluation of Equity in Vision Zero Strategies in Select U.S Cities

ITS-Davis Presenter: *Sravya Kamalapuram*

Equity in Transportation Services and Organizational Policies: A Comparative Analysis of Three West Coast Transit Agencies

ITS-Davis Presenter: *Aakansha Jain*

The How and Why of Shared E-scooter Mode Substitution Patterns

ITS-Davis Presenter: *Giovanni Circella*

An Equity Analysis of Proposed Congestion Pricing Schemes in the San Francisco Bay Area

ITS-Davis Presenters: *Kanglong Wu, Zenghao Hou, and H. Zhang*

10:30 AM-12:00 PM ET

Lectern Session 1085: Progressing the U.S. Electric Vehicle Agenda

ITS-Davis President: *Alan Jenn*

The Race to Zero-Emission Freight: Lessons Learned from the Deployment of Electric Trucks in the Heavy-Duty Trucking Sector

ITS-Davis Presenters: *Claire Sugihara, Scott Hardman, and Kenneth Kurani*

**Poster Session 1093: Traffic Flow Theory, Part 1: Network Modeling and Control
Stochastic Calibration of Automated Vehicle Car-following Control: An Approximate Bayesian Computation Approach**

ITS-Davis Presenter: *Ghazaleh Jafarsalehi*

Poster Session 1096: Emerging Statistical and Econometric Approaches for the Analysis of Travel and Safety Data

To Purchase or Lease: Are Electric Vehicle Purchasers and Lessees Different?

ITS-Davis Presenters: *Kelly Hoogland, Debapriya Chakraborty, and Scott Hardman*

1:30 PM-3:00 PM ET

Poster Session 1135: Current Issues in Environmental Analysis and Ecology

When Nature Bites Back: Disrupted Coastal Highway Travel with Sea Level Rise

ITS-Davis Presenters: *Shenyang Chen and Fraser Shilling*

Wildlife-Responsive Crossing Structure Design

ITS-Davis Presenters: *Sean McDowell and Fraser Shilling*

Using Economic Analysis to Support Decisions for Wildlife-Vehicle Collision Reduction: The "Wildlife Crossing Calculator"

ITS-Davis Presenters: *Graham Porter, David Waetjen, and Fraser Shilling*

Measuring Rapid Shoreline Change and Threats to Infrastructure

ITS-Davis Presenters: *Fraser Shilling*

Poster Session 1148: Accessibility and Autonomy: Emerging Mobility and Rideshare Options

Micro- and Macro-accessibility in Transportation for People with Disabilities

ITS-Davis Presenters: *Prashanth Venkataram, Giovanni Circella, Austin Brown, and Daniel Sperling*

4:00 PM-5:30 PM ET

Lectern Session 1161: Technology, Climate, and Governance: Managing Mobility and Access in Public Lands Through Disruptive Change

Escaping the Heat: Climate Change and Visitation to the Lake Tahoe Basin

ITS-Davis Presenters: *Susie Pike and Susan Handy*

Poster Session 1177: Advances in Understanding About Bicycle Safety, Modeling, and Behavior

To Bike or Not to Bike: Exploring the Influence of Socio-Demographic and Latent Perception of the Built Environment on Choosing Bicycle for Commuting and Non-Commuting Trips

ITS-Davis Presenter: *Hossain Mohiuddin*

Poster Session 1196: Current Issues in Air Quality and Greenhouse Gas Mitigation

Hold that Mountain: The Adverse Affects of Driver Inputs on Plug-in Hybrid Electric Vehicle Energy Use and Emissions

ITS-Davis Presenters: *Chaitanya Vaishnavi Karanam, Adam Davis, Claire Sugihara, Katrina Sutton, and Gil Tal*

Prediction Framework for Searching for Parking Average Vehicle Cruising Time and Emissions in Urban Areas

ITS-Davis Presenters: *Ivan Runhua Xiao and Miguel Jaller*

TUESDAY, JANUARY 11, 2022

COMMITTEE MEETINGS

8:00 AM-9:30 AM ET

Effects of Information and Communication Technologies on Travel Choices Committee, AEP35

ITS-Davis President: *Giovanni Circella*

1:30 PM-3:00 PM ET

Energy and Demand Implications of Connected and Automated Vehicles, AMS30(3), Joint Subcommittee of AMS30, ACP30

ITS-Davis President: *Austin Brown*

PRESENTATIONS AND PAPERS

8:00 AM-9:30 AM ET

Lectern Session 1209: Design and Performance of Concrete Overlays

Full-Scale Experimental Evaluation of the Flood Resiliency of Thin Concrete Overlay on Asphalt Pavements

ITS-Davis Presenters: *Julio Paniagua, John Harvey, Rongzong Wu, and Fabian Paniagua*

Lectern Session 1212: Leading Research on the Future of Bus Transit Systems

Clusterization of Operating Speed Distribution Based on GPS Data from Public Transport Buses

ITS-Davis Presenter: *Jaime Soza-Parra*

Lectern Session 1213: Advances in Freight Planning and Logistics and the Future of Supply Chains

Impacts of Precautionary and Opportunistic Buying Behaviors on Supply Chain Resilience During the COVID-19 Pandemic

ITS-Davis Presenters: *Daniel Rivera-Royero and Miguel Jaller*

Poster Session 1217: Advances in Traffic Signal Control

Arrival-Based Backpressure Traffic Signal Control

ITS-Davis Presenters: *H. Zhang and Hang Gao*

Poster Session 1218: Vehicle-Highway Automation 2022, Part 1

Estimating the Impact of Partial Automation on Vehicle Miles Travelled in California

ITS-Davis Presenters: *Scott Hardman, Gil Tal, and Debapriya Chakraborty*

Poster Session 1221: Benchmarking the Evidence of COVID-19 Impacts on Our Perceptions of Travel and Associated Travel Behavior

A Longitudinal Analysis of the Heterogeneous Changes in Travel Behaviors in Response to the COVID-19 Pandemic in the United States

ITS-Davis Presenters: *Xiatian Iogansen, Junia Compostella, Keita Makino, and Giovanni Circella*

Poster Session 1223: Advances in Travel Behavior Analyses in the Context of Shared Transportation Systems

Ridehailing Use, Travel Pattern and Multimodal Lifestyle: A Latent-class Cluster Analysis of One-week GPS-based Travel Diaries in California

ITS-Davis Presenters: *Xiatian Iogansen, Junia Compostella, Giovanni Circella, and Alan Jenn*

An Investigation of the Factors that Affect the Use of Pooled Ridehailing Services in California

ITS-Davis Presenters: *Junia Compostella, Xiatian Iogansen, Jaime Soza-Parra, Alan Jenn, and Giovanni Circella*

On the Interaction of Ridehailing Usage Frequency, Vehicle Availability, and Expectations to Change Vehicle Ownership among Californians: A Latent-class Trivariate Model

ITS-Davis Presenter: *Giovanni Circella*

Poster Session 1227: Case Studies and Advancements in Recycling and Asphalt Production

Fatigue and Cracking Resistance of Plant-Produced Asphalt Mixes at Different Silo Storage Times

ITS-Davis Presenters: *John Harvey, David Jones, and Liya Jiao*

Poster Session 1229: Innovations in Pavement Condition Evaluation

Object Classification in Asphalt Pavement Using Generative Model Based on Deep Learning

ITS-Davis Presenter: *Hanyu Deng*

Road Detection and Maintenance based on Ground Penetrating Radar: an Object Detection and 3D Reconstruction Approach

ITS-Davis Presenter: *Hanyu Deng*

Poster Session 1230: Built Environment, Accessibility, and Equity Considerations in Public Transportation

Walking the Last Mile: Barriers and Solutions to Suburban Transit Access

ITS-Davis Presenter: *Jesus Barajas*

10:30 AM-12:00 PM ET

Poster Session 1276: Laboratory and Field Evaluation of the Mechanical Response and Durability of Asphalt Mixtures

Laboratory Performance Evaluation of Asphalt-Treated Cold Recycled Mixtures Using Simple and Practical Current Tests

ITS-Davis Presenter: *David Jones*

Poster Session 1283: Rethinking Urban Streets

Were COVID Pedestrian Streets Good for Business? Interviews Reveal a Recipe for Success

ITS-Davis Presenters: *Hayden Andersen, Dillon Fitch, and Susan Handy*

WEDNESDAY, JANUARY 12, 2022

COMMITTEE MEETINGS

7:30 PM-10:00 PM ET

Freight Surveys Subcommittee, AEP25(2)

ITS-Davis President: *Miguel Jaller*

PRESENTATIONS AND PAPERS

8:00 AM-9:30 AM ET

Lectern Session 1363: Advances in the Analysis and Modeling of Greenhouse Gas Mitigation Strategies and Air Quality

Can Truck Eco-Routing Bridge the Gap in the Transition to Zero-Emissions?

ITS-Davis Presenters: *Anmol Pahwa and Miguel Jaller*

Poster Session 1368: Sharing Is Caring: Recent Research on Bikeshare, E-Scooters, and Micromobility

Estimating Reductions in Vehicle-Miles Traveled from a Dock-less E-Bike Share System

ITS-Davis Presenters: *Tatsuya Fukushige, Dillon Fitch, and Susan Handy*

Growing Bike-Share Demand and Increasing Equity: A Closer Look at the Patterns of the Sacramento Area E-Bike Share

ITS-Davis Presenters: *Hossain Mohiuddin, Dillon Fitch, and Susan Handy*

Poster Session 1373: Smartphone Apps, New Mobility, and Recent Information and Communications Technology Developments

What Do You Purchase Online And Who You Are: Empirical Evidence From The 2018 California Survey Of Emerging Transportation Trends

ITS-Davis Presenters: Niloufar Yousefi and Giovanni Circella

Poster Session 1374: Impacts of the COVID-19 Pandemic on Activities and Travel Teleworking and Commute Patterns during the COVID-19 Pandemic in Canada, Chile, Germany, and the United States.

ITS-Davis Presenters: Jai Malik, Giovanni Circella, and Jaime Soza-Parra

The Growth in Online Shopping Frequency During COVID-19: Who is Responsible and is This Increase Temporary or Long-lasting?

ITS-Davis Presenters: Jaime Soza-Parra and Giovanni Circella

Poster Session 1380: Advances in Stabilization Performance

Microcracking Considerations in Full-Depth Reclamation with Cement

ITS-Davis Presenters: Stephanus Louw, David Jones, John Harvey, and Joseph Hammack

Poster Session 1387: Simulation, Human Behavior, and Infrastructure for Evacuations

Predicting Traffic Performance During a Wildfire Using Machine Learning

ITS-Davis Presenters: H. Zhang, Justin Darr, and Zenghao Hou

10:30 AM-12:00 PM ET

Lectern Session 1394: Global Overview of Recent Advances in Traffic Flow Theory Data-Driven Stochastic String Stability Analysis for Car-Following Control of Automated Vehicles

ITS-Davis Presenter: Ghazaleh Jafarsalehi

Poster Session 1415: Research on Artificial Intelligence and Advancing Computing Applications

A Comparative Study of Freeway Travel Times from Four Data Sources

ITS-Davis Presenters: H. Zhang, Zenghao Hou, and Xinyang Zhang

Poster Session 1417: Asphalt Pavements: Today and Tomorrow

Calibration of a Mechanistic-Empirical Cracking Model using Network Level Field Data

ITS-Davis Presenters: Rongzong Wu, John Harvey, Jeremy Lea, David Jones, and Stephanus Louw

Reflective Crack Initiation of Asphalt Overlays on Jointed Concrete Pavement Using Finite Element Model

ITS-Davis Presenters: Liya Jiao, Rongzong Wu, and John Harvey

4:00 PM-5:30 PM ET

Poster Session 1429: Current Issues in Transportation Energy

Literature Review on Interactions of Pavements and Electric Vehicles and Proposed Research Roadmap

ITS-Davis Presenters: *Ali Butt and John Harvey*

Poster Session 1430: Current Issues in Alternative Fuels and Technologies

Investigating the Differences between Urban, Suburban, and Rural Transit Networks for Battery Electric Buses

ITS-Davis Presenters: *Peter Benoliel, Alan Jenn, and Gil Tal*

Total Cost of Ownership of Electric and Conventional Vehicles: Analyzing the Effect of Supply-Side Uncertainties

ITS-Davis Presenters: *Koral Buch, Debapriya Chakraborty, and Gil Tal*

From Sport to Eco: A Case Study of Driver Inputs on Electric Vehicle Efficiency

ITS-Davis Presenters: *Claire Sugihara, Katrina Sutton, Adam Davis, Chaitanya Vaishnavi Karanam, and Gil Tal*

Distribution Grid Impacts of Electric Vehicles: A California Case Study

ITS-Davis Presenter: *Alan Jenn*

THURSDAY, JANUARY 13, 2022

PRESENTATIONS AND PAPERS

9:00 AM-12:00 PM ET

Workshop 1433: Virtual Activities, Travel Behavior, and Demand Management in a Post-Pandemic Era

ITS-Davis President: *Giovanni Circella*