

TRACKS >		TRACK A: CONNECTED & AUTONOMOUS VEHICLES	TRACK B: CONNECTED & AUTONOMOUS VEHICLES - II	TRACK C: TRANSPORTATION SAFETY	TRACK D: PLANNING, DEVELOPMENT & SUSTAINABILITY	TRACK E: RAIL & PUBLIC TRANSIT	TRACK F: AIRPORTS & INFRASTRUCTURE SYSTEMS	TRACK G: TRAFFIC & FREIGHT OPERATIONS	TRACK H: HIGHWAY & AIRFIELD PAVEMENTS
DAY	TIME/DURATION	EVENT(S)							
SUNDAY	11:00 AM - 1:00 PM	Watch Party: FIFA World Cup Soccer Final							
	1:00 PM - 3:00 PM	ASCE-T&DI Committee Meetings							
	1:00 PM - 2:30 PM	National Science Foundation (NSF) Workshop: NSF Funding Opportunities in CMMI: CIS and OE Programs							
	1:00 PM - 3:00 PM	Ethics for the Practicing Engineer Workshop							
	2:45 PM - 4:15 PM	University Transportation Center (UTC) Technology Transfer Workshop							
	3:00 PM - 5:00 PM	ASCE-T&DI Committee Meetings							
	4:30 PM - 6:00 PM	Mobility as a Service Workshop							
	06:00 PM - 07:30 PM	Ice Breaker Reception in Exhibit Hall							
7:30 AM - 08:30 AM	Light Continental Breakfast in Exhibit Hall								
08:30 AM - 10:00 AM	Opening Plenary Session Robin A. Kemper, P.E., LEED AP, F.SEI, F.ASCE, ASCE President-Elect David Hein, P.E., M.ASCE, T&DI President Mayor William Peduto, Mayor of the City of Pittsburgh Leslie Richards, Secretary of Transportation, Pennsylvania Department of Transportation								
10:00 AM - 10:30 AM	Networking/Coffee Break in the Exhibit Hall								
10:30 AM - 12:00 PM	CEO Forum: Impacts of Connected & Autonomous Vehicles on Transportation & Development - Perspectives of Leaders from the Private Sector Harry Lightsey, Executive Director of Emerging Technologies Policy, General Motors Sean Harrington, Vice President of City Solutions, Smart Communities & Venues, Verizon Henry Liu, Vice President and Chief Scientist on Smart Transportation, DIDI Brian Lutes, President and CEO, Michael Baker International								
12:00 PM - 1:30 PM	Buffet Lunch in Exhibit Hall								
1:30 PM - 3:00 PM	Connected and Automated Transport - Shaping the Future Shaping the Future of Transportation: Research to Guide Change, Katherine Kortum, Transportation Research Board Modeling Connected Vehicle Impacts on Traffic Mobility, Safety and Emission, Heng Wei and Ting Zuo, University of Cincinnati; Hao Liu, The University of California at Berkeley; Y. Jeffrey Yang, U.S. Environmental Protection Agency Connected and Autonomous Vehicles Make Smart Cities Smart Cities, Wessel van der Pol and Robert Lohmann, 2getthere From ADAS to Autonomous Vehicles: A Discussion Based on a Survey in Japan, Ryosuke Ando and Yasuhide Nishihori, Toyota Transportation Research Institute	Impacts of CAVs on Transportation & Development - Session by ASCE CAV Impacts Committee The ASCE CAV Impacts Committee will present their work and findings under the following charge: 1) Track advancements of the CAV technologies and evaluate potential impacts of the advancements on transportation and development policy, research, and practice; 2) Inform relevant entities for preparation in adapting to the potential changes; and 3) Foster collaborations between CAV technology providers and transportation agencies and companies.	Transportation Data Driven Safety Analysis - Session by Federal Highway Administration & Booz Allen Hamilton Description: With limited funding, transportation professionals are required to maximize their return on investment. Data-Driven Safety Analysis (DDSA) employs evidence-based models to quantify the safety impacts. This session will overview emerging DDSA practices and applications for alternative modes of transportation. Data-Driven Safety Analysis: Integrating Safety Performance Into ALL Transportation Investment Decisions, Jerry Roche, Federal Highway Administration FAA Statistical Methods for Departure Predictability (SMDP), Dejan Neskovic, Booz Allen Hamilton Prototyping Data-Driven Risk Analytics towards Improving the Safe Transportation of Hazardous Materials for the Pipeline and Hazardous Materials Safety Administration, Dwayne Henclwood, Booz Allen	Smart Cities Planning for Autonomous Vehicles in the Smart City -- Addressing Problems and Promise, Holly Buck and Rachel Ackermann, Felsburg Holt & Ullevig Mobility as a Service-A Platform for Future Rural Mobility, Kakan Dey and Md Tawhidur Rahman, West Virginia University Radical Traffic Engineering: How to Combat Impacts of Vehicle-Centric Design, David DiGirola and Gary McNaughton, McMahon Associates, Inc.	Broad Impacts Resulting from Transit Related Automation Global Trends in Urban Metro Automation, Andrew Bata, UITP International Association of Public Transport Constraints, Progress, and Impacts on Growth of Modernizing New York's MTA System, Robert Passwell, City College of New York Self-Driving, Automated Shuttle Buses: Impacts on Transit, Koorosh Olyai, Stantec Electric Vehicle Fast-Charging Infrastructure: Challenges and Opportunities for Transportation Professionals, Eva Lerner Lam, Palisades Consulting Group Utilizing Purpose-Built, Shared-Use Autonomous Vehicles to Increase Multimodal Connections and Transit Use For New Forms of Mobility, Mathew Lesh, Coast Autonomous	Image Analytics: A Path Forward for Enhanced Infrastructure Systems Management Influence of Aggregate Geometric Features on Permanent Deformation of Asphalt Mixture Based on Image Processing and Data Mining, Qiao Dong, Jiawang Jiang, Song Li, Fujian Ni, Zili Zhao, and Hao Wu, Southeast University Investigating the Heat Generation Efficiency of Electrically-Conductive Asphalt Mastic Using Infrared Thermal Imaging, Ali Arabzadeh, Halli Ceylan, Sunghwan Kim, Alireza Sassani, and Kasthurirangan Gopalakrishnan, Iowa State University Characterization of 3D Aggregates Using Laser Triangulation, Qiang Joshua Li, Guangwei Yang, You Zhan, and Kelvin C.P. Wang, Oklahoma State University; Dominique M. Pittenger, University of Oklahoma	Regional Traffic Congestion Developing a Systematic Approach to Improving Bottleneck Analysis in North Carolina, Wei Fan, University of North Carolina at Charlotte Traffic Congestion Patterns Recognition - A Deep Learning Approach Using Convolutional Neural Networks, Jidong Yang, Betty Kretlow, Tien Yee, and M. A. Karim, Kennesaw State University Quantifying Freeway Performance Measures using Multi-Source Traffic Data, Yao-Jan Wu and Robert Kluger, University of Arizona	Airport Pavement Testing and Evaluation Full-Scale Tests of Aircraft Overloads on Airport Flexible Pavements, David Brill, Federal Aviation Administration; Hao Yin, Gemini Technologies, Inc. Implementing Advanced Wireless Sensing System for Airfield Pavement Condition Monitoring, Shuo Yang, Halli Ceylan, Sunghwan Kim, and Hesham Abdulla, Iowa State University Incorporation of Reliability into Airport Pavement Design Using Variation of Backcalculated Modulus, Richard Ji, Federal Aviation Administration; Biqing Sheng, CSRA Development of Artificial Neural Network Based Predictive Models for Dynamic Modulus of Airfield Pavement Asphalt Mixtures, Orhan Kaya, Halli Ceylan, and Sunghwan Kim, Iowa State University; Navneet Garg, Federal Aviation Administration	
03:00 PM - 03:30 PM	Networking Break in the Exhibit Hall								
3:30 PM - 5:00 PM	Sustainable Connected and Automated Transport How the Era of Connected and Autonomous Vehicles (CAVs) May Revolutionize State Safety and Emissions Inspection Programs, H Scott Matthews, Carnegie Mellon University Energy Consumption Analysis for Connected and Autonomous Mobility Systems, Eleftheria Kontou, Yuhe Chen, and Jeff Gonder, National Renewable Energy Laboratory Development and Evaluation of Automated Valet Parking System under the Connected Vehicles Environment, Cong Zhao, Yuchuan Du, and Xinghua Li, Tongji University	Where is the mobility industry heading? - Session by Society of Automotive Engineers (SAE) Vehicle Connectivity, including the real prospects of hands-free and fully autonomous driving, is revolutionizing personal mobility as profoundly as the invention of the automobile did 130 years ago. Cars, light trucks, and commercial vehicles equipped with vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I) technologies are capable of reducing crashes, energy consumption and pollution, as well as mitigating the costs associated with traffic and parking congestion. Autonomous vehicles may contribute to a new urban development with greater mobility for the elderly, the disabled and the blind. However, the high level of complexity and disruption in this area must be accompanied by standard development to enable safe, reliable and faster	Contemporary Safety Issues Evaluation Model for Urban Expressway Exit based on Cross-Sectional Traffic Flow Monitoring, Dong-Ian Su, Suzhou University of Science and Technology, Jian-bei Liu and Ma Xiaolong, First Highway Consultants Co., Ltd GIS Based Spatial Analysis of Pedestrian Crashes: A Case Study of South Carolina, Afshin Famili, Wayne Sarasa, Alireza Shams, Jennifer Ogle, and Niloufar Asadi, Clemson University Some Thoughts on Development of Road Passenger Transport in Tibet, Chen Shuo and Mai Yuanyan, China Academy of Transportation Sciences	Planning for Sustainability Evaluating the Feasibility of Imposing Restriction on the Use of Older Vehicles, Praveena Penmetra, University of Alabama, Tuscaloosa; Srinivas Pulugurtha, and Venkata Duddu, University of North Carolina at Charlotte Comparative Assessment of Vehicle Emissions Performance Across States: Time Series Evidence from Pennsylvania and Colorado Testing Programs, H. Scott Matthews and Prithvi Acharya, Carnegie Mellon University Fuel Consumption and Greenhouse Gas Emissions from On-road Vehicles on Highway Construction Work Zones, John Harvey, Ali Butt, Maryam Ostovar and Changmo Kim, University of California Davis	Automated Personal Rapid Transit and People Movers: Existing Trends and Characteristics Automated Personal Transit: An Emerging Mode and Its Impact on Travel Behavior and Urban Development, Rachel Liu, New Jersey Institute of Technology A Light Rail, Group Rapid Transit, Personal Rapid Transit Comparison, Peter Muller, ATRA Automated People Movers and Automated Transit Systems: The Pitfalls of Mitigating Safety Hazards with Procedures, Dennis Hinisch, Lea+Elliott	Sensor Technologies in Infrastructure Systems Management Implementation of Intelligent Transportation Systems in Developing Cities- A Case Study of Lagos, Nigeria, Simisola Elegba, Lagos Metropolitan Area Transport Authority LAMATA A Multi-Sensor Solution for Large-Scale Parking Space Detection, Ruimin Ke, Yifan Zhuang, and Yinhai Wang, University of Washington Piezoelectric Unit in Pavement for Energy Harvesting and Wheel Track Monitoring in the Age of Autonomous Vehicles, Hongduo Zhao and Zhongpu Lin, Tongji University	Innovative Traffic and Pavement Performance Measures Data-Driven Approach for Traffic Signal Performance Measurement and Improvement, Yao-Jan Wu and Robert Kluger, University of Arizona What Statistics Suggests about Required Runs for Simulating Signalized Intersection Delays, Ryan Fries, Reza Salehi, and Yasaman Panjebandpour, Southern Illinois University Edwardsville High Accuracy Achieved in Determining Lengths and Locations of Horizontal Curves Using Light Detection and Ranging Point Cloud Data, Mitsuru Saito, Grant Schultz, and Joseph Browning, Brigham Young University	Case Studies of Airfield Construction From Military to Cargo - Reconstruction of Taxiways at Rickenbacker International, Benjamin Cooley and Greg Heaton, Crawford Murphy & Tilly Inc. The Impact of Temporary Construction Ramps on Aircraft Dynamic Response, Michael Gerardi, APR Consultants Inc. Design and Restructure of Barranquilla Airport's Concrete Runway using Rubberized Asphalt and Geogrid Fabric with Nighttime Overlay Construction, Xavier Munoz, Grupo Aeroportuario del Caribe SAS	

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	The Impacts of Connected Vehicles on Fuel Consumption and Traffic Operation under Recurring and Nonrecurring Congestion, Arezo Samimi Abianeh, Mark Burris, and Alireza Talebpour, Texas A&M University; Kumares Sinha, Purdue University	SAE currently has over 55 active committees working across the passenger and commercial vehicle sectors on an expansive set of critical Connected and Automated Vehicle subjects. The session will highlight critical work.	Technology Study to Improve Driving Visual Cognition Distance in Highway Fog Area at Night, Jiangli Hu, Jianlong Chen, Chike Yuan, and Shuya Sun, Beijing University of Technology	Making a Difference in Transportation with INVEST, Constance Galloway, Federal Highway Administration	Use of 4-D Visual Software to Help Design Integrated Personal Rapid Transit Services, Christer Lindstrom, 4Dialog, Sweden		A Spatial Pavement Roughness Evaluation Method Based on Automated Vehicle Driving Comfort, Hongduo Zhao, Difei Wu, and Mengyuan Zeng, Tongji University	Planning and Engineering the Reconstruction of DFW International Airport Runway 17C-35C, George Vitas, George Vitas and Associates; James Pantina, DFW International Airport
6:00 PM to 8:00 PM	The ICTD 2018 Didi Awards Banquet & Francis C. Turner Lecture							
7:30 AM - 08:30 AM	Light Continental Breakfast in Exhibit Hall							
08:30 AM - 10:00 AM	State DOT Forum: Impacts of Connected & Autonomous Vehicles on Transportation & Development - Perspectives of Leaders from the Public Sector Kirk T. Stuedle, P.E., Director, Michigan DOT Roger Millar, Secretary of Transportation, Washington State DOT Carlos Braceras, P.E., Executive Director, Utah DOT Darran Anderson, Director of Strategy and Innovation, Texas State DOT							
10:00 AM - 10:30 AM	Networking/Coffee Break in the Exhibit Hall							
10:30 AM - 12:00 PM	Impacts of Emerging Technologies on Transportation & Development - A Modal Perspective Vincent Valdes, Associate Administrator for Research, Demonstration and Innovation, Federal Transit Administration (FTA) Dwight W. Clark, President, American Railway Engineering and Maintenance-of-Way Association (AREMA) John R. Dermody, Director, Office of Airport Safety and Standards, Federal Aviation Administration (FAA) - <i>Invited</i> Shallen Bhatt, President & CEO, ITS America - <i>Invited</i>							
12:00 PM - 1:30 PM	Buffet Lunch in Exhibit Hall							
1:30 PM - 3:00 PM	Enabling Technologies for Connected and Automated Vehicles	Applications of Artificial Intelligence & Machine Learning Tools to Solve Transportation Problems (TRB AB70)	Special Issues on Safety	Transportation & Land Use Planning	Impacts of Rail Transportation Systems	Airside Planning	Pedestrians to Connected Vehicles	Airport Construction Materials & New Technologies
	Temporal-Spatial Dimension Extension-based Autonomous Intersection Control Formulation for Autonomous Vehicles, Qiong Wu, Zhenning Li, Guohui Zhang, and Panos Prevedouras, University of Hawaii; Xiaoyue Liu, University of Utah	Description: This session presents various applications of artificial intelligence and machine learning tools to solve transportation problems associated with classification, optimization, and adaptation applications for identifying the type of secondary tasks in naturalistic driving data; determining the type of vehicle from point cloud data collected with LIDAR sensors; optimizing signalized intersections in connected/automated environments; and modeling individual route choice preferences.	Road User Behavior Survey to Identify Safety Issues of Elderly Drivers in Kansas, Sunanda Dissanayake and Sameera Koththigoda, Kansas State University; Jian John Lu, Tongji University	Travel Time Based Performance Measures to Assess the Effect of Crashes by Severity, Srinivas Pulugurtha and Synthia Tagar, University of North Carolina at Charlotte	Inter-City Rail Station Accessibility by Bus, Light Rail, Transit Network Company and Personal Rapid Transit, Peter Muller, ATRA	End-Around Taxiways—A Win-Win-Win: Reduced Aircraft Delays, Increased Safety, and Reduced Emissions, William Dunlay, WJDunlay Consulting, LLC; Hui Xu, The Port Authority of NY & NJ	Modeling Connected Vehicle Impacts on Traffic Mobility, Safety and Emission, Heng Wei and Ting Zuo, University of Cincinnati; Y. Jeffrey Yang, U.S. Environmental Protection Agency; Hao Liu, The University of California at Berkeley	Using Cellular Glass Foam as an EMAS Material, Ernie Heymsfield, University of Arkansas
	Connected Road Infrastructures with 360-degree LIDAR Sensors, Hao Xu, University of Nevada, Reno	Autonomous Vehicle Routing Optimization in a Competitive Environment: A Reinforcement Learning Application, Harith Abdulsattar, Haizhong Wang, Alireza Mostafaei, Oregon State University	Analyzing of Frequency and Severity of Motorcycle Crashes at Municipality of Anchorage, Alaska, Osama Abaza and Tanay-Datta Chowdhury, University of Alaska at Anchorage	Lessons Learned from Modeling the Evacuation of a Suburban University Campus, Ryan Fries, Karna Ghale, and Yan Qi, Southern Illinois University Edwardsville; Bryan Dirks, U.S. Army Corps of Engineers	Experiences and Lessons Learned from Chinese High Speed Rail Projects, Liang Gao, Beijing Jiaotong University, China	State of Use of New Technologies for Global Airport Airside Development and Operation, Vivek Khanna, WSP; Amiy Varma, North Dakota State University	Transportation Maintenance Operations Workforce Development; Challenges, Opportunities and Solutions, Dave Bergner, Monte Vista Associates	Next Generation Backfill Technologies for Rapid Airfield Pavement Repair, Mariely Mejias, Lulu Edwards, and Lyan Garcia, US Army Corps of Engineers
	Non-Signalized Intersections Control – a Collaborative Fault Tolerant Control Perspective, Hong Wang, Pacific Northwest National Laboratory, H M Abdul Aziz, Oak Ridge National Laboratory; Stanley Young, NREL	Key Lever Technology for Identification of Types or Secondary Tasks from Observed Driving Behavior Data: Application of Ensemble Tree Machine Learning Algorithms on SHRP2 NDS Data, Osama A. Osman and Sogand Karbalaieali, Louisiana State University; Sherif Ishak, University of Alabama at Huntsville; Mustafa Hajji, University of Southern Florida	Patterns and High Value Locations of Motorcycle Crashes in Florida, Lin Xiao and Wei Zhang, Federal Highway Administration	Effect of Land Use Developments on Travel Time Reliability, Srinivas Pulugurtha and Ajinkya Mane, University of North Carolina at Charlotte	Using Isochrone Maps to Assess and Visualize the Impact of California's High Speed Rail on Regional Accessibility, Juan Alejandro and Aly Tawfik, California State University, Fresno	Airport Collaborative Decision Making in the US – Is It Achievable?, Chris Oswald, ACI-NA	Evaluation of Pedestrian Gap Acceptance Behaviour at Uncontrolled Road Sections under Mixed Traffic Condition, Madhumita Paul, Indrajit Ghosh, and Pabitra Rajbongshi, Indian Institute of Technology (IIT) Roorkee	Application of Beam Bridging Filter in the Processing of Airport Pavement Profile Data, Qiang Wang, CSRA Inc.; Albert Larkin, Federal Aviation Administration
	A Driving Simulator Study: Resuming Control from Automated Vehicle under Different Conditions, Peiyang Chen, Feng Chen, Xiaoxiang Ma, Lin Zhang and Xiaodong Pan, Tongji University	Assessing Safety Impacts of Connected and Automated Vehicles under Cybersecurity Attacks, Brian Park and Lian Cui, University of Virginia		Housing Location and Commuting Mode Choices of University Students and Employees: An Application of Bivariate Probit Models, Naznin Sultana Daisy, Mohammad Hesam Hafezi, and Lei Liu, Dalhousie University; Hugh Millward, Saint Mary's University	Leveraging Shared Autonomous Electric Vehicles for First/Last Mile Mobility, Donna Chen, T. Zhang, and Javed Farhan, University of Virginia	Technological Advances for Sustainable development through Assessing Passenger Airline On-Time Performance in Developing Countries - A Case of Botswana, Adwole Oladele, Botswana International University of Science and Technology	Effect of Road Construction Projects on Travel Time Reliability, Srinivas Pulugurtha and Venu Madhav Kukkappalli, University of North Carolina at Charlotte	Hydronic Heated Pavement System Using Precast Concrete Pavement, Hesham Abdulla, Haili Ceylan, Sunghwan Kim, Peter Taylor, Kasthurirangan Gopalakrishnan, and Kristen Cetin, Iowa State University
		Implementation of Transfer Learning for Trailer Type Identification Using Side Fire LIDAR, Mecit Cetin, Reza Vatani Nezafer, and Olcay Sahin, Old Dominion University			Sensing, Visualizing, Understanding, and Enhancing the Last Mile of Urban and Metropolitan Freight, Vivek Sakhrani, CPCS Transcom			
03:00 PM - 03:30 PM	Networking Break							
3:30 PM - 05:00 PM	Cooperative Trucking Automation	Standards in Shared Mobility - Session by Society of Automotive Engineers (SAE)	Spatial Analysis	Bikes & Pedestrians	Recent Developments in Advanced Bus Transit Systems	Airport Terminal/Concourse Planning	Technology Applications for Airport Pavements	Advancement in Cement and Concrete Materials
	Leveraging Autonomy in Truck Platooning to Improve Freight Transportation Sustainability, Erman Gungor, Ruifeng She, Imad Al-Qadi, and Yanfeng Ouyang, University of Illinois at Urbana Champaign		Visualizing the Effect of a Crash Over Space and Time Using Historical Travel Time and Crash Data, Srinivas Pulugurtha, Venkata Duddu, and Kamalkannan Elangovan, University of North Carolina at Charlotte	Ride Quality for Bicycle Paths under Different Pavement Conditions, Hans De Backer, Pieter De Winne, Sarmad Zaman Rajper, and Zain Ul Abdin, Ghent University	Revolutionizing Transit: EV Bus Deployment Programs and Outcomes, Lauren Cochran, Proterra Inc.	State of Use of New Technologies for Global Airport Terminal Development and Operation, Amiy Varma, North Dakota State University; Vivek Khanna, WSP	Use and Impact of Pavement performance in Airfield Asset Management Strategy, Cinzia Maggiore and Gary Fitch, Jacobs	Impact of Coarse Aggregate Mineralogy on Coefficient of Thermal Expansion of Paving Concrete in New Mexico, Gauhar Sabih and Rafiqul Tarefder, University of New Mexico
	Life Cycle Cost Analysis of Flexible Pavement for Platooning of Connected and Autonomous Vehicles, Md Hoque and Qing Lu, University of South Florida	Increasingly available shared, on-demand m44:D48obility continues to transform the global transportation fabric. A consequence of the ever-growing and -evolving landscape of shared, on-demand mobility is the lack of consensus terms and definitions. Many of these terms are not consistently named, defined, or used in literature and practice. A commonly and consistently defined vocabulary is fundamental to facilitate understanding, adoption, and deployment of shared mobility. In recognition of this, SAE International is developing the first international standard in shared mobility, J3163 - Taxonomy and Definitions for Terms Related to Shared and Digital Mobility. It is anticipated that J3163 will be published in Summer/Fall 2018. J3163 is the first of many standards that will be developed by SAE's Shared and Digital Mobility Committee.	Analysis of Highway Crashes Investment Using Spatial Tracking Technology, Osama Abaza and Mahmoud Arafat, University of Alaska at Anchorage	Measuring Pedestrian Crossing Compliance Rate at High Pedestrian Crash Locations, Osama Abaza and Mahmoud Arafat, University of Alaska at Anchorage	Battery Electric Buses Proposed for Pittsburgh, David Wohlwill, Port Authority of Allegheny County	Billion Dollar Improvements at DCA: The New North Concourse and Secure National Hall, Gregg Wollard, Metropolitan Washington Airport Authority (MWAA)	Automated PCI Data Collection at Airports (Drones), Chaim Van Prooyen	Evaluation of Microcracking on Soil Cement Pavements, Zhong Wu and Yilong Liu, Louisiana Transportation Research Center (LTRC); Ferdous Intaj, Louisiana State University
	A Stochastic Optimal Control Approach for Real-time Routing of Connected Automated Vehicles, Xidong Pi and Zhen (Sean) Qian, Carnegie Mellon University; Xiaopeng Li, University of South Florida		Safe from Crime at Location-Specific Transit Facilities, Anne Moudon, Alon Bassok and Mingyu Kang, University of Washington	Pedestrian Perception in Pathway Facilities Improvement, Andyka Kusuma and Tri Tjahjono, Universitas Indonesia	Converting BRT to LRT: Recent Developments and Lessons Learned, Cliff Henke, WSP	Evaluating LAX Landside Planning and Constructability using BIM, Rodomir Lazic	Use of Aircraft Turn Movement Simulation Models to Optimize Taxiway Reconstruction Phasing, Richard Thuma and J. Huntley, Crawford, Murphy & Tilly, Inc.	Characterization of the Moisture Susceptibility of Cement-Stabilized Base Materials Using the Tube Suction Test, Mohammad Rashidi and Reza Ashtiani, University of Texas at El Paso
	Longitudinal Control Strategy of Platoon with Mixed Automated and Manually Driven Vehicles for Reducing Traffic Oscillations, Zhibin Li, Ye Li, Lu Xing, and Wei Wang, Southeast University				Right Sizing Infrastructure Projects: Mobility as a Service, Christopher Garlick, Toll Transactions	Assigning Values to Air Passenger Time Savings in Airport Terminal and Landside Projects, Geoff Gosling, Aviation System Consulting, LLC		Flexural Behavior of Rubberized Concrete for Application in Cold Regions, Osama Abaza, University of Alaska at Anchorage; Zaid Hussein, DOWL

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					Redefining the Service Level Benchmarking for Public Transport System in India, Rahul Tiwari and Kshama Puntambekar, School of Planning and Architecture, Bhopal; Purnima Parida, Central Building Research Institute Roorkee, India			
5:15 PM - 6:15 PM	T&D Board of Governors Town Hall (All Attendees Invited)							
6:30 PM - 7:30 PM	Young Members Session: "If I Could Tell You One Thing...": The Best Advice I Ever Received							
7:30 AM - 08:30 AM	Light Continental Breakfast							
8:30 AM - 10:00 AM	Behavior and Safety in Connected and Automated Traffic	Shared Mobility and Connected Automation	Highway Safety Manual/Signals	Sustainability Evaluation and Assessment	Challenges of Rail Transportation Systems	Innovative techniques for Infrastructure Resiliency	Freight Transportation Management and Data Innovations	Advanced Analysis and Application
	Distributed Computation based Cooperative Model Predictive Control for a Platoon Mixed with Connected and Autonomous Vehicles and Human-Drive Vehicles, Siyuan Gong, Purdue University; Lili Du, University of Florida	In-vehicle Time Adaptations to Use of Autonomous Vehicles, Ying Jiang and Yin Hai Wang, University of Washington	Impact of Part-Time Shoulder Use on Safety Through the Highway Safety Manual, Sean Coffey, Seri Park, and Leslie McCarthy, Villanova University	Undergraduate Courses and Senior Year Track on Sustainability in Civil Engineering, Panos Prevedouras and Lambros K. Mitropoulos, University of Hawaii at Manoa	ASCE T&D Rail Transportation Status and Issues Related to Short Line and Regional Railroads, Hai Huang, Penn State	SD Project Management Strategies for Complex Projects (SHRP2: R10): Lessons Learned!, Majed Al-Ghandour, North Carolina DOT	Investigating the Effects of Reserved Lanes for Commercial Truck Platooning on Congestion: Pennsylvania Turnpike Case Study, Corey Harper, Booz Allen Hamilton; Chris Hendrickson and Constantine Samaras, Carnegie Mellon University	Modeling and Validation of Asphalt Concrete Behavior in a Finite Element Framework, A. S. M. Rahman, Mesbah Ahmed, and Rafiqul Tarefder, The University of New Mexico
	Research on Lane-Changing Behavior in the Mixed Autonomous Vehicles and Human-Driving Vehicles Environment, Changmei Dongye, Jianjun Shi, and Zeyu Shi, Beijing University of Technology	Mass Transit – A Connected and Autonomous Vehicle Highway, Maniel Vineberg, Independent Consultant	Calibration of the Highway Safety Manual for Basic Freeway Segments in Kansas, Imalka Mataraga and Sunanda Dissanayake, Kansas State University	Metrics and Methods for Assessing Resilience Impacts from Integrated Above- and Below-ground Urban Infrastructure, Priscilla Nelson, Colorado School of Mines	Modeling Evolution of Freight Transportation as a System-of-Systems to Determine Adoption of Emerging Vehicle Technologies, Ana Guerrero de la Pena, Navindran Davendralingam, Ali Raz, Daniel Delaurentis, Gregory Shaver, and Neera Jain, Purdue University	Failure Probability Prediction of Pavement Alligator Cracking through Bayesian Parametric Survival Analysis with Markov Chain Monte Carlo Simulation, Xueqin Chen, Tongji University; Qiao Dong, Southeast University	Managing Reversible Lanes with Truck Arrival Information to Alleviate Gate Congestion at Smart Container Terminals, Yong Zhou and Ying-en Ge, Shanghai Maritime University	Factors Affecting the Compactability and Stability of Asphalt Concrete Mixes Containing High RAP Contents and WMA Technologies, Mohammed Alsailhi and Ahmed Faheem, Temple University
	Human-Like Autonomous Car-Following Model by Deep Deterministic Policy Gradient Reinforcement Learning, Meixin Zhu and Xuesong Wang, Tongji University; Yin Hai Wang, University of Washington	Estimating Future Travel Costs using Shared Autonomous Vehicle (SAV) Systems, Linda Lim and Aly Tawfik, California State University, Fresno	Improving the Safety of Left-Turn Operations at Signalized Intersections for High-Risk Groups, Ahmed Abdel-Rahim and Angel Gonzalez, University of Idaho	Economic Assessment of the Use of Renewable Fuels in a Passenger Car, Jérémy Rimbon, Wolf Fichtner, Frank Schultmann, Rimbon Rimbon, and David Hechler, French-German Institute for Environmental Research	Impact of Underground Rail Construction on Ongoing Operations and Existing Infrastructure, Shunhua Zhou, Tongji University	Development of Low-Shrinkage Rapid Set Composite and Simulation of Shrinkage Distress in Concrete Patch Repair, Aseel Mansi, Haider Abdulhameed, and Yook-Kong Yong, Rutgers University	Data-driven Innovations in a Regional Freight Planning Model: Accounting for Heterogeneous Stakeholders' Preferences, Dan Liu and Yin Hai Wang, University of Washington	Effects of Pores and Oxidative Aging on the Nanomechanical Behavior of Asphalt Concrete, Hasan Faisal, Mohiuddin Ahmad, and Rafiqul Tarefder, University of New Mexico
	Crashes in Unsignalized Intersections and the Related Collision Avoidance Strategy of Intelligent Vehicles, Quan Yuan, Xunjia Zheng, Jianqiang Wang, and Yibing Li, Tsinghua University		Impact of Countdown Device on Drive Behavior Behavior at Signalized Intersection, Yulong He, Beijing University of Technology; Xiaoduan Sun, University of Louisiana	Evaluating the Resilience of Transportation Infrastructures to Extreme Weather Events using Soil-Moisture Active Passive Satellite Data, Simon Packman, Sonya Lopez, and Mehran Mazari, California State University Los Angeles	Sensing, Visualizing, Understanding, and Enhancing the Last Mile of Urban and Metropolitan Freight, Vivek Sakhrani, CPCS Transcom	Frost Heave Mitigation without Excavation and Minimal Traffic Disruption Ron Youngman and Roy Mathis, Concrete Stabilization Technologies	Potential for Crowdsourcing in New York, Alison Conway and Mahdieh Allahviranloo, City College of New York	Part-Time Shoulder Use Partial Depth Paved Shoulder Impact Study: An Interstate 476 Case Study, Sean Coffey, Seri Park, and Leslie McCarthy, Villanova University
								Assessment and Calibration of Simplified Hirsch Model to Predict Complex Modulus of Superpave Asphalt Concrete, A. S. M. Rahman, and Rafiqul Tarefder, The University of New Mexico
10:00 AM - 10:30 AM	Networking/Coffee Break							
10:30 AM - 12:00 PM	From Autonomous Vehicles to Autonomous Traffic	Policy and Legal Implications of Connected and Automated Vehicles	Roadside Hardware for Safety	Data Collection	Integration of Bike, Transit Ride Sharing, and Pedestrian Systems and Facilities	Pittsburgh International Airport Program	Signals and Roundabouts	Impacts on Performance of Pavements
	Optimal Variable Speed Limit Control for the Mixed Traffic Flows in a Connected and Autonomous Vehicle Environment, Wei Fan and Miao Yu, The University of North Carolina at Charlotte	Removing the Legal Roadblocks to Highly Autonomous Vehicles: The Interplay of State and Federal Laws Regarding HAVs, Christine Soares, Esquire, Member, Cozen O'Connor	Meta-Analysis of the Risk of Fatal and Incapacitating Injury in Tangent W-Beam Guardrail Terminal Collisions, Malcolm Ray and Christine Carrigan, RoadSafe, LLC		Focusing on the As-Built Environment to Properly Design Integrated Transit Ride Sharing Services and Systems, Shannon Sanders McDonald, Southern Illinois University	Description: This session is designed to provide background and preview to the participants of the Pittsburgh Airport tour. Attendees not participating in the airport tour are welcome to attend.	Alum Creek Drive at Groveport Road – Flyover Bridge with Double Roundabouts, William Crosier, Franklin County Engineer's Office	Impact of Geogrids on Highway Pavement Performance, Mark Wayne, Tensar International; Jayhyun Kwon, Kennesaw State University
	Reducing Traffic Emissions using Sparsely Distributed Autonomous Vehicles in the Flow, Raphael Stern and Raphael Work, University of Illinois at Urbana-Champaign	Sharing Connected Vehicle Infrastructure Between Governments and Internet Service Providers, Alexandre Ligo and John Peha, Carnegie Mellon University	A Probability-Based Approach for Assessment of Concrete Median Barriers, Qian Wang, Manhattan College; Hongbing Fang, University of North Carolina at Charlotte; Hanfeng Yin, Hunan University, China		Trails That Transform: The Economic Impact of Bicycle Tourism, John Catoe and Blake Sanders, Alta Planning + Design	Pittsburgh International Airport Modernization Airport, Tom Woodrow	Influence of Signal Countdown Timers on Pedestrian Movements at Signalized Intersections, Madhumita Paul, Indrajit Ghosh, and Sumit Kumar, Indian Institute of Technology (IIT) Roorkee	Geospatial Correlation of Intelligent Compaction Measurement Values With In-Situ Spot Testing for Quality Management of Compacted Geomaterials, Luis Lemus and Aria Fathi, University of Texas at El Paso; Afshin Gholami, Cesar Trado, and Soheil Nazarian, Center of Transportation of Infrastructure System (CTIS); Mehran Mazari, California State University Los Angeles
	A Mixed Traffic Capacity Analysis and Lane Management Model for Connected Automated Vehicles: A Markov Chain Method, Amir Ghiasi, Omar Hussain, and Xiaopeng Li, University of South Florida; Zhen (Sean) Qian, Carnegie Mellon University	Urban Arterial Work Zones for Traditional and Autonomous Vehicle Environments, Amiy Varma, North Dakota State University	Assessing the Field Performance of W-Beam Terminals in Washington State, Malcolm Ray and Christine Carrigan, RoadSafe, LLC	Special session with invited speakers	Impact of Ride-Sharing and Autonomy on Urban Mobility Behavior and Vehicle Stock, Suhridd Deshmukh and Rich Roth, MIT	Pittsburgh International Airport Deicing Pad Reconstruction, Jeff Bezak		Performance Evaluation of the Cement Stabilized Reclaimed Materials for Use in Pavement Foundations, Mohammad Rashidi and Reza Ashtiani, University of Texas at El Paso
	Traffic Signal Timing Optimization with Connected Vehicles, Wan Li and Xuegang (Jeff) Ban, University of Washington	Like or Dislike? Autonomous Vehicles for Chinese Road Users, Quan Yuan and Shengqin Tang, Tsinghua University			Exploring the Economic, Environmental, and Travel Implications of Changes in Parking Choices Due to Driverless Vehicles, Corey Harper, Booz Allen Hamilton; Chris Hendrickson and Constantine Samaras, Carnegie Mellon University		Investigating the Prospect of Reclaimed Asphalt Pavement (RAP) as Stabilized Base in the Context of Bangladesh, Mohammed Islam and Md Tasfiqur Rahman, Military Institute of Science and Technology; Mohammad Hossain, Bradley University	
					Estimation of Origin-Destination Matrix Using Public Transit Smart Card Transaction Data, Wei Fan and Zhen Chen, University of North Carolina at Charlotte			
					Investigating Average Passenger Wait Time and Wait Time Behavior as a Function in Bus Line Headway, Kelvin Akataobi and Aly Tawfik, California State University			
12:00 PM - 01:30 PM	Lunch on Own							
1:30 PM - 05:00 PM	Three Rivers Boat Tour: A Guide to Pittsburgh's Bridges and Development from the Water CMU Lab and Pittsburgh Smart Corridor Tour Port Authority Traffic Facility Transit Tour via Light Rail Pittsburg International Airport Tour							