

Nearly 80 ITS-Davis representatives are participating in the 99<sup>th</sup> annual meeting of the Transportation research Board to be held January 12-16<sup>th</sup> in Washington, D.C. Their presentation are listed below with session number, title, date, time, paper title, and authors.

**SUNDAY, JANUARY 12, 2020**

**PRESENTATION AND PAPERS**

**1:30 PM-4:30 PM**

**Workshop 1054: Developing National Standards for Animal-Vehicle Collision Data Collection Systems: Brief Review and Working Discussion**

***Facilitated Discussion of Experts with Audience Participation***

**ITS-Davis Presenter:** *Fraser Shilling*

**Workshop 1059: Developing Performance Prediction Models**

***Data Issues and Pre-Processing***

**ITS-Davis Presenter:** *Jeremy Lea*

**Workshop 1085: Improving Last-Mile and 50-Foot Logistics with Smart Initiatives to Improve Freight Mobility**

***Understanding Faster and Faster Deliveries: Traditional Facility Location Problems and New Delivery Technologies and Services***

**ITS-Davis Presenter:** *Miguel Jaller*

**MONDAY, JANUARY 13, 2020**

**COMMITTEE MEETINGS**

**1:30 PM-3:15 PM**

**Sustainability Measurement Subcommittee, ADD40(1)**

**ITS-Davis Participant:** *Giovanni Circella*

**1:30 PM-5:30 PM**

**Low-Volume Roads Committee**

***Design, Geotechnology, Pavements***

**ITS-Davis Presider:** *David Jones*

**PRESENTATION AND PAPERS**

**8: 00 AM-9:45 AM**

**Lectern Session 1101: Autonomous Vehicles and Travel Behavior**

***Do People Expect Autonomous Vehicles to Change Their Residential Location and Vehicle Ownership? Early Glimpses from the State of Georgia***

**ITS-Davis Presenter:** *Giovanni Circella*

**Lectern Session 1103: Electric Vehicle Market Development: Moving to Mainstream Adoption**

***Plug-in Electric Vehicle Diffusion in California: Role of Exposure to New Technology at Home and Work***

**ITS-Davis Presenters:** *Debapriya Chakraborty, David Bunch, Bingzheng Xu, Gil Tal*

**Lectern Session 1105: Selected Presentations from the 12th TRB International Conference on Low-Volume Roads**

***Applying Pavement Preservation Principles in Unpaved Road Management with Specific Reference to Fines Preservation and Dust Control***

**ITS-Davis Presenter:** *David Jones*

**Lectern Session 1128: Shared Mobility and Traveler Choices**

***Factors Influencing Bicycling Propensity: Evidence from the California Millennials Dataset 2015***

**ITS-Davis Presenters:** *Tatsuya Fukushige, Susan Handy*

**Poster Session 1140: Research Topics in Construction Management**

***A Methodology to Identify Cross-Functional Synergies of CIM Knowledge within a Transportation Agency***

**ITS-Davis Presenters:** *Alireza Shams, Sean Donohoe, Bahram Ravani*

**Poster Session 1144: Bicycle Research Poster Session**

***Commuting Mode Choices and Bicycle Level of Traffic Stress: Findings from the Franklin County, Ohio***

**ITS-Davis Presenter:** *Kailai Wang*

**Poster Session 1156: Current Research in Freight Planning and Logistics**

***Evaluating the Costs and Distribution Structure in Last Mile Deliveries Under Short Time-Windows***

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

**10:15 AM-12:00 PM**

**Lectern Session 1167: Shared Mobility, Automated Vehicles, and the Future of Mobility**

***Controlling for Selection and Simultaneity Biases in the Relationships between Ridehailing Use and Vehicle Ownership in the 2017 NHTS***

**ITS-Davis Presenter:** *Farzad Alemi*

***Adoption of Ridehailing in Four Megacities in Developing Countries***

**ITS-Davis Presenters:** *Jai Malik, Giovanni Circella, Farzad Alemi, Lewis Fulton*

**Lectern Session 1173: Concrete Overlays: Modeling, Fibers, and Materials**

***Evaluation of the Moisture-Dependence of Concrete CTE and its Impacts on the Thermal Deformations and Stresses of Concrete Pavements***

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

**Poster Session 1224: Optimizing Highway Maintenance**

**Regression Models of Road User Cost Prediction for Highway Maintenance and Rehabilitation for Life Cycle Planning in California**

ITS-Davis Presenters: Sampat Kedarisetty, Changmo Kim, John Harvey

**Poster Session 1226: Ridesourcing, Ridesharing, and Carsharing**

**Insights from the California Mobility Panel Study: Evolution in the Use, Impacts and Limitations on the Use of (Shared) Ridehailing**

ITS-Davis Presenters: Farzad Alemi, Giovanni Circella, Grant Matson, Daniel Sperling

**The Evolution, Usage and Trip Patterns of Taxis & Ridesourcing Services**

ITS-Davis Presenter: Xiatian Wu

**Assessing the VMT Effect of Ridesourcing Services in the US -- Evidence from 2017 National Household Travel Survey**

ITS-Davis Presenter: Xiatian Wu

**1:30 PM-3:15 PM**

**Lectern Session 1242: Evaluation of Pavement Structures Using Full-Scale Accelerated Pavement Testing**

**Full-Scale Evaluation of Concrete-Asphalt Interphase in Thin Bonded Concrete Overlay on Asphalt Pavements**

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

**3:45 PM-5:30 PM**

**Lectern Session 1297: Light Duty Vehicle Energy Efficiency Gains Through New Operational Approaches and Technologies**

**From Shifting Gears to Changing Modes: The Motivations and Efficiency Impacts of Driver-induced Mode Changes**

ITS-Davis Presenters: Chaitanya Vaishnavi Karanam, Claire Sugihara, Katrina Sutton, Seshadri Srinivasa Raghavan, Gil Tal

**Lectern Session 1305: Developments in Concrete Materials Research**

**Use of Bagasse Ash as a Partial Replacement of Cement in Concrete in Pavement Applications**

ITS-Davis Presenters: Michelle Barbato, Nitin Kumar

**Poster Session 1332: Information and Communications Technologies, Smartphones, Activity Patterns, and Travel Choices**

ITS-Davis Presenter: Farzad Alemi

**Synergistic Effects of Telecommuting and the Built Environment on Sustainable Travel: A Machine Learning Approach**

ITS-Davis Presenter: Kailai Wang

**Who Wants to Share? Exploring the Factors that Affect the Frequency of Use of Ridehailing and the Adoption of Shared Ridehailing in California**

ITS-Davis Presenters: Jai Malik, Farzad Alemi, Giovanni Circella

**The Adoption of Ridehailing in the United States: Evidence from the 2017 NHTS**

ITS-Davis Presenter: Giovanni Circella

**6:00 PM-7:30 PM**

**Poster Session 1351: New Ideas for Emergency Evacuations**

**Wildfire Awareness, Departure Time, Mode Choice, and Emergency Communication: Decisionmaking in the 2018 Camp Fire Evacuation**

ITS-Davis Presenters: Sarah Grajdura, Xiaodong Qian, Deb Niemeier

**Poster Session 1484: Through the Looking Glass of Gender Issues: Mobility Challenges Across the World**

**Exploring Gender Effects on Electric Vehicle Charging Behavior: Preference or Inequity?**

ITS-Davis Presenters: Noam Baharav, Debapriya Chakraborty, Gil Tal

**TUESDAY, JANUARY 14, 2020**

**COMMITTEE MEETINGS**

**8:00 AM-9:45 AM**

**Effects of Information and Communication Technologies on Travel Choices Committee (ADB20)**

**Data and Information Technology, Planning and Forecasting**

ITS-Davis President: Giovanni Circella

**10:15 AM-12:00 PM**

**Animal-Vehicle Collisions, ANB20(2), Joint Subcommittee of ANB20, ADC30 Safety and Human Factors**

ITS-Davis President: Fraser Shilling

**12:15 PM-1:15 PM**

**Freight Surveys Subcommittee, ABJ40(2)**

**Data and Information Technology, Freight Transportation**

ITS-Davis President: Miguel Jaller

**1:30 PM-3:15 PM**

**International Aspects of Transportation Energy Subcommittee, ADC70(1)**

**Energy, Environment**

ITS-Davis President: Lewis Fulton

**Low-Volume Roads Conference Planning Subcommittee, AFB30(1)**

**Geotechnology**

ITS-Davis President: David Jones

## PRESENTATION AND PAPERS

### 8:00 AM-9:45 AM

#### **Lectern Session 1371: Electrification of Heavy Duty Trucks for Short and Long Haul Applications**

***Analysis of Advanced Battery-Electric Long Haul Trucks: Batteries, Performance, and Economics***

**ITS-Davis Presenter:** *Lewis Fulton*

#### **Poster Session 1411: Current Issues in Environmental Analysis in Transportation**

***Operationalizing Induced Travel Research***

**ITS-Davis Presenters:** *Jamey Volker, Amy Lee, Susan Handy*

#### **Poster Session 1412: Current Issues in Transportation and Air Quality**

***Environmental Impacts of Extreme Fast Charging***

**ITS-Davis Presenter:** *Alan Jenn*

#### **Poster Session 1419: In-Place Asphalt Pavement Recycling and Interface Bond**

***Development and Assessment of Rapid Tests for Construction of Asphalt-Treated Cold Recycled Pavements***

**ITS-Davis Presenter:** *David Jones*

### 10:15 AM-12:00 PM

#### **Lectern Session 1441: Adoption of Emerging Mobility Services and Other Disruptive Technologies: An International Perspective**

**ITS-Davis Presider:** *Giovanni Circella*

#### **Lectern Session 1465: Where the Rubber Meets the Road: Critical Evaluation of Bikeway Rating Methods and Cyclist Typologies**

***The Role of Attitudes in Perceptions of Bicycle Facilities: A Latent-Class Regression Approach***

**ITS-Davis Presenter:** *Giovanni Circella*

#### **Poster Session 1480: Transportation Management and Governance in the Age of Disruption**

***Impact of Vehicle Automation and Electric Propulsion on Production Costs for Mobility Services Worldwide***

**ITS-Davis Presenters:** *Lewis Fulton, Jai Malik*

#### **Poster Session 1487: Current Issues in Transportation Energy**

***What Have We Learned About a Zero-Emissions Vehicle (ZEV) Mandate? A Literature Review and Critical Research Agenda***

**ITS-Davis Presenters:** *Scott Hardman, Alan Jenn*

**Oregon's Clean Fuels Program – A Review and Status Update**

ITS-Davis Presenters: *Julie Witcover, Colin Murphy*

**Poster Session 1488: Current Issues in Alternative Transportation Fuels and Technologies**

**Emissions Benefits of Electric Vehicles in Uber and Lyft Services**

ITS-Davis Presenter: *Alan Jenn*

**Electrification of Vehicle Miles Traveled within the Household Context**

ITS-Davis Presenter: *Gil Tal*

**An Integrated Optimization Platform for Spatial-Temporal Modeling of Electric Vehicles Charging Infrastructure**

ITS-Davis Presenter: *Xinwei Li, Alan Jenn*

**Decrease Emissions or Increase Electric Miles? The Case of Plug-In Electric Vehicles and Household Travel**

ITS-Davis Presenters: *Seshadri Srinivasa Raghavan, Gil Tal*

**Are Consumers Considering Buying an Electric Vehicle? A Case Study of Sacramento**

ITS-Davis Presenters: *Scott Hardman, Kenneth Kurani*

**Plug-in Hybrid or Hybrid? Exploring Reasons Why Some Consumers Do Not Charge Their Plug-In Hybrids**

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

**Plug-In Hybrid Electric Vehicle Utility Factors: Why Observed Electrification Performance Differs from SAE J2841 Expectations?**

ITS-Davis Presenters: *Seshadri Srinivasa Raghavan, Dahlia Garas, Gil Tal*

**Large-Scale Automated Electric Ridehailing Substantially Improves the Grid-Integration Opportunity of Electric Vehicles**

ITS-Davis Presenter: *Alan Jenn*

**A Methodology for Calculating eVMT in PHEVs Based on Second by Second Logged Data**

ITS-Davis Presenters: *Christopher Nitta, Chaitanya Vaishnavi Karanam, Matthew Favetti, Gil Tal*

**Poster Session 1498: Practical Advancements in Winter Maintenance**

**Standards-Based Testing and Performance Evaluation of Highway Salt and Sand Spreader Systems**

ITS-Davis Presenters: *Wilderich White, Ty Lasky*

**1:30 PM-3:15 PM**

**Lectern Session 1512: Advances in the Use of Smartphones for the Collection of Travel Surveys**

**EM-EVAL: an evaluation procedure for smartphone-based travel diaries**

**ITS-Davis Presenter:** *Hari Venugopalan*

**Lectern Session 1520: More Mobility with Less Vehicle Miles Traveled: An Expert Panel on Ridematching in the Ridehailing Sector**

**Pooling is the Answer?!**

**ITS-Davis Presenter:** *Daniel Sperling*

**Poster Session 1555: Asphalt Binders: Modified Binders, Specifications, and Investigations Revised Short-Term Aging Procedures for Asphalt Rubber Binders**

**ITS-Davis Presenters:** *David Jones, Hashim Rizvi, Yanlong Liang*

**Poster Session 1557: Using Rubber in Asphalt Mixtures**

**Fatigue Fracture Properties of Asphalt Mixes Containing Low Content of Crumb Rubber Modifier**

**ITS-Davis Presenters:** *Yanlong Liang, John Harvey, Rongzong Wu, Liya Jiao, David Jones*

**Laboratory Evaluation of Rubberized Binder and Mix Containing a Low Content of Devulcanized Rubber Modifier**

**ITS-Davis Presenters:** *Yanlong Liang, David Jones, John Harvey, Jeffery Buscheck*

**3:45 PM-5:30 PM**

**Lectern Session 1584: Information and Communications Technologies and the Evolution of Travel Choices**

**Propensity towards Ownership and Use of Automated Vehicles: Who Are the Adopters? Who the Non-adopters? Who Is Hesitant?**

**ITS-Davis Presenters:** *Tho Le, Giovanni Circella, Grant Matson*

**Lectern Session 1590: Innovations in Pavement Design and Rehabilitation**

**Optimal Structure Combination for Inverted Asphalt Pavement Incorporating Cracks in Cement-Treated Subbase**

**ITS-Davis Presenter:** *Liya Jiao*

**Progress in Statewide and Long-Range Multimodal Planning**

**Investigating Tools for Evaluating Service and Improvement Opportunities on Bicycle Routes in Ohio**

**ITS-Davis Presenter:** *Kailai Wang*

**Poster Session 1632: Frontiers in Concrete Pavement Construction**

***Evaluation of Shrinkage Reducing Admixture Used as a Curing Spray on Concrete Pavements***

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

**Poster Session 1635: Surface Requirements of Asphalt Mixtures**

***Laboratory Characterization of Rutting and Moisture-Induced Damage Potential of Foamed Warm Mix Asphalt (WMA) Containing RAP***

**ITS-Davis Presenter:** *Mohammad Rahman*

***Effect of Additives and Aging on Moisture-induced Damage Potential of Asphalt Mixes Using Surface Free Energy and Laboratory-Based Performance Tests***

**ITS-Davis Presenter:** *Mohammad Rahman*

**Poster Session 1637: Design, Characterization, and Evaluation of Asphalt Mixtures**

***Evaluating Fatigue Performance of Fine Aggregate Matrix (FAM) Mixes using Linear Amplitude Sweep and Time Sweep Testing***

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

**WEDNESDAY, JANUARY 15, 2020**

**PRESENTATION AND PAPERS**

**8:00 AM-9:45 AM**

**Poster Session 1686: Parking Space: Recent Research in Parking Topics**

***Automated Vehicles And Central Business District Parking: The Effects Of Drop-Off-Travel On Traffic Flow And Vehicle Emissions***

**ITS-Davis Presenters:** *Huajun Chai, Caroline Rodier, H. Michael Zhang, Miguel Jaller, Jeffery Song, Gursewak Singh*

**Poster Session 1688: Travel Behavior Mega Poster Session**

***An Exploration of Statewide Fragmentation of Activity and Travel and a Taxonomy of Daily Time Use Patterns Using Sequence Analysis in California***

**ITS-Davis Presenter:** *Adam Davis*

***Consumer Response to Transformative Innovations in Transportation: Advancing the Reflexive Participant Approach to Survey Research***

**ITS-Davis Presenter:** *Kenneth Kurani*

***Exploring the Role of Attitude in the Acceptance of Self-driving Shuttles***

**ITS-Davis Presenters:** *Yan Xing, Susan Handy, Giovanni Circella, Yunshi Wang, Farzad Alemi*

***Moral Utility in Daily Time Allocation to Activities and Travel***

**ITS-Davis Presenter:** *Adam Davis*



**Poster Session 1690: Health, Transportation, and Emerging Research**

***Health Impact Assessment of Automated Vehicles in San Francisco, Bay Area Using the Integrated Transport and Health Impacts Model (ITHIM)***

**ITS-Davis Presenters:** *Elham Pourrahmani, Miguel Jaller, Neil Maizlish, Caroline Rodier*

**10:15 AM-12:00 PM**

**Poster Session 1728: Transportation Modeling Network Mega and Joint Poster Session with Traveler Behavior and Values**

***Stochastic Transit OD Demand Estimation Using Multi-day APC Observations***

**ITS-Davis Presenters:** *Ran Sun, Yueyue Fan, Yudi Yang*

**Poster Session 1736: Micromobility Poster Session: Planning, Policy, and User Behavior for Shared Bikes and Scooters**

***Does Bike Share Change Travel For Users as well as Non-Users? Evidence from the Sacramento Region***

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

**THURSDAY, JANUARY 16, 2020**

**PRESENTATION AND PAPERS**

**8:00 AM-12:00 PM**

**Workshop 1773: Toward Sustainable Management of Retired Electric Vehicle Batteries**

**ITS-Davis Presider:** *Hanjiro Ambrose*

**ADDITIONAL EVENTS**

**ITS-Davis Reception**

Tuesday, January 14 at 8 PM

Courtyard by Marriott (Shaw Ballroom)

**NCST Capitol Hill Briefing**

Tuesday, January 14, from 12-1 PM

Rayburn House Office Building, Room 2043

***Emerging Research in Freight Efficiency and Sustainability***