

TRANSPORTATION ENGINEERING AND PLANNING AT THE UNIVERSITY OF TEXAS AT AUSTIN

THE 91st ANNUAL MEETING OF THE TRANSPORTATION RESEARCH BOARD: JANUARY 2012 LONGHORN PRESENTATION SCHEDULE

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Workshops

Sunday, January 22, 2012

Event No.	Participants	Time	Location	Title
104	Bhasin, Amit, presiding	9:00AM-12:00PM	Marriott	Doctoral Student Research in Asphalt Materials and Mixtures
116	Loftus-Otway, Lisa	9:00AM-12:00PM	Omni	Integrated Public and Private Sector Freight Rail Planning
132	Ruiz Juri, Natalia	9:00AM-12:00PM	Hilton	Pelling Back the Layers of Dynamic Traffic Assignment Modeling Approaches
133	Bhat, Chandra	9:00AM-12:00PM	Hilton	Emerging Estimation Methods for Heterogeneity and Spatial-Social-Temporal Interactions
149	Sidharthan, Raghuprasad	1:00PM-5:00PM	Hilton	On Integrating Models of Household Vehicle Fleet Composition and Evolution with Activity Based Travel Models for Improved Transportation Energy and Green House Gas Emissions Analysis
149	Jiang, Nan	1:00PM-5:00PM	Hilton	Constrained Traffic Equilibrium: Impact of Electric Vehicles
152	Helwig, Todd	1:30PM-4:30PM	Marriott	Bracing Details for Steel Bridges with Skewed Supports

Thursday, January 26, 2012

Event No.	Participants	Time	Location	Title
763	Bhat, Chandra, presiding	8:00AM-12:00PM	Hilton	Building the 21st Century Workforce: State of the Research in Assessing Effectiveness of Transportation Programs Aimed at Knowledge and Skill Building and Enhancement

Committee Meetings

Sunday, January 22, 2012

Committee	Participants	Time	Location	Title
A0010	Prozzi, Jorge A., presiding	1:30PM-3:30PM	Hilton	International Activities Committee
A0010	Prozzi, Jorge A., presiding	7:00PM-8:30PM	Hilton	International Participants' Reception

Monday, January 23, 2012

Committee	Participants	Time	Location	Title
A0000	Walton, C. Michael, presiding	10:15AM-12:00PM	Marriott	Transportation Research Record Publication Board
AFK50(1)	Bhasin, Amit, presiding	7:30PM-10:00PM	Marriott	Advanced Models to Understand Behavior and Performance of Asphalt Mixtures Subcommittee

Tuesday, January 24, 2012

Committee	Participants	Time	Location	Title
ABG20	Bhat, Chandra R., presiding	1:30PM-5:30PM	Hilton	Transportation Education and Training Committee
AFB60	Barrett, Michael	7:30PM-9:30PM	Marriott	Water Quality Subcommittee

Wednesday, January 25, 2012

Committee	Participants	Time	Location	Title
AFF20	Fasl, Jeremiah David Helwig, Todd Wood, Sharon L. Samaras, Vasilis Reichenbach, Matt	8:00AM-12:00PM	Marriott	Use of Strain Data to Estimate Remaining Fatigue Life in a Fracture-Critical Bridge

Poster Sessions

Monday, January 23, 2012

<i>Event No.</i>	<i>Participants</i>	<i>Time</i>	<i>Location</i>	<i>Title</i>
249	Motamed, Arash	8:30AM-10:15AM	Omni	Time-Efficient Genetic Algorithm Layer Modulus Backcalculation Method for Flexible Pavements
286	Duthie, Jennifer	10:45AM-12:30PM	Marriott	Ordered Probit Regression Analysis of Factors Influencing Bicycle-Vehicle Interactions on Urban Roadways
295	Kockelman, Kara	10:45AM-12:30PM	Omni	Tracking Transportation and Industrial Production Across a Nation: Application of the RUBMRIO Model for U.S. Trade Patterns
346	Hwang, Jaewon Zhang, Zhanmin	2:00PM-3:45PM	Marriott	Development of Conceptual Framework for District Four-Year Pavement Management Plan: Implementation of Network-Level Project Screening Process
356	Xiong, Xiaoxia Kockelman, Kara	2:00PM-3:45PM	Hilton	The Cost of Right-of-Way Acquisition: Recognizing the Impact of Condemnation via a Switching Regression Model
405	Wang, Li Kolahdoozan, Sami Seedah, Dan Leite, Fernanda Machemehl, Randy B.	4:15PM-6:00PM	Marriott	Enhanced Worker Safety in Very Short Duration Work Zone Operations: State of Practice and Recommendations
409	Banerjee, Ambarish Prozzi, Jolanda P. Prozzi, Jorge A.	4:15PM-6:00PM	Omni	Assessment of Pavement Damage due to Movement of Wind Turbine Components on Texas Highway Infrastructure
409	Murphy, Mike Zhang, Zhanmin Prozzi, Jorge A.	4:15PM-6:00PM	Omni	Investing in the Future: Analysis of TxDOT 1547 Over-Axle-Weight Tolerance Permits
431	Mills, Alison Duthie, Jennifer Machemehl, Randy B.	7:30PM-9:30PM	Marriott	Entry-Lane Capacity Analysis of Roundabouts in Texas Using VISSIM, SIDRA, and the Highway Capacity Manual
433	Jin, Jing	7:30PM-9:30PM	Marriott	Incorporating Looking-Back Behavior into Cellular Automaton Model

Tuesday, January 24, 2012

<i>Event No.</i>	<i>Participants</i>	<i>Time</i>	<i>Location</i>	<i>Title</i>
492	Nezamuddin, N., presiding	8:30AM-10:15AM	Marriott	Regional Transportation Systems Management and Operations
496	Zhang, Ti	8:30AM-10:15AM	Omni	Discrete Time Formulation for Assignment Problem Applied in Cross-Docking Facilities
499	Castro, Marisol Bhat, Chandra R.	8:30AM-10:15AM	Hilton	Multiple Discrete-Continuous Choice Model of Household Energy Reduction Across Multiple Sectors Using Priority Evaluator Data
537	Chen, T. Donna Kockelman, Kara	10:45AM-12:30PM	Marriott	The Roles of Vehicle Footprint, Height, and Weight in Crash Outcomes: Application of Heteroscedastic Ordered Probit Model
541	Tuttle, David P. Kockelman, Kara	10:45AM-12:30PM	Hilton	Electrified-Vehicle Technology Trends, Infrastructure Implications, and Cost Comparisons
541	Khan, Mobashwir Kockelman, Kara	10:45AM-12:30PM	Hilton	Predicting the Market Potential of Plug-in Electric Vehicles Using Multiday GPS Data
579	Banerjee, Ambarish Bhasin, Amit Prozzi, Jorge A.	2:00PM-3:45PM	Marriott	Characterizing Asphalt Emulsions Using Electrokinetic Techniques
638	Prozzi, Jorge A. Manuel, Lance	4:15PM-6:00PM	Omni	Framework for Reliability Analysis of Pavement Structures Using Mechanistic-Empirical Pavement Design Guide
664	Seedah, Dan Harrison, Robert	4:15PM-6:00PM	Omni	Truckers and Toll Use: Case Study of Texas SH 130

Wednesday, January 25, 2012

<i>Event No.</i>	<i>Participants</i>	<i>Time</i>	<i>Location</i>	<i>Title</i>
708	Wang, Yiyi Kockelman, Kara	8:30AM-10:15AM	Marriott	The Impact of Weight Matrices on Parameter Estimation and Inference: A Case Study of Binary Response Using Land Use Data
708	Wu, Hui Zhang, Zhanmin	8:30AM-10:15AM	Marriott	Framework for Developing Road Risk Indices Using Quantile Regression-Based Crash Prediction Model
708	Castro, Marisol Paleti, Rajseh Bhat, Chandra R.	8:30AM-10:15AM	Marriott	Latent Variable Representation of Count Data Models to Accommodate Spatial and Temporal Dependence: Application to Predicting Crash Frequency at Intersections
710	Selby, Brent Kockelman, Kara	8:30AM-10:15AM	Hilton	Microsimulating Automobile Markets: Evolution of Vehicle Holdings and Vehicle-Pricing Dynamics
711	Castro, Marisol Bhat, Chandra R.	8:30AM-10:15AM	Hilton	Accommodating Multiple Constraints in Multiple-Discrete Continuous Extreme Value Choice Model
711	Bhat, Chandra R. Paleti, Rajseh	8:30AM-10:15AM	Hilton	Street Networks, Mode of Travel, and Sense of Community in a University Town
711	Khan, Mubassira Paleti, Rajseh Bhat, Chandra R.	8:30AM-10:15AM	Hilton	Joint Household-Level Analysis of Work Arrangement Choices of Individuals
711	Paleti, Rajseh Bhat, Chandra R.	8:30AM-10:15AM	Hilton	Joint Tour-Based Model of Tour Complexity, Passenger Accompaniment, Vehicle Type Choice, and Tour Length
711	Zhang, Ming Zhang, Wenjia Bai, Xiao	8:30AM-10:15AM	Hilton	Contextual Effects of Land Use on Mode Choice for Nonwork Travel: Multilevel Multinomial Logit Modeling Analysis
712	Singh, Palvinder Paleti, Rajseh Bhat, Chandra R.	8:30AM-10:15AM	Hilton	On Modeling Telecommuting Behavior: Option, Choice, and Frequency
713	Seraj, Saamiya Sidharthan, Raghuprasad Bhat, Chandra R.	8:30AM-10:15AM	Hilton	Parental Attitudes Toward Children Walking and Bicycling to School: Multivariate Ordered Response Analysis
714	Xie, Chi Kockelman, Kara	8:30AM-10:15AM	Hilton	Two-Stage Equilibrium Travel Demand Model for Sketch Planning
714	Bhat, Chandra R. Paleti, Rajseh	8:30AM-10:15AM	Hilton	Simulator of Activities, Greenhouse Emissions, Networks, and Travel in Southern California
714	Ferdous, Nazneen Bhat, Chandra R.	8:30AM-10:15AM	Hilton	Spatial Panel Ordered-Response Model with Application to Analysis of Urban Land Use Development Intensity Patterns
714	Vyas, Gaurav Paleti, Rajseh Bhat, Chandra R.	8:30AM-10:15AM	Hilton	A Joint Vehicle Holdings (Type and Vintage) and Primary Driver Assignment Model with an Application for California
714	Kortum, Katherine Paleti, Rajseh Bhat, Chandra R.	8:30AM-10:15AM	Hilton	A Joint Model of Residential Relocation Choice and Underlying Causal Factors
774	Machemehl, Randy B. Gemar, Mason David	2:45PM-4:30PM	Hilton	Stochastic Dynamic Programming Approach for Equipment Replacement Optimization with Probabilistic Vehicle Utilization
774	Boyles, Stephen D.	2:45PM-4:30PM	Hilton	Exact Label-Correcting Algorithm for Online Shortest-Path Problem in Cyclic Transportation Networks
774	Nezamuddin, N	2:45PM-4:30PM	Hilton	Improving Efficiency of Dynamic Traffic Assignment Through Computational Methods Based on Combinatorial Algorithm
774	Jiang, Nan Xie, Chi	2:45PM-4:30PM	Hilton	Weight-Constrained Traffic Assignment: Formulation and Algorithm
774	Kumar, Roshan	2:45PM-4:30PM	Hilton	Heuristic Scheme for Heterogeneous Vehicle Routing Problem on Trees Based on Generalized Assignment and Bin-Packing Upper Bounds

Conference Sessions

Monday, January 23, 2012

<i>Event No.</i>	<i>Participants</i>	<i>Time</i>	<i>Location</i>	<i>Title</i>
214	Zhang, Zhanmin Hwang, Jaewon	8:00AM-9:45AM	Omni	Pavement Structural Evaluation at Network Level Using Falling-Weight Deflectometer
252	Prozzi, Jolanda P., presiding	10:15AM-12:00PM	Marriott	Best Papers from Tenth International Conference on Low-Volume Roads, 2011
267	Zhu, Jinying	10:15AM-12:00PM	Omni	Comparison of Nondestructive Testing Methods for Assessment of a Concrete Bridge Deck
328	Bhat, Chandra R., presiding	1:30PM-3:15PM	Hilton	Alternative Pedagogical Strategies and Tools for Effective Learning
374	Helwig, Todd, presiding	3:45PM-5:30PM	Omni	Analysis, Performance, and Behavior of Fracture-Critical Steel Bridge Systems
385	Bhat, Chandra R. Sidharthan, Raghuprasad	3:45PM-5:30PM	Hilton	New Approach to Specify and Estimate Nonnormally Mixed Multinomial Probit Models
393	Layzell, Anthony	3:45PM-5:30PM	Hilton	How Employers View Traffic Congestion: Results of a National Survey
427	Barrett, Michael, presiding	7:30PM-9:30PM	Marriott	Managing Construction Site Stormwater Runoff
427	Rounce, David Lawler, Desmond Barrett, Michael	7:30PM-9:30PM	Marriott	Reducing Turbidity of Construction Site Runoff: Coagulation with Polyacrylamide
441	Hutson, Nathan Harrison, Robert	7:30PM-9:30PM	Omni	Analysis of Current and Emerging Drayage Practices
443	Tonon, Fulvio	7:30PM-9:30PM	Omni	Rapid Inspection of Tunnel Concrete Linings
448	Sidharthan, Raghuprasad Bhat, Chandra R.	7:30PM-9:30PM	Hilton	Incorporating Spatial Dynamics and Temporal Dependency in Land Use Change Models
453	Jiang, Nan Xie, Chi	7:30PM-9:30PM	Hilton	Path-Constrained Traffic Assignment: Model and Algorithm
453	Nezamuddin, N.	7:30PM-9:30PM	Hilton	Improving Efficiency of Dynamic Traffic Assignment Through Computational Methods Based on Combinatorial Algorithm

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458	Banerjee, Ambarish Prozzi, Jolanda P. Prozzi, Jorge A.	8:00AM-9:45AM	Marriott	Evaluating the Impact of Natural Gas Developments on Highways: Texas Case Study
470	Buddhavarapu, Prasad Smit, Andre de Fortier Prozzi, Jorge A.	8:00AM-9:45AM	Omni	Influence of Pavement Condition on Crash-Injury Severity
508	Murphy, Mike Zhang, Zhanmin Prozzi, Jorge A. Yildirim, Yetkin	10:15AM-12:00PM	Marriott	Peer State Assessment of Texas Department of Transportation
529	Prozzi, Jorge A., presiding	10:15AM-12:00PM	Hilton	International Transportation Research and Resources
544	O'Brien, William Gau, Pierre Schmeits, Cameron Goyat, Jean Khwaja, Nabeel	1:30PM-3:15PM	Marriott	Benefits of 3D/4D CAD Model Applications for Constructability Review in Transportation Projects
627	Boyles, Stephen D.	3:45PM-5:30PM	Hilton	Exact Label-Correcting Algorithm for Online Shortest-Path Problem in Cyclic Transportation Networks
660	Zhang, Zhanmin	7:30PM-9:30PM	Omni	Methodological Framework for Minimizing Impact of Budget Fluctuations on Highway Maintenance Programs
669	Bhat, Chandra R. Paleti, Rajesh Sidharthan, Raghuprasad	7:30PM-9:30PM	Hilton	Household-Level Activity Pattern Generation Model: Simulator of Activities, Greenhouse Emissions, Networks, and Travel in Southern California

Wednesday, January 25, 2012

<i>Event No.</i>	<i>Participants</i>	<i>Time</i>	<i>Location</i>	<i>Title</i>
674	Rached, Marc Fowler, David W.	8:00AM-9:45AM	Marriott	Evaluation of Polish Resistance of Fine Aggregates in Portland Cement Concrete Pavements
695	Fagnant, Daniel J. Kockelman, Kara	8:00AM-9:45AM	Hilton	Transportation Project Outcomes Under Uncertainty: Examination of Benefit-Cost Ratios and Other Impacts
715	Bhasin, Amit	10:15AM-12:00PM	Marriott	Surface Energy Characteristics of Natural Minerals and Their Impact on Aggregate-Bitumen Bond Strengths and Asphalt Mixture Durability
719	Machemehl, Randy B. Gemar, Mason David	10:15AM-12:00PM	Marriott	Equipment Replacement Optimization, Part II. Dynamic Programming-Based Optimization
734	Ferdous, Nazneen Bhat, Chandra R.	10:15AM-12:00PM	Hilton	Comparison of Four-Step Versus Tour-Based Models in the Context of Predicting Travel Behavior Before and After Transportation System Changes
734	Bhat, Chandra R. Ferdous, Nazneen	10:15AM-12:00PM	Hilton	Comparing Aggregate Trip-Based and Disaggregate Tour-Based Travel Demand Models: Highway Results
734	Bhat, Chandra R. Paleti, Rajesh Sidharthan, Raghuprasad	10:15AM-12:00PM	Hilton	Application of Socioeconomic Model System for Activity-Based Modeling: Experience from Southern California
763	Jin, Jing	2:30PM-4:00PM	Hilton	Wireless Communication Simulation Model for Dynamic Cellular Handoff-Based Traffic Monitoring Systems: Framework and Evaluation

Thursday, January 26, 2012

<i>Event No.</i>	<i>Participants</i>	<i>Time</i>	<i>Location</i>	<i>Title</i>
801	Machemehl, Randy B. Gemar, Mason David Brown, Leonard	8:00AM-9:45AM	Hilton	Stochastic Dynamic Programming Approach for Equipment Replacement Optimization with Probabilistic Vehicle Utilization
801	Kumar, Roshan	8:00AM-9:45AM	Hilton	Heuristic Scheme for Heterogeneous Vehicle Routing Problem on Trees Based on Generalized Assignment and Bin-Packing Upper Bounds
806	Palvadi, Sundeep Bhasin, Amit	10:15AM-12:00PM	Marriott	Method to Quantify Healing in Asphalt Composites Using Continuum Damage Approach