

UTRC at

TRB 2013

January 13–17, 2013

UNIVERSITY TRANSPORTATION RESEARCH CENTER - REGION 2

**Papers and Presentations  
by Date and Time**



University Transportation Research Center - Region 2

**THIS DOCUMENT ASSEMBLES THE SESSIONS IN WHICH UTRC FACULTY AND STAFF WILL BE PRESENTING AT THE TRANSPORTATION RESEARCH BOARD (TRB) 92ND ANNUAL MEETING.**

**THE MEMBER INSTITUTIONS OF THE UNIVERSITY TRANSPORTATION RESEARCH CENTER ARE:**

City University of New York (CUNY)  
Clarkson University (Clarkson)  
Columbia University (Columbia)  
Cornell University (Cornell)  
Hofstra University (Hofstra)  
New Jersey Institute of Technology (NJIT)  
New York University (NYU)  
Polytechnic Institute of NYU (Poly)  
Rensselaer Polytechnic Institute (RPI)  
Rochester Institute of Technology (RIT)  
Rowan University (Rowan)  
Rutgers University (Rutgers)  
State University of New York (SUNY)  
Stevens Institute of Technology (Stevens)  
Syracuse University (SU)  
The College of New Jersey (TCNJ)  
University of Puerto Rico - Mayagüez (UPRM)

**Please note that the sessions are listed by date and time.**

# Sunday, January 13, 2013

**Event Title:** Signalized Intersections Subcommittee, AHB40(3.1)  
**Event Date:** Sunday, January 13, 2013 8:00AM - 9:15AM  
**Event Location:** Marriott, Park Tower Suite 8222

**Presiding Officers:** Elena S. Prassas, Polytechnic Institute of New York University, presiding

**Sponsored By:** Highway Capacity and Quality of Service (AHB40)

**Event Number:** Workshop 100  
**Event Title:** State of the Practice in Ground Tire Rubber-Modified Asphalt  
**Event Date:** Sunday, January 13, 2013 8:30AM - 12:00PM  
**Event Location:** Marriott, Salon 1

**Presiding Officers:** John A. D'Angelo, D'Angelo Consulting, LLC, presiding  
Harold R. Paul, Louisiana Department of Transportation and Development, presiding  
Delmar R. Salomon, Pavement Preservation Systems, LLC, presiding  
John E. Haddock, Purdue University, presiding

**Sponsored By:** General Issues in Asphalt Technology (AFK10)  
Characteristics of Asphalt Materials (AFK20)  
Characteristics of Nonasphalt Components of Asphalt Paving Mixtures (AFK30)

**Event Description:** This workshop provides an overview of ground tire rubber use in asphalt. Rubberized asphalt concrete (RAC) was used in the mid-1960s, with reported benefits of reduction in rutting and fatigue, reflective cracking, noise, and environmental impact. Polymer costs have made RAC a cost-effective option for many highway agencies. Presentations outline current practices, including field and terminal blends, with discussion of new developments for RAC PG-type specifications.

**Presentations:** Why Ground Tire Rubber?  
*Thomas A. Bennert, Rutgers University, presenter*

**Event Number:** Workshop 119  
**Event Title:** Introduction to Freight for New and Young Members  
**Event Date:** Sunday, January 13, 2013 9:00AM - 12:00PM  
**Event Location:** Shoreham, Ambassador

**Presiding Officers:** Alison J. Conway, City College of City University of New York, presiding  
Daniel Hackett, Hackett Associates, presiding  
Rebekah L. Karasko, North Central Texas Council of Governments, presiding  
Yi Lin Pei, Cambridge Systematics, Inc., presiding

**Sponsored By:** Young Members Council (YMC) (A0040T)

**Event Description:** Aimed at new and young TRB participants and any professionals interested in improving freight knowledge, this workshop features two expert panels. In the first panel, representatives from MPOs with varying resources available for freight planning speak about incorporating freight into the regional planning process. The second panel features industry experts discussing the importance of planning for freight needs and the planning challenges unique to freight.



Sunday, January 13, 2013

**Event Number:** Workshop 124  
**Event Title:** Big Data Informatics: Innovations in Mining Structured and Unstructured Information for Mobility Decision Making  
**Event Date:** Sunday, January 13, 2013 9:00AM - 12:00PM  
**Event Location:** Hilton, Jefferson West  
**Presiding Officers:** Piyushimita (Vonu) Thakuriah, University of Illinois, Chicago, presiding  
Harvey J. Miller, University of Utah, presiding  
**Sponsored By:** Urban Transportation Data and Information Systems (ABJ30)  
Geographic Information Science and Applications (ABJ60)  
Visualization in Transportation (ABJ95)  
**Presentations:** **Mining Secondary Incidents on Freeways Using Archived Sensor Data**  
*Hong Yang, Rutgers University, presenter*

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**Event Title:** Urban Streets Subcommittee AHB40(3.3)  
**Event Date:** Sunday, January 13, 2013 11:00AM - 12:15PM  
**Event Location:** Marriott, Park Tower Suite 8222  
**Presiding Officers:** Janice R. Daniel, New Jersey Institute of Technology, presiding  
**Sponsored By:** Highway Capacity and Quality of Service (AHB40)

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**Event Title:** Planning and Preliminary Engineering Subcommittee, AHB40(4.1)  
**Event Date:** Sunday, January 13, 2013 1:30PM - 2:45PM  
**Event Location:** Marriott, Park Tower Suite 8226  
**Presiding Officers:** Frederick Andrew Wolfe, SUNYIT, presiding  
**Sponsored By:** Highway Capacity and Quality of Service (AHB40)

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**Event Number:** Workshop 154  
**Event Title:** Enhancing the Durability of Asphalt Pavements  
**Event Date:** Sunday, January 13, 2013 1:30PM - 4:30PM  
**Event Location:** Marriott, Salon 1  
**Presiding Officers:** Frank Fee, NuStar Asphalt Refining, LLC, presiding  
**Sponsored By:** Flexible Pavement Construction and Rehabilitation (AFH60)  
General Issues in Asphalt Technology (AFK10)  
Characteristics of Asphalt-Aggregate Combinations to Meet Surface Requirements (AFK40)  
Characteristics of Asphalt Paving Mixtures to Meet Structural Requirements (AFK50)  
**Event Description:** The past several years have seen a number of significant advances in asphalt materials and their use. This workshop focuses on new design and construction approaches for extending pavement life while also improving its sustainability, including the use of new materials, methods of mix analysis, and cracking models, coupled with specific construction techniques that can significantly increase the pavement life. Validation of these approaches will be presented.  
**Presentations:** **Field Validation of Materials and Concepts**  
*Thomas A. Bennert, Rutgers University, presenter*



Sunday, January 13, 2013

**Event Number:** Workshop 167  
**Event Title:** Nondestructive Testing Automation: Combined Methods and Data Fusion  
**Event Date:** Sunday, January 13, 2013 1:30PM - 4:30PM  
**Event Location:** Marriott, Washington B4

**Presiding Officers:** Shane D Boone, Federal Highway Administration, presiding  
Parisa Shokouhi, Federal Institute for Materials Research and Testing, Germany, presiding

**Sponsored By:** Field Testing and Nondestructive Evaluation (NDE) of Transportation Structures (AFF40)

**Event Description:** This workshop discusses technologies for the nondestructive evaluation of transportation structures, focusing on advancing methodologies that involve automated data collection, combination of multiple technologies, and data fusion. This session will interest researchers and practitioners concerned with the condition assessment, maintenance, and preservation of infrastructure.

**Presentations:** **Automation of Multiple Nondestructive Evaluation Technologies for Assessment and Condition Rating of Concrete Bridge Decks**  
*Nenad Gucunski, Rutgers University, presenter*

**Event Number:** Workshop 175  
**Event Title:** Assessing the Future of Freight: Energy and Environmental Modeling in the Freight Sector  
**Event Date:** Sunday, January 13, 2013 1:30PM - 4:30PM  
**Event Location:** Hilton, Monroe  
**Presiding Officers:** James J. Winebrake, Rochester Institute of Technology, presiding  
James J. Corbett, University of Delaware, presiding

**Sponsored By:** Transportation and Air Quality (ADC20)  
Marine Environment (AW030)  
Transportation Energy (ADC70)

**Event Description:** This workshop responds to the growing need that researchers and practitioners have in understanding the energy and environmental impacts of goods movement. The freight sector is a growing component of transportation energy use and emissions, and new models are required to quantify, assess, and mitigate these impacts. Participants will learn about new analytical tools, models, and applications related to goods movement, energy use, and the environment.

**Presentations:** **Welcome and Overview: Dimensions of the Community of Practice of Freight Energy and Environmental Modelers**  
*James J. Corbett, University of Delaware, presenter*  
*James J. Winebrake, Rochester Institute of Technology, presenter*

**Geospatial Intermodal Freight Transportation Model: Case Studies on Use of Geospatial Network Optimization for Evaluating Performance Trade-offs in the Freight Sector**  
*James J. Corbett, University of Delaware, presenter*  
*James J. Winebrake, Rochester Institute of Technology, presenter*



Sunday, January 13, 2013

**Event Title:** Freight Systems and Marine Group Young Members Council Meeting  
**Event Date:** Sunday, January 13, 2013 5:00PM - 7:00PM  
**Event Location:** Shoreham, Capitol

**Presiding Officers:** Alison J. Conway, City College of City University of New York, presiding

**Sponsored By:** Freight Systems (AT000)  
Marine (AW000)

**Event Title:** Joint Meeting of the Freight Systems and Marine Group Executive Boards  
**Event Date:** Sunday, January 13, 2013 7:00PM - 9:00PM  
**Event Location:** Shoreham, Forum

**Presiding Officers:** Peter F. Swan, Pennsylvania State University, Harrisburg, presiding  
Thomas H. Wakeman, Stevens Institute of Technology, presiding

**Sponsored By:** Freight Systems (AT000)  
Marine (AW000)  
By invitation for Freight Systems Group and Marine Group Executive Board members only.

**Event Title:** Superstorm Sandy: Transportation Challenges and Research Opportunities in the Aftermath of a Disaster  
**Event Date:** Sunday, January 13, 2013 7:00PM - 9:30PM  
**Event Location:** Marriott, Salon 1

**Presiding Officers:** John Menzies, American Logistics Aid Network, presiding

**Sponsored By:** Critical Transportation Infrastructure Protection (ABE40)  
Logistics of Disaster Response and Business Continuity (AT065T)

**Event Description:** Superstorm Sandy” is the focus of this special evening session, with presentations from those on the front lines of preparation, response, and recovery associated with an event that led to cascading failures across all transportation modes, as well as other critical infrastructure sectors. Throughout the 2013 Annual Meeting, there are an array of sessions and workshops on preparedness and adaptation in the face of increasingly extreme weather, weather impacts on mobility and operations, emergency evacuations, making transportation more resilient,, estimating future flood flows, infrastructure design for severe events, catastrophic modeling and funding policies, risk assessment, and post-disaster humanitarian logistics.

**Presentations:** **The Role of Social Media in Preparation, Response, and Recovery**  
*Sarah Kaufman, Rudin Center, New York University, presenter*



# Monday, January 14, 2013

**Event Title:** Backcalculation of Pavement Layer Moduli Subcommittee, AFD80(1)  
**Event Date:** Monday, January 14, 2013 8:00AM - 9:45AM  
**Event Location:** Marriott, Nathan Hale  
**Presiding Officers:** Lynne H. Irwin, Cornell University, presiding  
**Sponsored By:** Strength and Deformation Characteristics of Pavement Sections (AFD80)

**Event Number:** Session 208  
**Event Title:** Exploring Environmental Design Concerns and Influences on Decision Making  
**Event Date:** Monday, January 14, 2013 8:00AM - 9:45AM  
**Event Location:** Marriott, Virginia B  
**Presiding Officers:** Scott D. Bradley, Minnesota Department of Transportation, presiding  
**Sponsored By:** Landscape and Environmental Design (AFB40)

**Event Description:** This paper presentation session explores the following range of environmental design concerns and their influences on decision making: (a) pedestrian friendliness and crossings in urban environs, (b) historic streetscape lighting & integration of aesthetic concerns with modern technology, (c) traveler preferences & values for use of public rest areas vs. commercial service facilities, and 4) variation/lack of variation in visual environments (underground roads) and effects upon driver behaviors.

**Presentations:** **Historic Streetscape Lighting: Integration of Aesthetic Concerns with Modern Technology**  
*Sloane D. Bullough, New York State Office of Parks, Recreation and Historic Preservation, presenter*  
*John D. Bullough, Rensselaer Polytechnic Institute, presenter*

**Event Number:** Session 217  
**Event Title:** Seeking Solutions to Marine Environmental Challenges  
**Event Date:** Monday, January 14, 2013 8:00AM - 9:45AM  
**Event Location:** Shoreham, Executive  
**Presiding Officers:** Angie Fredrickson, Port of Seattle, presiding  
**Sponsored By:** Intermodal Freight Terminal Design and Operations (AT050)  
Marine Environment (AW030)

**Presentations:** **Evaluation of Gate Strategies at Marine Container Terminals**  
*Jeffery Karafa, Tetra Tech, Inc. , presenter*  
*Mihalis M. Golias, University of Memphis, presenter*  
*Maria Boile, Centre for Research and Technology Hellas, Greece, presenter*  
*Sotiris Theofanis, Rutgers University, presenter*

**Event Number:** Session 218  
**Event Title:** Current Topics in Airport Ground Transportation Planning and Terminal Operations  
**Event Date:** Monday, January 14, 2013 8:00AM - 9:45AM  
**Event Location:** Shoreham, Hampton  
**Presiding Officers:** Craig T. Leiner, Massachusetts Port Authority, presiding  
**Sponsored By:** Airport Terminals and Ground Access (AV050)



Monday, January 14, 2013

**Event Description:**  
(Session 218  
Continued.....)

This session will feature presentations on a cross-section of topics related to airport terminals and ground access. Panelists were selected in order to address an array of land side topics that are timely and likely to be of interest to aviation planning practitioners.

**Presentations:**

**Forecast Of Airport Ground Access Mode Choice Using The Incremental Logit Model: A Case Study Of The Airtrain At Jfk International Airport**

*Nayeem Ameen, City College of City University of New York, presenter*  
*Camille Kamga, City College of City University of New York, presenter*

**Event Number:**

Session 225

**Event Title:**

Bikeshare Users and Systems

**Event Date:**

Monday, January 14, 2013 8:00AM - 9:45AM

**Event Location:**

Hilton, Columbia Hall 5

**Presiding Officers:**

Brian H. Y. Lee, University of Vermont, presiding

**Sponsored By:**

Bicycle Transportation (ANF20)

**Presentations:**

**Impact of Weather Conditions on Capital Bikeshare Trips**

*Kyle Gebhart, San Francisco County Transportation Authority, presenter*  
*Robert B. Noland, Rutgers University, presenter*

**Event Title:**

Corrosion Committee

**Event Date:**

Monday, January 14, 2013 8:00AM - 12:00PM

**Event Location:**

Marriott, Washington B3

**Presiding Officers:**

Seung-Kyoung Lee, Rutgers University, presiding

**Sponsored By:**

Corrosion (AHD45)

**Presentations:**

**Correlation of Non-Destructive Testing Results to Improve Assessment of Corrosion and Corrosion Damage of a Reinforced Concrete Deck**

*Brian M. Pailes, Rutgers State University, presenter*  
*Nenad Gucunski, Rutgers University, presenter*  
*Michael Carey Brown, Virginia Center for Transportation Innovation and Research, presenter*

**Event Number:**

Session 238

**Event Title:**

Construction Management: Selected Research Topics

**Event Date:**

Monday, January 14, 2013 8:30AM - 10:15AM

**Event Location:**

Marriott, Salon 2

**Presiding Officers:**

Debra R. Brisk, Hennepin County, presiding

**Sponsored By:**

Construction Management (AFH10)

**Presentations:**

**Development of Estimating Tool for Transportation Project Design**

*Trefor P. Williams, Rutgers University, presenter*  
*Neville A. Parker, City College of City University of New York, presenter*  
*James Klotz, New York State Department of Transportation, presenter*





Monday, January 14, 2013

**Event Number:** Session 239  
**Event Title:** Flexible Pavements: Perpetual Pavements, MEPDG, Material Properties, and More  
**Event Date:** Monday, January 14, 2013 8:30AM - 10:15AM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Daba Shabara Gedafa, University of North Dakota, presiding

**Sponsored By:** Flexible Pavement Design (AFD60)

**Presentations:** **Analysis of Impacts of Specimen Type on Dynamic Modulus and Predicted Pavement Performance**  
*Maria Chiara Guercio, Villanova University, presenter*  
*Leslie Ann McCarthy, Villanova University, presenter*  
*Thomas A. Bennert, Rutgers University, presenter*  
*Van DeJarnette, Villanova University, presenter*

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**Event Number:** Session 246  
**Event Title:** Seasonal and Climate Effects on Infrastructure  
**Event Date:** Monday, January 14, 2013 8:30AM - 10:15AM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** David Paul Orr, Cornell University, presiding

**Sponsored By:** Seasonal Climatic Effects on Transportation Infrastructure (AFP50)

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**Event Number:** Session 247  
**Event Title:** State Department of Transportation High-Value Research Projects  
**Event Date:** Monday, January 14, 2013 8:30AM - 10:15AM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Harold R. Paul, Louisiana Department of Transportation and Development, presiding

**Sponsored By:** Design and Construction (AF000)

**Event Description:** This session presents high-value research projects of state departments of transportation showcased at the 2012 AASHTO Research Advisory Committee summer meeting.

**Presentations:** **Recycled Asphalt Pavement in Hot-Mix Asphalt**  
*Yusuf A. Mehta, Rowan University, presenter*



Monday, January 14, 2013

**Event Number:** Session 266  
**Event Title:** Innovative and Resilient Seismic Bridge Systems  
**Event Date:** Monday, January 14, 2013 10:15AM - 12:00PM  
**Event Location:** Marriott, Delaware A

**Presiding Officers:** Elmer Marx, Alaska Department of Transportation and Public Facilities, presiding

**Sponsored By:** Seismic Design and Performance of Bridges (AFF50)

**Event Description:** Most bridges in the US are designed to accommodate seismic demands through inelastic deformations in the substructure elements. Specifically, plastic hinges in reinforced concrete bridge columns are expected to occur as a result of large lateral demands. This approach appears to be effective at accommodating seismic demands, but may result in significant column damage and excessive permanent deformations after a large seismic event. Such damage may restrict or prohibit vehicular loads on the bridge. Furthermore, bridge damage may not be economically repairable and may require that the structure with rebuilding a bridge may take years to complete, causing travel delays and economic losses. Researchers and practitioners are developing innovative and resilient seismic systems aimed at improving seismic bridge response. Bridge columns employing high performance materials have demonstrated increased deformation capacity and less damage. Design strategies allowing for accelerated construction and reconstruction of bridges have been developed and are becoming common practice in several states. Isolation bearings and other energy dissipating devices first used for seismic retrofit are being employed in new construction. The focus of the papers on this topic are to present research findings and recommendations for the utilization of these innovative materials and systems to improve the seismic performance of highway bridges.

**Presentations:** **Innovative Seismic Bridge Systems Developed at Multidisciplinary Center for Earthquake Engineering Research**  
*George C. Lee, State University of New York, Buffalo, presenter*

**Event Number:** Session 269  
**Event Title:** Nondestructive Evaluation of Transportation Structures  
**Event Date:** Monday, January 14, 2013 10:15AM - 12:00PM  
**Event Location:** Shoreham, Ambassador

**Presiding Officers:** Herbert Wigggenhauser, Federal Institute for Materials Research and Testing, Germany, presiding

**Sponsored By:** Field Testing and Nondestructive Evaluation (NDE) of Transportation Structures (AFF40)

**Presentations:** **Nondestructive Evaluation-Based Assessment of Deterioration Progression in Concrete Bridge Decks**  
*Nenad Gucunski, Rutgers University, presenter*  
*Francisco A. Romero, Rutgers University, presenter*  
*Arezoo Imani, Rutgers University, presenter*  
*Farhad A. Fetrat, Rutgers University, presenter*



Monday, January 14, 2013

**Event Number:** Session 271  
**Event Title:** Truck Size and Weight Enforcement  
**Event Date:** Monday, January 14, 2013 10:15AM - 12:00PM  
**Event Location:** Shoreham, Palladian

**Presiding Officers:** Jonathan D. Regehr, University of Manitoba, Canada, presiding

**Sponsored By:** Truck Size and Weight (AT055)

**Presentations:** **Procedure for Classifying Overweight Vehicles Using Weigh-in-Motion Data**  
*Graziano Fiorillo, City College of City University of New York, presenter*  
*Michel Ghosn, City College of City University of New York, presenter*

**Event Number:** Session 286  
**Event Title:** Concrete Properties: Current Research and Recent Advances  
**Event Date:** Monday, January 14, 2013 10:45AM - 12:30PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Tara Cavalline, University of North Carolina, Charlotte, presiding

**Sponsored By:** Properties of Concrete (AFN20)

**Presentations:** **Effect of Supplementary Cementitious Materials on Creep and Shrinkage Behavior of Self-consolidating Concrete**  
*Hani Nassif, Rutgers University, presenter*  
*Raymond El-Khoury, Shaw Group, presenter*

**Event Number:** Session 287  
**Event Title:** Electrical Resistivity, Pervious Concrete, and Other Selected Concrete Durability Topics  
**Event Date:** Monday, January 14, 2013 10:45AM - 12:30PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Tyson Rupnow, Louisiana Transportation Research Center, presiding

**Sponsored By:** Durability of Concrete (AFN30)

**Presentations:** **Effect of Accelerated Curing on Surface Resistivity and Rapid Chloride Permeability of High-Performance Concrete**  
*Michael Salvador, Rutgers University, presenter*  
*Chaekuk Na, Rutgers University, presenter*  
*Hani Nassif, Rutgers University, presenter*  
*Frank Corso, New Jersey Turnpike Authority, presenter*



Monday, January 14, 2013

**Event Number:** Session 289  
**Event Title:** Highway Safety Performance  
**Event Date:** Monday, January 14, 2013 10:45AM - 12:30PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** John J. Nitzel, CH2M Hill, presiding

**Sponsored By:** Highway Safety Performance (ANB25)

**Presentations:** **Effect of Removing Freeway Mainline Barrier Toll Plazas on Safety**  
*Hong Yang, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*  
*Bekir Bartin, Rutgers University, presenter*  
*Ozgur Ozturk, Rutgers University, presenter*

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**Event Number:** Session 290  
**Event Title:** Innovations in Concrete Materials and Placement  
**Event Date:** Monday, January 14, 2013 10:45AM - 12:30PM  
**Event Location:**

**Presiding Officers:** Farshad Rajabipour, Pennsylvania State University, presiding

**Sponsored By:** Concrete Materials and Placement Techniques (AFN40)

**Presentations:** **Strength at Early Age and Shrinkage Behavior of High Performance Concrete**  
*Chaekuk Na, Rutgers University, presenter*  
*Hani Nassif, Rutgers University, presenter*  
*W. Scott Johnsen, New Jersey Turnpike Authority, presenter*

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**Event Number:** Session 296  
**Event Title:** Revenue and Finance Showcase  
**Event Date:** Monday, January 14, 2013 10:45AM - 12:30PM  
**Event Location:** Hilton, International Center

**Presiding Officers:** Suzanne H. Sale, Federal Highway Administration, presiding

**Sponsored By:** Revenue and Finance (ABE10)

**Presentations:** **Funding Urban Transport in New York: Revenue Potential of VMT and Carbon Taxes in New York State**  
*Cameron Elliott Gordon, University of Canberra, Australia, presenter*  
*Jonathan Richard Peters, City University of New York, Staten Island, presenter*



Monday, January 14, 2013

**Event Number:** Session 299  
**Event Title:** Urban Transportation Data: New Forms, New Platforms, and New Ways of Thinking About Data  
**Event Date:** Monday, January 14, 2013 10:45AM - 12:30PM  
**Event Location:** Hilton, International Center

**Presiding Officers:** Catherine Theresa Lawson, State University of New York, Albany, presiding

**Sponsored By:** Urban Transportation Data and Information Systems (ABJ30)

**Event Number:** Session 307  
**Event Title:** Recycled Asphalt Pavement Uses: Evaluation, Blending, and Rheological Properties  
**Event Date:** Monday, January 14, 2013 1:30PM - 3:15PM  
**Event Location:** Marriott, Salon 1

**Presiding Officers:** Mike Southern, European Bitumen Association, Belgium, presiding

**Sponsored By:** Characteristics of Asphalt Materials (AFK20)

**Nanoscale Evaluation of Effect of RAP on Virgin Asphalt Binder Properties**

*Munir D. Nazzal, Ohio University, Athens, presenter*

*Walaa S. Mogawer, University of Massachusetts, Dartmouth, presenter*

*Savas Kaya, Ohio University, Athens, presenter*

*Thomas A. Bennert, Rutgers University, presenter*

**Event Title:** Seasonal Climatic Effects on Transportation Infrastructure Committee  
**Event Date:** Monday, January 14, 2013 1:30PM - 5:30PM  
**Event Location:** Marriott, Hoover

**Presiding Officers:** David Paul Orr, Cornell University, presiding

**Sponsored By:** Seasonal Climatic Effects on Transportation Infrastructure (AFP50)

**Event Number:** Session 312  
**Event Title:** Vehicle Forward Lighting: Applications and Innovations  
**Event Date:** Monday, January 14, 2013 1:30PM - 3:15PM  
**Event Location:** Marriott, Virginia C

**Presiding Officers:** Eric Traube, National Highway Traffic Safety Administration, presiding

**Sponsored By:** Visibility (AND40)

**Event Description** Vehicle forward lighting systems are often overlooked in the design and development of roadway systems. The papers and presentations in this session provide an overview of vehicle headlighting systems and summarize recent research on their effects on traffic safety.

**Presentatons:** **Introduction**  
*John D. Bullough, Rensselaer Polytechnic Institute, presenter*



Monday, January 14, 2013

**Event Number:** Session 313  
**Event Title:** Weather Impacts on Mobility and Reliability  
**Event Date:** Monday, January 14, 2013 1:30PM - 3:15PM  
**Event Location:** Marriott, Thurgood Marshall North  
**Presiding Officers:** Rhonda Kae Young, University of Wyoming, presiding  
**Sponsored By:** Surface Transportation Weather (AH010)  
Winter Maintenance (AHD65)

**Presentations:** **Impact of Inclement Weather on Hourly Traffic Volumes in Buffalo, New York**  
*Andrew Bartlett, State University of New York, Buffalo, presenter*  
*Winnifred Lao, State University of New York, Buffalo, presenter*  
*Yunjie Zhao, State University of New York, Buffalo, presenter*  
*Adel W. Sadek, State University of New York, Buffalo, presenter*

**Event Number:** Session 316  
**Event Title:** Best Practices in Postdisaster Humanitarian Logistics  
**Event Date:** Monday, January 14, 2013 1:30PM - 3:15PM  
**Event Location:** Shoreham, Diplomat  
**Presiding Officers:** Jose Holguin-Veras, Rensselaer Polytechnic Institute, presiding  
**Sponsored By:** Logistics of Disaster Response and Business Continuity (AT065T)

**Event Description** This session addresses the challenges government and nongovernment entities face in coordinating humanitarian relief in a postdisaster environment and highlights best practices.

**Event Number:** Session 317  
**Event Title:** Evaluation and Analysis of Steel Bridges  
**Event Date:** Monday, January 14, 2013 1:30PM - 3:15PM  
**Event Location:** Shoreham, Ambassador  
**Presiding Officers:** Michael P. Culmo, CME Associates, Inc., presiding  
**Sponsored By:** Steel Bridges (AFF20)

**Event Description:** These presentations deal with the analysis and evaluation of steel bridges, both existing and theoretical.

**Presentations:** **Behavior of a Typical Steel Bridge Superstructure Subjected to a Lateral Point Load on the Girder**  
*Graziano Fiorillo, City College of City University of New York, presenter*  
*Michel Ghosn, City College of City University of New York, presenter*

**Event Title:** Parking Management Joint Subcommittee of ABE50, ABE20, ABE25, AP020  
**Event Date:** Monday, January 14, 2013 1:30PM - 3:15PM  
**Event Location:** Shoreham, Diplomat  
**Presiding Officers:** Rachel R. Weinberger, Consultant, presiding

**Sponsored By:** Transportation Economics (ABE20)  
Transportation Demand Management (ABE50)  
**Event Description** Emerging and Innovative Public Transport and Technologies (AP020)  
Congestion Pricing (ABE25)  
Parking Management (ABE50(1))





Monday, January 14, 2013

**Event Number:** Session 321  
**Event Title:** Modeling Theories and Practices in Freight Planning and Logistics, Part 2 (Part 1, Session 268)  
**Event Date:** Monday, January 14, 2013 1:30PM - 3:15PM  
**Event Location:** Shoreham, Blue Room

**Presiding Officers:** Matthew J. Roorda, University of Toronto, Canada, presiding

**Sponsored By:** Freight Transportation Planning and Logistics (AT015)

**Event Description:** The second of two sessions, this session follows the call for papers in modeling of freight planning and logistics. The call specially emphasizes new development in modeling theories and practices. The models cover freight planning and operations in both private and public sectors and various modes of transportation. They represent the current state of the art in freight planning and logistics operations.

**Presentations:** **Transferability of Freight Trip Generation Models**

*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*  
*Ivan Sanchez, Rensselaer Polytechnic Institute, presenter*  
*Catherine Theresa Lawson, State University of New York, Albany, presenter*  
*Miguel Angel Jaller, Rensselaer Polytechnic Institute, presenter*  
*Shama Campbell, Rensselaer Polytechnic Institute, presenter*  
*Herbert S. Levinson, Transportation Consultant, presenter*  
*Hyeon-Shic Shin, New York University, presenter*

**Event Number:** Session 325  
**Event Title:** Data Privacy Issues in a World Where Technology Is Way Ahead of Policy  
**Event Date:** Monday, January 14, 2013 1:30PM - 3:15PM  
**Event Location:** Hilton, Georgetown East

**Presiding Officers:** Johanna P. Zmud, RAND Corporation, presiding

**Sponsored By:** Information Systems and Technology (ABJ50)  
Data for Decisions and Performance Measures (A0030T)

**Event Description:** A new landscape of embedded information and communication technologies in different modes of transportation--meant to make transport safer, cleaner, and less congested or to finance future infrastructure--raises several privacy and data protection issues not covered under current legislation. This session examines some of these contexts while raising questions and presenting solutions.

**Presentations:** **Privacy Protection Method for Fine-Grained Urban Traffic Modeling Using Mobile Sensors**

*Zhanbo Sun, Rensselaer Polytechnic Institute, presenter*  
*Bin Zan, Rutgers University, presenter*  
*Xuegang (Jeff) Ban, Rensselaer Polytechnic Institute, presenter*  
*Marco Gruteser, Rutgers University, presenter*



Monday, January 14, 2013

**Event Number:** Session 337  
**Event Title:** Freeway Incident Management and Impact of Freeway Traffic Congestion  
**Event Date:** Monday, January 14, 2013 2:00PM - 3:45PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Tiffany Elizabeth Barkley, Berkeley Transportation Systems, presiding

**Sponsored By:** Freeway Operations (AHB20)

**Event Description** This session includes papers related to freeway incident management and also some that deal with the impact of traffic congestion whether or not it is incident related.

**Presentations:** **Identifying Secondary Crashes on Freeways Using Sensor Data**  
*Hong Yang, Rutgers University, presenter*  
*Bekir Bartin, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*

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**Event Number:** Session 339  
**Event Title:** Modeling Work Zone Safety and Operations  
**Event Date:** Monday, January 14, 2013 2:00PM - 3:45PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Gerald L. Ullman, Texas A&M Transportation Institute , presiding

**Sponsored By:** Work Zone Traffic Control (AHB55)

**Presentations:** **Freeway Work Zone Lane Change Model**  
*Yang He, New Jersey Institute of Technology, presenter*  
*Janice R. Daniel, New Jersey Institute of Technology, presenter*  
**Crash Frequency Modeling for Highway Construction Zones**  
*Ozgur Ozturk, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*  
*Hong Yang, Rutgers University, presenter*  
*Bekir Bartin, Rutgers University, presenter*

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**Event Number:** Session 340  
**Event Title:** Pedestrian Planning, Policy, and Demand Analysis  
**Event Date:** Monday, January 14, 2013 2:00PM - 3:45PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Tarek Sayed, University of British Columbia, Canada, presiding

**Sponsored By:** Pedestrians (ANF10)

**Presentations:** **Pedestrian Environment and Route Choice: Evidence from New York City and Hong Kong**  
*Zhan Guo, New York University, presenter*  
*Becky P.Y. Loo, University of Hong Kong , presenterC*



Monday, January 14, 2013

**Event Number:** Session 346  
**Event Title:** Access Modes to Transit and Innovative Public Transportation Modes  
**Event Date:** Monday, January 14, 2013 2:00PM - 3:45PM  
**Event Location:** Hilton, International Center  
**Presiding Officers:** Brendon Hemily, Consultant, France, presiding

**Sponsored By:** Public Transportation Planning and Development (AP025)

**Presentations:** **Statistical Approximation Model for Estimation of Catchment Areas of Park-and-Ride Systems**  
*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*  
*Felipe Aros-Vera, Rensselaer Polytechnic Institute, presenter*  
*Wilfredo Fernando Yushimito, Universidad Adolfo Ibanez, Chile, presenter*  
*Carlos Alberto Gonzalez-Calderon, Rensselaer Polytechnic Institute, presenter*

**Event Number:** Session 348  
**Event Title:** Current Rail Transit Research  
**Event Date:** Monday, January 14, 2013 2:00PM - 3:45PM  
**Event Location:** Hilton, International Center

**Presiding Officers:** Steven H. Abrams, Chicago Transit Authority, presiding

**Sponsored By:** Rail Transit Systems (AP065)

**Presentations:** **Safety Performance Comparison Between Light Rail Transit And Subway**  
*Nehemie Jasmin, New Jersey Institute of Technology, presenter*  
*Rongfang Liu, New Jersey Institute of Technology, presenter*

**Event Number:** Session 360  
**Event Title:** Travel Time Algorithms and Arterial Monitoring  
**Event Date:** Monday, January 14, 2013 2:00PM - 3:45PM  
**Event Location:** Hilton, International Center

**Presiding Officers:** Karl Petty, Iteris, Inc., presiding

**Sponsored By:** Urban Transportation Data and Information Systems (ABJ30)  
Highway Traffic Monitoring (ABJ35)

**Event Description:** This session considers a variety of approaches to speed and travel time algorithms and performance within arterial networks.

**Presentations:** **Weather's Impact on Travel Time and Travel Time Variability in New York City**  
*M. Anil Yazici, City College of City University of New York, presenter*  
*Camille Kamga, City College of City University of New York, presenter*  
*Abhishek Singhal, City College of City University of New York, presenter*



Monday, January 14, 2013

**Event Number:** Session 371  
**Event Title:** Roadway Illumination Systems: Meeting Drivers' Visual Needs  
**Event Date:** Monday, January 14, 2013 3:45PM - 5:30PM  
**Event Location:** Marriott, Virginia C

**Presiding Officers:** Neal R. Hawkins, Iowa State University, presiding

**Sponsored By:** Visibility (AND40)

**Event Description:** Papers in this session describe the impacts of new lighting technologies on driver visibility and safety and methods for evaluating the potential impacts of the luminous environment on driver response.

**Presentations:** **Development of a Guide for Replacement of Roadway Lighting with New Lighting Technologies**  
*John D. Bullough, Rensselaer Polytechnic Institute, presenter*

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**Event Number:** Session 377  
**Event Title:** Asphalt Material Properties and Pavement Performance  
**Event Date:** Monday, January 14, 2013 3:45PM - 5:30PM  
**Event Location:** Shoreham, Regency Ballroom

**Presiding Officers:** A. Samy Noureldin, Indiana Department of Transportation, presiding

**Sponsored By:** Flexible Pavement Design (AFD60)

**Presentations:** **Determining Impact of Degree of Blending Between Virgin and Reclaimed Asphalt Binder on Predicted Pavement Performance Using Mechanistic-Empirical Pavement Design Guide**  
*Sean Coffey, Rowan University, presenter*  
*Eric DuBois, Rowan University, presenter*  
*Yusuf A. Mehta, Rowan University, presenter*  
*Caitlin Purdy, Rowan University, presenter*

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**Event Title:** *Pedestrian and Bicycle University Education Joint Subcommittee of ANF20, ANF10*  
**Event Date:** *Monday, January 14, 2013 3:45PM - 5:30PM*  
**Event Location:** *Hilton, Northwest*

**Presiding Officers:** *Lynn Weigand, Portland State University, presiding*  
*Rebecca L. Sanders, University of California, Berkeley, presiding*

**Sponsored By:** *Pedestrians (ANF10)*  
*Bicycle Transportation (ANF20)*

**Presentations:** **Teaching Pedestrian and Bicycle Transportation: Experiences from around the U.S.**  
*Daniel Baldwin Hess, State University of New York, Buffalo, presenter*  
*K. Meghan Wieters, University of Oklahoma, presenter*  
*Peter G. Furth, Northeastern University, presenter*



Monday, January 14, 2013

**Event Title:** Taxi Subcommittee, AP060(2)  
**Event Date:** Monday, January 14, 2013 3:45PM - 6:30PM  
**Event Location:** Hilton, Fairchild

**Presiding Officers:** James Cooper, Napier University, United Kingdom, presiding

**Sponsored By:** Paratransit (AP060)

**Event Description** The session will include both a Taxi sub-committee meeting and workshop. The workshop will focus on taxi regulation and the role of data analysis.

**Presentatons:** **Live GPS Data: Understanding Asymmetric Demand for Mode Choice Planning in Taxis**  
*David King, Columbia University, presenter*

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**Event Number:** Session 400  
**Event Title:** Driver and Worker Behavior in Work Zones  
**Event Date:** Monday, January 14, 2013 4:15PM - 6:00PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Gerald L. Ullman, Texas A&M Transportation Institute , presiding

**Sponsored By:** Work Zone Traffic Control (AHB55)

**Presentations:** **Evaluation of Supplementary Traffic Control Devices for Surveyor Safety Enhancement**  
*Hong Yang, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*  
*Bekir Bartin, Rutgers University, presenter*  
*I-Jy Chien, New Jersey Institute of Technology, presenter*

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**Event Number:** Session 401  
**Event Title:** Field Monitoring and Maintenance of Highway Bridges  
**Event Date:** Monday, January 14, 2013 4:15PM - 6:00PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Michael Carey Brown, Virginia Center for Transportation Innovation and Research, presiding

**Sponsored By:** Structures Maintenance (AHD30)  
Bridge Management (AHD35)  
Corrosion (AHD45)

**Presentations:** **Monitoring and Assessment of Concrete Deck Cracking Potential in Negative Moment Regions**  
*Hani Nassif, Rutgers University, presenter*  
*Ope Adediji, Rutgers University, presenter*  
*Dan Su, Rutgers University, presenter*  
*Peng Lou, Rutgers University, presenter*  
*W. Scott Johnsen, New Jersey Turnpike Authority, presenter*



Monday, January 14, 2013

Event Number

Session 407

Event Title:

Current Research in Urban Freight Transportation

Event Date:

Monday, January 14, 2013 4:15PM - 6:00PM

Event Location:

Shoreham, Ambassador

Presiding Officers:

Michael Browne, University of Westminster, United Kingdom, presiding

Sponsored By:

Urban Freight Transportation (AT025)

Event Description:

This poster session exhibits papers that treat urban freight transportation. Drawing from national and international research, the papers address a wide range of topics such as truck parking, delivery strategies, new technologies, and land use.

Presentations:

**Fostering the Use of Unassisted Off-Hour Deliveries: Operational and Low-Noise Truck Technologies**

*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*

*Robyn Marquis, Rensselaer Polytechnic Institute, presenter*

*Shama Campbell, Rensselaer Polytechnic Institute, presenter*

*Jeffrey M. Wojtowicz, Rensselaer Polytechnic Institute, presenter*

*Xiaokun (Cara) Wang, Rensselaer Polytechnic Institute, presenter*

*Miguel Angel Jaller, Rensselaer Polytechnic Institute, presenter*

*Stacey Darville Hodge, New York City Department of Transportation, presenter*

*Sandra Rothbard, New York City Department of Transportation, presenter*

*Robert Goevaers, Goevaers Consultancy, presenter*

**Unassisted Off-Hour Deliveries and Their Potential Role in Freight Transportation Demand Management: Results from an Attitudinal Survey**

*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*

*Xiaokun (Cara) Wang, Rensselaer Polytechnic Institute, presenter*

*Stacey Darville Hodge, New York City Department of Transportation, presenter*

*Shama Campbell, Rensselaer Polytechnic Institute, presenter*

*Ivan Sanchez, Rensselaer Polytechnic Institute, presenter*

*Robyn Marquis, Rensselaer Polytechnic Institute, presenter*

*Miguel Angel Jaller, Rensselaer Polytechnic Institute, presenter*

*Sandra Rothbard, New York City Department of Transportation, presenter*

*Jeffrey M. Wojtowicz, Rensselaer Polytechnic Institute, presenter*

**Assessing the Role of Land Use, Network Characteristics, and Spatial Effects on Freight Trip Attraction**

*Ivan Sanchez, Rensselaer Polytechnic Institute, presenter*

*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*

*Xiaokun (Cara) Wang, Rensselaer Polytechnic Institute, presenter*

**Comparative Analyses of Stated Behavioral Responses to Off-Hour Delivery Policies**

*Miguel Angel Jaller, Rensselaer Polytechnic Institute, presenter*

*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*





Monday, January 14, 2013

**Presentatons:**  
(Session 407  
Continued.....)

**Large Traffic Generators: Opportunities for City Logistics Initiatives**

*Miguel Angel Jaller, Rensselaer Polytechnic Institute, presenter*  
*Xiaokun (Cara) Wang, Rensselaer Polytechnic Institute, presenter*  
*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*

**Decision-Making Process for Developing Urban Freight Consolidation Centers: Analysis with Experimental Economics**

*Yiwei Zhou, Rensselaer Polytechnic Institute, presenter*  
*Xiaokun (Cara) Wang, Rensselaer Polytechnic Institute, presenter*

**Commercial Vehicle Travel Time Estimation in Urban Networks Using GPS Data from Multiple Sources**

*Ender Faruk Morgul, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*  
*Shrisan Iyer, Rutgers University, presenter*  
*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*

**Commercial Vehicle Travel Time Estimation in Urban Networks Using GPS Data from Multiple Sources**

*Ender Faruk Morgul, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*  
*Shrisan Iyer, Rutgers University, presenter*  
*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*

**Event Number:**  
**Event Title:**  
**Event Date:**  
**Event Location:**

Session 410  
Truck Data Enhancements to Improve Logistics and Planning  
Monday, January 14, 2013 4:15PM - 6:00PM  
Shoreham, Blue Room Foyer

**Presiding Officers:**

Jack Klodzinski, URS Corporation, presiding

**Sponsored By:**

Freight Transportation Data (ABJ90)

**Presentations:**

**Identifying and Classifying Freight Trip Stops from GPS Data**

*Eric Richardson, Rensselaer Polytechnic Institute, presenter*  
*Xuegang (Jeff) Ban, Rensselaer Polytechnic Institute, presenter*  
*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*

**Event Number:**  
**Event Title:**  
**Event Date:**  
**Event Location:**

Session 411  
Information and Policy Tools to Influence and Manage Parking Demand  
Monday, January 14, 2013 4:15PM - 6:00PM  
Hilton, International Center

**Presiding Officers:**

Rachel R. Weinberger, Unaffiliated, presiding

**Sponsored By:**

Transportation Demand Management (ABE50)

**Presentations:**

**Amenity Versus Necessity: Rethinking Residential Street Width Standard as U.S. Parking Policy**

*Zhan Guo, New York University, presenter*



Monday, January 14, 2013

**Event Number:** Session 417  
**Event Title:** Public Transportation and Land Use Interactions and Research on Transit-Oriented Development  
**Event Date:** Monday, January 14, 2013 4:15PM - 6:00PM  
**Event Location:** Hilton, International Center

**Presiding Officers:** Joana Conklin, Foursquare Integrated Transportation Planning, presiding

**Sponsored By:** Public Transportation Planning and Development (AP025)

**Presentations:** **Satisfaction with Transit-Oriented Development: Perspectives from Focus Groups and Interviews**  
*Robert B. Noland, Rutgers University, presenter*  
*Nicholas K Tulach, Rutgers University, presenter*  
*Marc Weiner, Rutgers University, presenter*  
*Stephanie DiPetrillo, Rutgers University, presenter*  
*Andrew I. Kay, Rutgers University, presenter*

**Event Title:** Visibility Committee  
**Event Date:** Monday, January 14, 2013 7:30PM - 9:30PM  
**Event Location:** Marriott, Wilson A

**Presiding Officers:** John D. Bullough, Rensselaer Polytechnic Institute, presiding

**Sponsored By:** Visibility (AND40)

**Event Number:** Session 430  
**Event Title:** Emerging Technologies for Intelligent Signal Control  
**Event Date:** Monday, January 14, 2013 7:30PM - 9:30PM  
**Event Location:** Marriott, Salon 2

**Sponsored By:** Traffic Signal Systems (AHB25)

**Presentations:** **Long Queue Estimation Using Short Vehicle Trajectories for Signalized Intersections**  
*Peng Hao, Rensselaer Polytechnic Institute, presenter*  
*Xuegang (Jeff) Ban, Rensselaer Polytechnic Institute, presenter*

**Event Number:** Session 439  
**Event Title:** Transportation Safety Management and Alcohol Research  
**Event Date:** Monday, January 14, 2013 7:30PM - 9:30PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Jake Kononov, DiExSys LLC, presiding

**Sponsored By:** Transportation Safety Management (ANB10)  
Alcohol, Other Drugs, and Transportation (ANB50)

**Presentations:** **Do Lower-Income Areas Have More Pedestrian Casualties?**  
*Robert B. Noland, Rutgers University, presenter*  
*Nicholas J. Klein, Rutgers University, presenter*  
*Nicholas K Tulach, Rutgers University, presenter*



Monday, January 14, 2013

**Event Title:** Major Activity Center Circulation Systems Committee  
**Event Date:** Monday, January 14, 2013 7:30PM - 10:00PM  
**Event Location:** Hilton, Columbia Hall 2

**Presiding Officers:** Rongfang Liu, New Jersey Institute of Technology, presiding

**Sponsored By:** Major Activity Center Circulation Systems (AP040)

**Event Title:** Steel Bridges Committee  
**Event Date:** Monday, January 14, 2013 7:30PM - 10:00PM  
**Event Location:** Marriott, Washington B2

**Presiding Officers:** Barney T. Martin, Modjeski and Masters Inc., presiding

**Sponsored By:** Steel Bridges (AFF20)

**Presentations:** **Leaching Behavior of Lead and Chromium from Bridge Paint Waste in the Presence of Steel Grit.**  
*Zhan Shu, New Jersey Institute of Technology, presenter*  
*Lisa Axe, New Jersey Institute of Technology, presenter*  
*Kauser Jahan, Rowan University, presenter*  
*Kandalam V. Ramanujachary, Rowan University, presenter*

**Event Number:** Session 451  
**Event Title:** Network Traffic Assignment and Equilibrium Models  
**Event Date:** Monday, January 14, 2013 7:30PM - 9:30PM  
**Event Location:** Hilton, Jefferson West

**Presiding Officers:** Stephen Boyles, University of Texas, Austin, presiding

**Sponsored By:** Transportation Network Modeling (ADB30)

**Presentations:** **Approximating Time Delays in Solving Continuous-Time Dynamic User Equilibria**  
Rui Ma, Rensselaer Polytechnic Institute, presenter  
Xuegang (Jeff) Ban, Rensselaer Polytechnic Institute, presenter  
Jong-Shi Pang, University of Illinois, Urbana-Champaign, presenter  
Henry X. Liu, University of Minnesota, Twin Cities, presenter

**Continuous-Time Dynamic System Optimal for Single-Destination Traffic Networks Considering Queue Spillbacks**  
Rui Ma, Rensselaer Polytechnic Institute, presenter  
Xuegang (Jeff) Ban, Rensselaer Polytechnic Institute, presenter  
*Jong-Shi Pang, University of Illinois, Urbana-Champaign, presenter*

# Tuesday, January 15, 2013

**Event Title:** Logistics of Disaster Response and Business Continuity Task Force  
**Event Date:** Tuesday, January 15, 2013 8:00AM - 9:45AM  
**Event Location:** Shoreham, Governors

**Presiding Officers:** Jon S. Meyer, Consultant, France, presiding

**Sponsored By:** Logistics of Disaster Response and Business Continuity (AT065T)

**Presentations:**  
**The Lessons From Catastrophic Events For Post-disaster Humanitarian Logistic Efforts: The Port Au Prince Earthquake And The Tohoku Disasters**  
*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*  
*Miguel Angel Jaller, Rensselaer Polytechnic Institute, presenter*  
*Eiichi Taniguchi, Kyoto University, Japan, presenter*  
*Felipe Aros-Vera, Rensselaer Polytechnic Institute, presenter*

**Event Number:** Session 489  
**Event Title:** Perspectives and Analyses on Public Transportation Policy, Equity Considerations, and Interactions with Nonmotorized Modes  
**Event Date:** Tuesday, January 15, 2013 8:00AM - 9:45AM  
**Event Location:** Hilton, Jefferson West

**Presiding Officers:** Brendon Hemily, Consultant, France, presiding

**Sponsored By:** Public Transportation Planning and Development (AP025)

**Presentations:**  
**Demand for Public Transport in Germany and the United States: Analysis of Rider Characteristics**  
*Ralph Buehler, Virginia Polytechnic Institute and State University, presenter*  
*John Pucher, Rutgers University, presenter*

**Event Number:** Session 491  
**Event Title:** Travel Behavior and Carsharing: New Insights  
**Event Date:** Tuesday, January 15, 2013 8:00AM - 9:45AM  
**Event Location:** Hilton, Columbia Hall 8

**Presiding Officers:** Francesco Ciari, Swiss Federal Institute of Technology, Zurich, presiding

**Sponsored By:** Emerging and Innovative Public Transport and Technologies (AP020)

**Presentations:**  
**Smart Devices and Travel Time Use by Bus Passengers in Vancouver, Canada**  
*Zhan Guo, New York University, presenter*  
*Alexandra Derian, New York University, presenter*  
*Jinhua Zhao, University of British Columbia, Canada, presenter*



Tuesday, January 15, 2013

**Event Number:** Session 493  
**Event Title:** Dwight David Eisenhower Transportation Fellowship Program Research Showcase  
**Event Date:** Tuesday, January 15, 2013 8:00AM - 12:00PM  
**Event Location:** Hilton, International West

**Presiding Officers:** Henry C. Murdaugh, Federal Highway Administration, presiding

**Sponsored By:** **Research and Education (ABG00)  
Design (AFB00)**

**Event Description:** This session showcases the innovative research of the 2012 undergraduate and graduate Eisenhower fellowship recipients. Recipients present their research in a panel format, which addresses a broad array of significant transportation topics including congestion mitigation, infrastructure development and investment, safety, security, emerging green technologies, logistics, and a host of other relevant transportation topics.

**Presentations:** Before-and-After Highway Safety Evaluation Using Empirical Bayes Approach: Case Study in Indiana  
*Davis Chacon Hurtado, University of Puerto Rico, Mayaguez, presenter*

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**Event Number:** Session 494  
**Event Title:** Cycling Infrastructure and Safety  
**Event Date:** Tuesday, January 15, 2013 8:30AM - 10:15AM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Jeffrey J. LaMondia, Auburn University, presiding

**Sponsored By:** Bicycle Transportation (ANF20)

**Presentations:** **Characteristics of Multimodal Conflicts in Urban On-Street Bicycle Lanes**  
*Alison J. Conway, City College of City University of New York, presenter*  
*Jialei Cheng, City College of City University of New York, presenter*  
*Diniece Peters, City College of City University of New York, presenter*  
*Nicholas E. Lownes, University of Connecticut, presenter*

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**Event Number:** Session 495  
**Event Title:** Maintenance and Operations Management of Highway Infrastructure  
**Event Date:** Tuesday, January 15, 2013 8:30AM - 10:15AM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Richard Fox-Ivey, RFI Consulting Services, presiding

**Sponsored By:** Maintenance and Operations Management (AHD10)

**Presentations:** **Long-Term Maintenance of Culverts**  
*Jay N. Meegoda, New Jersey Institute of Technology, presenter*



Tuesday, January 15, 2013

<b>Event Number:</b>	Session 501
<b>Event Title:</b>	Rail Poster Session for AR050, AR055
<b>Event Date:</b>	Tuesday, January 15, 2013 8:30AM - 10:15AM
<b>Event Location:</b>	Shoreham, Blue Room Foyer
<b>Sponsored By:</b>	Rail Transit Infrastructure (AR055) Railroad Track Structure System Design (AR050)
<b>Presentations:</b>	<b>Modeling and Field Verification of Dynamic Impact in Railroad Bridges</b> <i>Hani Nassif, Rutgers University, presenter</i> <i>Peng Lou, Rutgers University, presenter</i> <i>Ying-Jie Wang, Rutgers University, presenter</i> <i>Eui-Seung Hwang, Kyung Hee University, South Korea, presenter</i> <b>Load Rating and Evaluation of Railroad Bridge Based on Nondestructive Testing and Finite Element Modeling</b> <i>Hani Nassif, Rutgers University, presenter</i> <i>Dan Su, Rutgers University, presenter</i> <i>Peng Lou, Rutgers University, presenter</i>
<b>Event Number:</b>	Session 502
<b>Event Title:</b>	Railroad Track
<b>Event Date:</b>	Tuesday, January 15, 2013 8:30AM - 10:15AM
<b>Event Location:</b>	Shoreham, Blue Room Foyer
<b>Sponsored By:</b>	Railway Maintenance (AR060)
<b>Presentations:</b>	<b>Ultrasonic Tomography for Three-Dimensional Imaging of Internal Rail Flaws: Proof-of-Principle Numerical Simulations</b> <i>Francesco Lanza di Scalea, University of California, San Diego, presenter</i> <i>Piervincenzo Rizzo, Independent Consultant, presenter</i> <i>Salvatore Salamone, State University of New York, Buffalo, presenter</i> <i>Ivan Bartoli, Drexel University, presenter</i> <i>Leith Al-Nazer, Federal Railroad Administration, presenter</i>
<b>Event Number:</b>	Session 503
<b>Event Title:</b>	Current Issues in Transportation Energy, Alternative Fuels, and Climate Change
<b>Event Date:</b>	Tuesday, January 15, 2013 8:30AM - 10:15AM
<b>Event Location:</b>	Hilton, International Center
<b>Presiding Officers:</b>	Eduardo Maeyama, Parsons Brinckerhoff, presiding
<b>Sponsored By:</b>	Environment and Energy (ADC00) , Climate Change (ADC70(2)) ,Transportation Energy (ADC70) Alternative Transportation Fuels and Technologies (ADC80)
<b>Presentations:</b>	<b>Life-Cycle Cost Analysis of Hybrid Bus Deployment on Transit Lines</b> <i>Bekir Bartin, Rutgers University, presenter</i>
<b>Event Number:</b>	Session 508
<b>Event Title:</b>	Application of Structural Health Monitoring
<b>Event Date:</b>	Tuesday, January 15, 2013 10:15AM - 12:00PM
<b>Event Location:</b>	Marriott, Thurgood Marshall North
<b>Presiding Officers:</b>	John Christian Duke, Virginia Polytechnic Institute and State University, presiding
<b>Sponsored By:</b>	Structures Maintenance (AHD30) Bridge Management (AHD35)
<b>Presentations:</b>	<b>New Procedure for Estimating Cable Force in Cable-Stayed Bridge</b> <i>Wan Soon Park, Hanyang University, South Korea, presenter</i> <i>Dong-Ho Choi, Hanyang University, South Korea, presenter</i> <i>Hani Nassif, Rutgers University, presenter</i>





Tuesday, January 15, 2013

**Event Number:** Session 514  
**Event Title:** Evolving Practice and Planning in Evacuation Transportation  
**Event Date:** Tuesday, January 15, 2013 10:15AM - 12:00PM  
**Event Location:** Marriott, Maryland B

**Presiding Officers:** Brian Wolshon, Louisiana State University, presiding

**Sponsored By:** Emergency Evacuation (ANB80T)

**Presentations:**  
**Improving Transportation Resource Coordination for Multimodal Evacuation Planning: Literature Review and Research Agenda**  
*Daniel Baldwin Hess, State University of New York, Buffalo, presenter*  
*Brian W. Conley, University at Buffalo, State University of New York, presenter*  
*Christina M. Farrell, University at Buffalo, State University of New York, presenter*

**Event Number:** Session 518  
**Event Title:** New Approaches to Improving Safety at Highway-Rail Grade Crossings  
**Event Date:** Tuesday, January 15, 2013 10:15AM - 12:00PM  
**Event Location:** Marriott, Thurgood Marshall West

**Presiding Officers:** Jason Field, Moffatt & Nichol Engineers, presiding

**Sponsored By:** Highway/Rail Grade Crossings (AHB60)

**Presentations:**  
**Driver Injury Severity Study at Highway-Rail Grade Crossings in the United States**  
*Wei Hao, New Jersey Institute of Technology, presenter*  
*Janice R. Daniel, New Jersey Institute of Technology, presenter*

**Event Number:** Session 537  
**Event Title:** Public-Private Partnership Design and Decisions: Theoretical and Practical Approaches from U.S. and International Experts  
**Event Date:** Tuesday, January 15, 2013 10:15AM - 12:00PM  
**Event Location:** Hilton, International East

**Presiding Officers:** Jennifer R. Mayer, Federal Highway Administration, presiding

**Sponsored By:** Revenue and Finance (ABE10)

**Event Description:** Planning and finance practitioners will describe the challenges of integrating consideration of alternative revenue sources, innovative finance tools, and P3s into their project development processes. Participants will discuss best practices, lessons learned, and skills, techniques, and processes used to promote earlier and more comprehensive consideration of alternative revenue and P3 options.

**Presentations:**  
**Private Investment and Road Pricing: The Investment Public-Private Partnership**  
*Raymond Richard Geddes, Cornell University, presenter*  
*Dimitar Nentchev, Cornell University, presenter*  
**Do State Public-Private Partnership Enabling Laws Affect Investment in Infrastructure?**  
*Raymond Richard Geddes, Cornell University, presenter*  
*Benjamin L. Wagner, Cornell University, presenter*



Tuesday, January 15, 2013

**Event Title:** Climate Change and Energy Task Force  
**Event Date:** Tuesday, January 15, 2013 10:15AM - 12:00PM  
**Event Location:** Hilton, Gunston

**Presiding Officers:** Robert B. Noland, Rutgers University, presiding

**Sponsored By:** Climate Change and Energy (A0020T)

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**Event Number:** Session 539  
**Event Title:** Time Use and Travel Choice Dynamics  
**Event Date:** Tuesday, January 15, 2013 10:15AM - 12:00PM  
**Event Location:** Hilton, Columbia Hall 7

**Presiding Officers:** Cynthia Chen, University of Washington, presiding

**Sponsored By:** Traveler Behavior and Values (ADB10)

**Presentations:** **Quantity and Quality of Productive Use of Transit Commuting Time: A Heckman Model**  
*Jinhua Zhao, University of British Columbia, Canada, presenter*  
*Allison Lung, University of British Columbia, presenter*  
*Zhan Guo, New York University, presenter*

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**Event Number:** Session 548  
**Event Title:** Snowplow Routing, Fleet Size, and Data Collection for Winter Maintenance  
**Event Date:** Tuesday, January 15, 2013 10:45AM - 12:30PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Dave Bergner, Maricopa County Department of Transportation, presiding

**Sponsored By:** Winter Maintenance (AHD65)

**Presentations:** **Optimal Routing for Minimum Service Time of Winter Road Maintenance with Truck Capacity and Fleet Size Constraints**

*I-Jy Chien, New Jersey Institute of Technology, presenter*  
*Haifeng Yu, New Jersey Institute of Technology, presenter*

**Estimation of Maintenance Fleet Size for Spreading Operations Considering Road Geometry, Weather, and Traffic**

*I-Jy Chien, New Jersey Institute of Technology, presenter*  
*Shengyan Gao, New Jersey Institute of Technology, presenter*  
*Jay N. Meegoda, New Jersey Institute of Technology, presenter*  
*Taha Marhaba, New Jersey Institute of Technology, presenter*



Tuesday, January 15, 2013

**Event Number:** Session 550  
**Event Title:** Visibility and Visual Information for Roadways  
**Event Date:** Tuesday, January 15, 2013 10:45AM - 12:30PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** John D. Bullough, Rensselaer Polytechnic Institute, presiding

**Sponsored By:** Visibility (AND40)

**Event Description:** Driving is an inherently visual task. Papers presented in this poster session describe diverse approaches to characterizing the visual environment for safe driving during daytime and nighttime.

**Event Number:** Session 557  
**Event Title:** Current Issues in Transportation and the Environment  
**Event Date:** Tuesday, January 15, 2013 10:45AM - 12:30PM  
**Event Location:** Hilton, International Center

**Presiding Officers:** Eduardo Maeyama, Parsons Brinckerhoff, presiding

**Sponsored By:** Environmental Analysis in Transportation (ADC10)  
Transportation and Air Quality (ADC20)  
Ecology and Transportation (ADC30)  
Historic and Archeological Preservation in Transportation (ADC50)  
Waste Management and Resource Efficiency in Transportation (ADC60)  
Environment and Energy (ADC00)

**Presentations:**

**Analytical Model for Vehicle Emissions at Signalized Intersection: Integrating Traffic and Microscopic Emissions Models**  
*Rooholamin Shabihkhani, Rutgers University, presenter*  
*Eric J. Gonzales, Rutgers University, presenter*

**Simplified Emissions Estimation Methodology Based on MOVES to Estimate Vehicle Emissions from Transportation Assignment and Simulation Models**  
*Eren Erman Ozguven, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*  
*Shrisan Iyer, Rutgers University, presenter*



Tuesday, January 15, 2013

**Event Number:** Session 559  
**Event Title:** Latest Trends in Bike-, Car-, and Ridesharing  
**Event Date:** Tuesday, January 15, 2013 10:45AM - 12:30PM  
**Event Location:** Hilton, International Center

**Presiding Officers:** Susan A. Shaheen, University of California, Berkeley, presiding

**Sponsored By:** Bicycle Transportation (ANF20)  
Emerging and Innovative Public Transport and Technologies (AP020)

**Presentations:** **Residential On-Site Carsharing and Off-Street Parking: The Case of San Francisco Bay Area**  
*Charles Richard Rivasplata, San Jose State University, presenter*  
*Zhan Guo, New York University, presenter*  
*Richard W. Lee, Fehr & Peers, presenter*  
*David Keyon, San Jose State University, presenter*

**Event Number:** Session 577  
**Event Title:** Freight Day, Part 3: U.S. Freight Corridor and Gateways (Part 1, Session 476; Part 2, Session 526; Part 4, Session 634)  
**Event Date:** Tuesday, January 15, 2013 1:30PM - 3:15PM  
**Event Location:** Shoreham, Blue Room

**Presiding Officers:** Thomas H. Wakeman, Stevens Institute of Technology, presiding

**Sponsored By:** Freight Systems (AT000)  
Marine (AW000)  
Ports and Channels (AW010)  
Inland Water Transportation (AW020)

**Event Number:** Session 586  
**Event Title:** Harnessing Data to Improve the Planning and Operation of Commuter Rail Services  
**Event Date:** Tuesday, January 15, 2013 1:30PM - 3:15PM  
**Event Location:** Hilton, Georgetown East

**Presiding Officers:** Walter E. Zullig, Transportation Attorney, presiding

**Sponsored By:** Commuter Rail Transportation (AP070)

**Event Description:** New travel patterns, increased ridership, and fiscal austerity continue to pressure commuter rail service providers to do more with less. However, emerging methods for service planning and examination of ridership patterns have revealed opportunities for progress. To offer new perspectives on long-standing challenges, this session presents five papers with research on assigning crews, modal choice, environmental impacts, service analysis, and coordinating connecting services that harness the power of data.

**Presentations:** **Revenue and Environmental Benefits of New Off-Peak Commuter Rail Service: Case of Pascack Valley Line in New Jersey**  
*Devajyoti Deka, Rutgers University, presenter*  
*Thomas W. Marchwinski, New Jersey Transit, presenter*



Tuesday, January 15, 2013

**Event Number:** Session 590  
**Event Title:** Sustainable Energy and Transportation: Strategies, Research, and Data  
**Event Date:** Tuesday, January 15, 2013 1:30PM - 3:15PM  
**Event Location:** Hilton, Jefferson East

**Presiding Officers:** Daniel Sperling, University of California, Davis, presiding

**Sponsored By:** Climate Change and Energy (A0020T)

**Event Description:** This session highlights the discussion and findings from the University Transportation Center Spotlight Conference on Sustainable Energy and Transportation, held in November 2012.

**Presentations:**

**What Can Metropolitan Areas Do to Reduce Transportation Energy Consumption and Greenhouse Gas Emissions?**  
*Robert B. Noland, Rutgers University, presenter*

**Event Number:** Session 603  
**Event Title:** Role of Surface Transportation Weather in Highway Operations  
**Event Date:** Tuesday, January 15, 2013 2:00PM - 3:45PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Wilfrid A. Nixon, University of Iowa, presiding

**Sponsored By:** Surface Transportation Weather (AH010)  
Winter Maintenance (AHD65)

**Presentations:**

**Prediction of Coastal Flooding and Evacuation Demand Estimation Considering Climate Change**  
*Hansong Tang, City College of City University of New York, presenter*  
*Steven I-Jy Chien, New Jersey Institute of Technology, presenter*  
*Temimi Marouane, City College of City University of New York, presenter*  
*Ke Qu, City College of City University of New York, presenter*  
*Liuhui Zhao, New Jersey Institute of Technology, presenter*  
*Cheryl Ann Blain, Naval Research Laboratory, presenter*  
*Simon Kraatz, City College of City University of New York, presenter*

**Transportation System Performance Under Inclement Winter Weather: Perspectives from Weather-Induced Multiple Hazard Situations and Traveler Information**  
*Jinge Hu, State University of New York, Buffalo, presenter*  
*Qian Wang, State University of New York, Buffalo, presenter*  
*Adel W. Sadek, State University of New York, Buffalo, presenter*  
*Zhiyong Wang, State University of New York, Buffalo, presenter*

**Impact of Inclement Winter Weather on Border Crossing Traffic: Findings and Implications from Niagara Frontier Border**  
*Qian Wang, State University of New York, Buffalo, presenter*  
*Jinge Hu, State University of New York, Buffalo, presenter*



Tuesday, January 15, 2013

**Event Number:** Session 606  
**Event Title:** TRB's IDEA Programs: Sponsoring Innovation in Transportation  
**Event Date:** Tuesday, January 15, 2013 2:00PM - 3:45PM  
**Event Location:** Marriott, Salon 2  
**Presiding Officers:** Linda S. Mason, Transportation Research Board, presiding

**Sponsored By:** NCHRP IDEA Program (20-30)  
Transportation Safety IDEA Program (E1008)

**Presentations:** **Corrosion-Resistant, Structurally Reinforced Thermal Spray Coatings for In-Situ Repair of Load Bearing Structures, NCHRP-IDEA 155**  
*Sanjay Sampath, State University of New York at Stony Brook, presenter*  
*Andrew Vackel, State University of New York at Stony Brook, presenter*  
*Toshio Nakamura, State University of New York at Stony Brook, presenter*

**Event Number:** Session 612  
**Event Title:** Bus Operations  
**Event Date:** Tuesday, January 15, 2013 2:00PM - 3:45PM  
**Event Location:** Hilton, International Center  
**Presiding Officers:** Dennis P. Hinebaugh, University of South Florida, presiding

**Sponsored By:** Bus Transit Systems (AP050)

**Presentations:** **Optimizing Stop Spacing and Headway for Feeder Bus Route Considering Stochastic Vehicle Arrivals**  
*I-Jy Chien, New Jersey Institute of Technology, presenter*  
*Liuhui Zhao, New Jersey Institute of Technology, presenter*

**Event Number:** Session 613  
**Event Title:** Dwight David Eisenhower Transportation Fellowship Program, Part 1 (Part 2, Session 663)  
**Event Date:** Tuesday, January 15, 2013 2:00PM - 3:45PM  
**Event Location:** Hilton, International Center  
**Presiding Officers:** Henry C. Murdaugh, Federal Highway Administration, presiding

**Sponsored By:** Research and Education (ABG00)  
Design (AFB00)

**Presentations:** **Pavement Condition Ratings for Parking Lots Using Modified PASER**  
*Valeria Arocho, University of Puerto Rico, Mayaguez, presenter*

**Event Number:** Session 616  
**Event Title:** Open Data in Transportation  
**Event Date:** Tuesday, January 15, 2013 2:00PM - 3:45PM  
**Event Location:** Hilton, International Center  
**Presiding Officers:** Kendra Klepic Levine, University of California, Berkeley, presiding

**Sponsored By:** Library and Information Science for Transportation (ABG40)

**Presentations:** **Getting Started with Open Data**  
*Sarah Kaufman, Rudin Center, New York University, presenter*





Tuesday, January 15, 2013

**Event Number:** Session 618  
**Event Title:** Transportation Information Technology Applications  
**Event Date:** Tuesday, January 15, 2013 2:00PM - 3:45PM  
**Event Location:** Hilton, International Center  
**Presiding Officers:** Frances D. Harrison, Spy Pond Partners, presiding

**Sponsored By:** Information Systems and Technology (ABJ50)

**Presentations:** **Development of Connectivity-Based Underground Fiber-Optic Network Inventory Systems**  
*Fadi Antoun Karaa, New Jersey Institute of Technology, presenter*  
*Sugata Banerji, New Jersey Institute of Technology, presenter*

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**Event Number:** Session 625  
**Event Title:** Recent Work Zone Safety and Mobility Research  
**Event Date:** Tuesday, January 15, 2013 3:45PM - 5:30PM  
**Event Location:** Marriott, Thurgood Marshall North

**Presiding Officers:** Wesley Charles Zech, Auburn University, presiding

**Sponsored By:** Work Zone Traffic Control (AHB55)

**Presentations:** **Work Zone Lighting and Visual Performance: Analysis and Demonstration**  
*John D. Bullough, Rensselaer Polytechnic Institute, presenter*  
*Ute Besenecker, Rensselaer Polytechnic Institute, presenter*  
*Jeremy D. Snyder, Rensselaer Polytechnic Institute, presenter*  
*Nicholas P. Skinner, Rensselaer Polytechnic Institute, presenter*

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**Event Number:** Session 648  
**Event Title:** Taxi Tales: Stories of Surprise and Success  
**Event Date:** Tuesday, January 15, 2013 3:45PM - 5:30PM  
**Event Location:** Hilton, Jefferson East

**Presiding Officers:** James Cooper, Napier University, United Kingdom, presiding

**Sponsored By:** Paratransit (AP060)

**Event Description:** Four papers that display the wide range of contemporary research on the current state of taxi service and operations. We start in New York, head to China and Singapore, and return to New York.

**Presentations:** **Why Do Regulated Jitney Services Often Fail? Evidence from New York City Group Ride Vehicle Project**  
*David King, Columbia University, presenter*  
*Eric Goldwyn, Columbia University, presenter*  
**Hailing in the Rain: Temporal and Weather-Related Variations in Taxi Ridership and Taxi Demand-Supply Equilibrium**  
*Camille Kamga, City College of City University of New York, presenter*  
*M. Anil Yazici, City College of City University of New York, presenter*  
*Abhishek Singhal, City College of City University of New York, presenter*



Tuesday, January 15, 2013

**Event Number:** Session 656  
**Event Title:** Recycled Components of Asphalt Mixtures  
**Event Date:** Tuesday, January 15, 2013 4:15PM - 6:00PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** John E. Haddock, Purdue University, presiding

**Sponsored By:** Characteristics of Nonasphalt Components of Asphalt Paving Mixtures (AFK30)

**Presentations:** **Forensic Study on Cracking Distress of New Jersey's LTPP SPS-5 Sections: 30% RAP Versus Virgin Hot-Mix Asphalt**  
*Thomas A. Bennert, Rutgers University, presenter*  
*Ali Maher, Rutgers University, presenter*

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**Event Number:** Session 658  
**Event Title:** Statistical Methods Research for Transportation  
**Event Date:** Tuesday, January 15, 2013 4:15PM - 6:00PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Linda Ng Boyle, University of Washington, presiding

**Sponsored By:** Statistical Methods (ABJ80)

**Presentations:** **Evaluating Short-Term Traffic Volume Forecasting Models Based on Multiple Data Sets and Data Diagnosis Measures**  
*Lei Lin, State University of New York, Buffalo, presenter*  
*Qian Wang, State University of New York, Buffalo, presenter*  
*Adel W. Sadek, State University of New York, Buffalo, presenter*

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**Event Title:** Freight Systems and Marine Group Forum  
**Event Date:** Tuesday, January 15, 2013 5:45PM - 7:15PM  
**Event Location:** Shoreham, Regency Ballroom

**Presiding Officers:** Peter F. Swan, Pennsylvania State University, Harrisburg, presiding  
Thomas H. Wakeman, Stevens Institute of Technology, presiding

**Sponsored By:** Freight Systems (AT000)  
Marine (AW000)

**Event Description:** This reception provides an opportunity for those involved or interested in marine and freight transportation to meet or get reacquainted with individuals from industry, government, and academia. A no-host bar will be provided.



Tuesday, January 15, 2013

**Event Number:** Session 668  
**Event Title:** Intelligent Transportation Systems  
**Event Date:** Tuesday, January 15, 2013 7:30PM - 9:30PM  
**Event Location:** Marriott, Salon 2

**Sponsored By:** Intelligent Transportation Systems (AHB15)

**Presentations:**  
**Evaluation of Methodology for Scalable Dynamic Vehicular Ad Hoc Networks in Well-Calibrated Vehicular Mobility Test Bed**  
*Sandeep Mudigonda, Rutgers University, presenter*  
*Junichiro Fukuyama, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*

**Event Number:** Session 669  
**Event Title:** Pedestrian Design, Safety, and Behavior  
**Event Date:** Tuesday, January 15, 2013 7:30PM - 9:30PM  
**Event Location:** Marriott, Salon 2

**Presiding Officers:** Robert J. Schneider, University of California, Berkeley, presiding

**Sponsored By:** Pedestrians (ANF10)

**Presentations:**  
**Geospatial Analysis of Pedestrian and Cyclist Crashes in Urban Environment: Case Study**  
*Nadereh Moini, Safemobe Solution LLC, presenter*  
*Rongfang Liu, New Jersey Institute of Technology, presenter*

**Event Number:** Session 675  
**Event Title:** Energy Conservation and Emerging Technologies for Airfields  
**Event Date:** Tuesday, January 15, 2013 7:30PM - 9:30PM  
**Event Location:** Shoreham, Congressional

**Presiding Officers:** Brian D. McKeehan, Delta Airport Consultants, Inc., presiding

**Sponsored By:** Environmental Impacts of Aviation (AV030)  
Aircraft/Airport Compatibility (AV070)

**Presentations:**  
**Evaluating the Performance of Doweled and Isolation Joints at National Airport Pavement Testing Facility**  
*Felipe Blotta, Rowan University, presenter*  
*Yusuf A. Mehta, Rowan University, presenter*  
*Douglas Cleary, Rowan University, presenter*  
*Charles Cunliffe, Rowan University, presenter*  
*Akshay Joshi, Rowan University, presenter*

**Impact of Cracking on Load Transfer Efficiency of Rigid Airfield Pavements**  
*Charles Cunliffe, Rowan University, presenter*  
*Yusuf A. Mehta, Rowan University, presenter*  
*Douglas Cleary, Rowan University, presenter*  
*Akshay Joshi, Rowan University, presenter*

# Wednesday, January 16, 2013

Event Number:  
Event Title:  
Event Date:  
Event Location:

Session 709  
Innovative Management of Truck-Related Conflicts in Urban Settings  
Wednesday, January 16, 2013 8:00AM - 9:45AM  
Shoreham, Executive Lectern Session | Practice Ready Papers

Presiding Officers:

Kazuya Kawamura, University of Illinois, Chicago, presiding

Sponsored By:

Metropolitan Policy, Planning, and Processes (ADA20)  
Bicycle Transportation (ANF20)  
Freight Transportation Planning and Logistics (AT015)  
Urban Freight Transportation (AT025)

Event Description:

Trucking operations and deliveries generate significant benefits and impacts within urbanized areas. This session highlights recent research that addresses strategies that may better integrate trucking considerations with community goals.

Presentations:

**Commercial Vehicle-Bicycle Conflicts: A Growing Urban Challenge**

*Alison J. Conway, City College of City University of New York, presenter*  
*Oriane Thuillier, Ecole Nationale des Travaux Publics de l'Etat, France, presenter*  
*Esther Dornhelm, City College of City University of New York, presenter*  
*Nicholas E. Lownes, University of Connecticut, presenter*

**Parking in the City: Challenges for Freight Traffic**

*Miguel Angel Jaller, Rensselaer Polytechnic Institute, presenter*  
*Jose Holguín-Veras, Rensselaer Polytechnic Institute, presenter*  
*Stacey Darville Hodge, New York City Department of Transportation, presenter*

Event Number:  
Event Title:  
Event Date:  
Event Location:

Session 712  
Bus Transit Systems Operations  
Wednesday, January 16, 2013 8:00AM - 9:45AM  
Hilton, Georgetown East Lectern Session | Practice Ready Papers

Presiding Officers:

Dennis P. Hinebaugh, University of South Florida, presiding

Sponsored By:

Bus Transit Systems (AP050)

Presentations:

**Improve Rail Station Access Via Feeder Bus Network Optimization And ModeShifts**

*Zhaodong Huang, Ningbo University, presenter*  
*Rongfang Liu, New Jersey Institute of Technology, presenter*

Event Number:  
Event Title:  
Event Date:  
Event Location:  
Presiding Officers:  
Sponsored By:

Session 715  
Evaluating Drivers' Response to Urban Parking Parameters  
Wednesday, January 16, 2013 8:00AM - 9:45AM  
Hilton, International East Lectern Session | Practice Ready Papers  
Rachel R. Weinberger, Unaffiliated, presiding  
Transportation Demand Management (ABE50)

Presentations:

**Is the curb 80% full or 20% empty? Assessing the efficacy of San Francisco's parking experiment**

*Adam Millard-Ball, University of California, Santa Cruz, presenter*  
*Rachel R. Weinberger, Consultant, presenter*  
*Robert Cornelius Hampshire, Carnegie Mellon University, presenter*



Wednesday, January 16, 2013

**Event Number:** Session 722  
**Event Title:** Showcase of Diversified Automated People Mover  
**Event Date:** Wednesday, January 16, 2013 8:00AM - 9:45AM  
**Event Location:** Hilton, Columbia Hall 8 Lectern Session

**Presiding Officers:** Rongfang Liu, New Jersey Institute of Technology, presiding

**Sponsored By:** Major Activity Center Circulation Systems (AP040)

**Event Description:** This session presents an array of automated people mover technologies and their applications in diversified environments. The showcase demonstrates not only the flexibility of the applications but also their readiness for deployment.

**Presentations:**  
**Assessment of “Last Mile” Shuttle Corridors and Users in New Jersey**  
*Devajyoti Deka, Rutgers University, presenter*  
*Stephanie DiPetrillo, Rutgers University, presenter*

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**Event Number:** Session 723  
**Event Title:** Transportation Investments and Metropolitan Economies: Prioritization and Risk  
**Event Date:** Wednesday, January 16, 2013 8:00AM - 9:45AM  
**Event Location:** Hilton, Georgetown West Lectern Session | Practice Ready Papers

**Presiding Officers:** Rimon Rafiah, Economikr, Israel, presiding

**Sponsored By:** Transportation Economics (ABE20)  
Transportation Issues in Major U.S. Cities (ABE30)  
Transportation and Economic Development (ADD10)

**Presentations:**  
**Transit Improvements, Physical Agglomeration, and Productivity in U.S. Metropolitan Areas**  
*Daniel G. Chatman, University of California, Berkeley, presenter*  
*Robert B. Noland, Rutgers University, presenter*

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**Event Number:** Session 725  
**Event Title:** Safety: Performance, Data, and New Advances, Part 2 (Part 1, Session 724)  
**Event Date:** Wednesday, January 16, 2013 8:30AM - 10:15AM  
**Event Location:** Marriott, Salon 2 Poster Session

**Presiding Officers:** Mohamed A. Abdel-Aty, University of Central Florida, presiding

**Sponsored By:** Safety Data, Analysis and Evaluation (ANB20)

**Presentations:**  
**Investigating the Characteristics of Secondary Crashes on Freeways**  
*Hong Yang, Rutgers University, presenter*  
*Bekir Bartin, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*



Wednesday, January 16, 2013

**Event Number:** Session 726  
**Event Title:** Traffic Flow Theory and Characteristics, Part 2 (Part 1, Session 497)  
**Event Date:** Wednesday, January 16, 2013 8:30AM - 10:15AM  
**Event Location:** Marriott, Salon 2 Poster Session | Practice Ready Papers

**Sponsored By:** Traffic Flow Theory and Characteristics (AHB45)

**Presentations:**  
**Asymptotic Stability of Boundedly Rational Day-to-Day Dynamic**  
*Xuan Di, University of Minnesota, Twin Cities, presenter*  
*Henry X. Liu, University of Minnesota, Twin Cities, presenter*  
*Jong-Shi Pang, University of Illinois, Urbana-Champaign, presenter*  
*Xuegang (Jeff) Ban, Rensselaer Polytechnic Institute, presenter*

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**Event Number:** Session 735  
**Event Title:** Nonmotorized Travel Behavior  
**Event Date:** Wednesday, January 16, 2013 8:30AM - 10:15AM  
**Event Location:** Hilton, International Center Poster Session

**Presiding Officers:** Antonio Paez, McMaster University, Canada, presiding

**Sponsored By:** Traveler Behavior and Values (ADB10)  
Bicycle Transportation (ANF20)

**Presentations:**  
**Using Bicycles for Daily Commuting in Belo Horizonte, Brazil: Assessment of User Willingness Level with Spatial and Heterogeneity Considerations**  
*Xiaokun (Cara) Wang, Rensselaer Polytechnic Institute, presenter*  
*Dapeng Zhang, Rensselaer Polytechnic Institute, presenter*  
*David Magalhães, Rensselaer Polytechnic Institute, presenter*

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**Event Number:** Session 736  
**Event Title:** Transportation Demand Forecasting: Latest Research and Applications  
**Event Date:** Wednesday, January 16, 2013 8:30AM - 10:15AM  
**Event Location:** Hilton, International Center Poster Session

**Presiding Officers:** Thomas F. Rossi, Cambridge Systematics, Inc., presiding

**Sponsored By:** Transportation Demand Forecasting (ADB40)

**Presentations:**  
**Convergence Analysis of Markov Chain Monte Carlo Estimators of a Transportation Mode Choice Model**  
*Ricardo A. Daziano, Cornell University, presenter*  
*Chen Wang, Cornell University, presenter*





Wednesday, January 16, 2013

Event Number:  
Event Title:  
Event Date:  
Event Location:

Session 737  
Beneficial Results Based on Accelerated Pavement Testing  
Wednesday, January 16, 2013 10:15AM - 12:00PM  
Marriott, Maryland A Lectern Session

Presiding Officers:

Shelley M. Stoffels, Pennsylvania State University, presiding

Sponsored By:

Full-Scale Accelerated Pavement Testing (AFD40)

Presentations:

**Three-Dimensional Finite Element Modeling of Instrumented Airport Runway Pavement Responses**

*Hao Wang, Rutgers-State University of NJ, presenter*

*Imad L. Al-Qadi, University of Illinois, Urbana-Champaign, presenter*

*Silvia Portas, University of Cagliari, Italy, presenter*

*Mauro Coni, University of Cagliari, Italy, presenter*

Event Number:  
Event Title:  
Event Date:  
Event Location:  
Presiding Officers:

Session 743  
Green Asphalt Paving Technologies  
Wednesday, January 16, 2013 10:15AM - 12:00PM  
Marriott, Salon 3 Lectern Session  
Thomas A. Bennert, Rutgers University, presiding

Sponsored By:

Characteristics of Nonasphalt Components of Asphalt Paving Mixtures (AFK30)

Event Description:

In the transportation industry, there is a growing effort to embrace and implement sustainable technologies. These technologies have promised to save on natural resources, reduce energy consumption and emissions while not compromising performance. Such proposed sustainable technologies also have the potential to help reduce the cost of materials and the production process. A few of these technologies will be addressed their economic benefits.

Event Number:  
Event Title:  
Event Date:  
Event Location:

Session 751  
Advancements in Structural Engineering  
Wednesday, January 16, 2013 10:15AM - 12:00PM  
Shoreham, Ambassador Lectern Session | Practice Ready Papers

Presiding Officers:

Ronald D. Medlock, High Steel Structures, Inc., presiding

Sponsored By:

General Structures (AFF10)

Presentations:

**Optimization of Design Details in Orthotropic Steel Decks Subjected to Static and Fatigue Loads**

*Ye Xia, Rutgers University, presenter*

*Hani Nassif, Rutgers University, presenter*

*Eui-Seung Hwang, Kyung Hee University, South Korea, presenter*

*Daniel G. Linzell, Pennsylvania State University, presenter*



Wednesday, January 16, 2013

**Event Number:** Session 767  
**Event Title:** Understanding Our Ridership: A Detailed Look at Travel Characteristics  
**Event Date:** Wednesday, January 16, 2013 10:15AM - 12:00PM  
**Event Location:** Hilton, International East Lectern Session | AICP Certification Maintenance Session | Practice Ready Papers

**Presiding Officers:** Annette Williams, San Francisco Municipal Transportation Agency, presiding

**Sponsored By:** Paratransit (AP060)

**Event Description:** These five papers provide a perspective on understanding the travel needs of users of demand-responsive transit and tailoring service to meet those needs.

**Presentations:**

**Development of Transportation Skill Assessment Tool for Individuals on the Autism Spectrum to Aid in Finding Safe and Accessible Paratransit Services**  
*Cecelia Feeley, Rutgers University, presenter*  
*Patrick J. Szary, Rutgers University, presenter*  
*Ken Lee, Rutgers University, presenter*  
*Alisa Matlin, Rutgers University, presenter*  
*Louis Hoffman, Rutgers University, presenter*  
*Christopher Manente, Rutgers University, presenter*  
*Elizabeth Matheis, Psychological and Educational Consulting, LLC, presenter*

**Event Number:** Session 772  
**Event Title:** Emerging Research in Emergency Evacuation  
**Event Date:** Wednesday, January 16, 2013 2:30PM - 4:00PM  
**Event Location:** Marriott, Virginia A Lectern Session

**Presiding Officers:** Elise Miller-Hooks, University of Maryland, College Park, presiding

**Sponsored By:** Emergency Evacuation (ANB80T)

**Presentations:**

**Empirical Evacuation Response Curve During Hurricane Irene in Cape May County, New Jersey**  
*Jian Li, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*  
*Bekir Bartin, Rutgers University, presenter*  
*Shrisan Iyer, Rutgers University, presenter*  
*Jon Carnegie, Rutgers University, presenter*

**Modeling of Bus Transit Driver Availability for Effective Emergency Evacuation in Disaster Relief**  
*Ender Faruk Morgul, Rutgers University, presenter*  
*Ozlem Cavus, Rutgers University, presenter*  
*Kaan Ozbay, Rutgers University, presenter*  
*Cem Iyigun, Rutgers University, presenter*



Wednesday, January 16, 2013

Event Number:  
Event Title:  
Event Date:  
Event Location:

Session 793  
Innovations in Spatial Analysis Techniques and Applications in Transportation  
Wednesday, January 16, 2013 2:30PM - 4:00PM  
Hilton, Columbia Hall 7 Lectern Session

Presiding Officers:

Cesar Quiroga, Texas A&M Transportation Institute , presiding

Sponsored By:

Geographic Information Science and Applications (ABJ60)

Presentations:

**Realignment of Road Network Maps with GPS Tracking Data**

*Joshua Greenfeld, New Jersey Institute of Technology, presenter*

**Assist-me: Postprocessing Tool for Transportation Planning Model Output**

*Kaan Ozbay, Rutgers University, presenter*

*Bekir Bartin, Rutgers University, presenter*

*Shrisan Iyer, Rutgers University, presenter*

*Sandeep Mudigonda, Rutgers University, presenter*

Event Number:  
Event Title:  
Event Date:  
Event Location:

Session 800  
Advances in Network Modeling  
Wednesday, January 16, 2013 2:45PM - 4:30PM  
Hilton, International Center Poster Session

Presiding Officers:

Srinivas Peeta, Purdue University, presiding

Sponsored By:

Transportation Network Modeling (ADB30)

Presentations:

**Sequential Bayesian Model for Network Design Problem with Uncertainties (13-3168)**

*Xun Wang, Cornell University, presenter*

*H. Oliver Gao, Cornell University, presenter*

**Approximating Time Delays in Solving Continuous-Time Dynamic User Equilibria (13-2631)**

*Rui Ma, Rensselaer Polytechnic Institute, presenter*

*Xuegang (Jeff) Ban, Rensselaer Polytechnic Institute, presenter*

*Jong-Shi Pang, University of Illinois, Urbana-Champaign, presenter*

*Henry X. Liu, University of Minnesota, Twin Cities, presenter*

**Continuous-Time Dynamic System Optimal for Single-Destination Traffic Networks Considering Queue Spillbacks (13-2752)**

*Rui Ma, Rensselaer Polytechnic Institute, presenter*

*Xuegang (Jeff) Ban, Rensselaer Polytechnic Institute, presenter*

*Jong-Shi Pang, University of Illinois, Urbana-Champaign, presenter*



Wednesday, January 16, 2013

**Event Number:** Session 818  
**Event Title:** Innovations in Carsharing Operations  
**Event Date:** Wednesday, January 16, 2013 4:30PM - 6:00PM  
**Event Location:** Hilton, Georgetown East Lectern Session

**Presiding Officers:** Scott LeVine, Imperial College London, United Kingdom, presiding

**Sponsored By:** Emerging and Innovative Public Transport and Technologies (AP020)

**Presentations:** **Dynamic Transit Service Through Open Mode Integrated Transportation System**  
*Huiming M. Yin, Columbia University, presenter*  
*Liang Wang, Columbia University, presenter*  
*Paul Maurin, Columbia University, presenter*

# Thursday, January 17, 2013



**Event Number:**

Session 844

**Event Title:**

Shortest Paths, Stochastic Routing, and Network Design

**Event Date:**

Thursday, January 17, 2013 10:15AM - 12:00PM

**Presiding Officers:**

Lili Du, Illinois Institute of Technology, presiding

**Sponsored By:**

Transportation Network Modeling (ADB30)

**Presentations:**

**Sequential Bayesian Model for Network Design Problem with Uncertainties**

*Xun Wang, Cornell University, presenter*

*H. Oliver Gao, Cornell University, presenter*