



RESEARCH NEWS

SPRING 2012

REGION II UNIVERSITY TRANSPORTATION RESEARCH CENTER

DIRECTOR'S MESSAGE

I am pleased to report continued progress in our programs and initiatives. On June 29, 2012, we held a successful kick-off meeting of the new USDOT grant. The meeting attended by RITA's staff and representatives of our consortium institutions focused on the planning and conduct of our programs including how the consortium will work together to achieve success.

As evidenced in this issue of our newsletter, we have had a very active and fruitful spring 2012. On June 1, 2012, we hosted a symposium on Connected Vehicle Test-Bed Development & Integration Workshop. The purpose of this symposium, held on the campus of the University at Buffalo and attended by approximately 80, was to push the envelope regarding test beds for connected vehicles. The successful event helped build a strong working network among higher education institutions, government and industry for next generation technology, and at highlighting some of the Northeast region's leading research and researchers in the field of connected vehicles and develop a series of next-step scenarios.

The Advanced Institute of Transportation Education scholarships were awarded to 12 students across our institutions. The students will receive each up to \$25,000 from UTRC towards completing a Master degree in a field closely related to Transportation. In addition, we were proud to award 4 fellowships for the seventh year of the September 11th Memorial Program for Regional Transportation Planning - Academic Initiative. The recipients will receive up to \$34,000 from NYMTC and UTRC to pursue a project in the offices of NYMTC or a NYMTC Member Agency. The internships will challenge students to develop creative solutions to difficult problems, providing a benefit to the region while enhancing their educational experiences.

We're working hard to make good progress on all our programs. I thank all of you for your continued support and the UTRC staff wishes you a nice Summer 2012.

Camille Kamga



NEWS & NOTES

RESEARCH NEWS

RECENT EVENTS

UPCOMING EVENTS

RESEARCH HIGHLIGHTS
& PUBLICATIONS

IN THIS ISSUE

NEWS & NOTES

- > RITA-Kick Off Meeting at UTRC
- > Dr. Kamga re-elected as the Board of Directors of ITS-NY member for another 3 years!
- > News from Bellagio, Italy by Dr. Paaswell
- > UTRC's Project "On the Go! gets recognition at ITS 19th Annual Meeting
- > UTRC Sponsored the 2012 ITS-NY Best Student Paper Essay
- > UTRC Hosts French Visitors
- > The CUNY ITS Helped trained Abu Dhabi DOT Personnel
- > Professor Daus in News

AWARDS & RECOGNITIONS

- > Lighting Research Center's Senior Research Scientist, John Bullough Appointed Chair of TRB Committee on Visibility
- > Dr. Salvatore Salamone, Assistant at the University at Buffalo/SUNY was awarded the UTRC Advanced Technology Initiative Grant
- > Student Paper Award

UTRC FACULTY PROFILE

Dr. Mitchell L. Moss, Director, Rudin Center for Transportation Policy & Management

RECENT EVENTS

- > Legislative Forum - Taxi & Livery Issues of Today & Tomorrow
- > Event Recap: Walking and the Life of the City Symposium
- > Lunch with Congressman Schuster
- > Connected Vehicle Test-Bed Development & Integration Workshop
- > Spring 2012 Series- UTRC Visiting Scholar Seminars
 - >Dr. Clifford Winston presented on "Performance and Policy Reform of the U.S. Transportation System"
 - >Dr. Daniel Graham presented on "Wider economic benefits of transport investment and the role of agglomeration economies"
 - >Oliver Hartleben Presented on "Connecting the Dots: Future Housing Development in Post-recession America"

UPCOMING EVENTS

- > [August 6, 2012](#) - Intelligent Transport Systems (ITS) in Hong Kong: Recent Development and Future Applications
- > [August 21-24, 2012](#) - SMT 2012 Conference: NDT/NDE for Highways and Bridges: Structural Materials Technology (SMT)

RESEARCH HIGHLIGHTS

- > UTRC Sponsored Completed Projects
 - > Value Pricing and Traffic Reduction Incentives
 - > Develop Consultant Management Estimation Tools
- > NYSDOT Research Reports
 - > Field evaluations of ShapeAccelArray In-Place MEMS inclinometer strings for subsurface deformation monitoring
 - > New York City Park & Ride Study Final Report
 - > Mainstreaming climate change adaptation strategies into NYS Department of Transportation Operations: final report
- > Dr. Adel Sadek' recently completed a poject titled "An Evaluation of Likely Environmental Benefits..."
- > New Funding/Programs
 - > UTRC Awards New Research Projects!
 - > New Research Funding at the Voorhees Transportation Center
 - > Research News from the Lighting Research Center at RPI
 - < Research News from University at Albany/SUNY

NEW PUBLICATIONS AND PRESENTATIONS

RITA-KICK OFF MEETING AT UTRC

On June 29th, 2012, representatives from the Research and Innovative Transportation Administration (RITA) - Dr. Kevin Womack, Associate Administrator for Research, Development and Technology, Denise Dunn, our grant administrator for the new award, and Lydia Mercado, our grant administrator for the award under SAFETEA-LU visited UTRC at the campus of the City College of New York.

This UTC Kick-off meeting was one of the 22 UTC's visits held across the nation since the UTC grant has been awarded in January 2012. UTRC was successfully awarded \$3.5 million to conduct transportation research, education and workforce development, and technology transfer programs to address the USDOT strategy goals and Region 2 transportation needs.

The Kick-off meeting was well attended by representatives from our consortium, grant administrators from the Research Foundation of CUNY, UTRC staff, and Research students.

UTRC Director, Camille Kamga, commenced the meeting with an overview of the transportation challenges faced by our region and the center's structure. He also addressed the next scheme for the grant implementation

plan through the center's research, education and workforce development, and technology transfer activities. Representatives of our university consortium were provided an opportunity to brief the RITA on their research projects and capabilities at their individual institutions.

In his remarks, Dr. Womack emphasized on the importance of the value of research and its implementation. He acknowledged all relevant research funding but highlighted the importance of bringing more in-house research projects and programs, which benefit our region and community.

The afternoon session, lead by Denise Dunn and Lydia Mercado, focused on the grand administration and the new UTC reporting requirements for a proper execution and allocation of the funds.



NEWS FROM BELLAGIO, ITALY

MAY 6-11, 2012

I was asked to participate in a small workshop sponsored by the Volvo Research and Education Foundation – held at the Rockefeller Estate in Bellagio, Italy on beautiful Lake Como last May. About 20 participants from around the globe were invited to discuss the broad theme, “Financing Urban Access”. The meeting soon became one where problem definition became critical. Urban access for whom? How does nation evolution impact the answer (developed, undeveloped)? And whose responsibility is financing? It became clear that the recent EU initiative addressing mobility deprivation was one that has been ongoing in the US for decades – and much was in the literature to support it. I felt that a stronger point was how are our urban areas evolving and how are IT and smart devices changing the daily behavior of both the individual and the transport or energy supplier. I also felt that all must be discussed in the constraint of sustainability. While the meeting concluded with the determination that innovative new metrics will be needed for urban access, financing becomes more of a problem. There was some discussion concerning current tools, congestion charges, gas taxes, etc., but the discussion noted that political enlightenment and support must be brought into place in order to achieve any real change in making activities and daily processes available to those who find them inaccessible. Simply put, as our urban areas around the globe are becoming rapidly larger, how do we insure that all of our citizens have access to education, health care, housing, food and all of daily needs; what roles will needed transportation and simultaneous land use issues have to play and will we be able to implement the changes we see as necessary? Profound questions in a world where urban areas have vastly different characteristics, but whose solutions are urgently needed. I will write more of this as the year progresses.

Robert Paaswell, Director Emeritus, UTRC



Dr. Robert E. Paaswell at Bellagio, Italy

DR. KAMGA RE-ELECTED AS A MEMBER OF THE BOARD OF DIRECTORS OF ITS-NY FOR ANOTHER 3 YEARS!

The members of ITS-NY have re-elected Dr. Camille Kamga, our director, to a new 3-year Board Term, commencing July 1, 2012 and carrying through June 30, 2015. These election results were announced during the Closing Luncheon of the ITS-NY Annual Meeting held on June 7-8, 2012 at Saratoga Springs, NY.

Congratulations Camille!

UTRC'S PROJECT “ON THE GO! TRAVEL STATION/KIOSK” WAS SELECTED AS ONE OF THE “ITS-NY 2012 PROJECT OF THE YEAR”

The Intelligent Transportation Society of New York (ITS-NY) announced the 2012 ITS-NY Project of the Year Winners at its Nineteenth Annual Meeting and Technology Exhibition held on June 7-8, 2012 in Saratoga Springs, NY.

“These winning projects feature Intelligent Transportation Systems (ITS) and technologies at work in New York State to improve traveler mobility and safety, as well as the efficiency of New York State’s transportation system across all modes of travel,” said Dr. Isaac Takyi, ITS-NY President.



Dr. Kamga and Andy Bata (NYCT) receiving the “On The Go” Project of the Year Award Plaque from Joe Tario (NYSERDA)

The Metropolitan Transportation Authority, New York City Transit, Metro-North Railroad, Long Island Rail Road, University Transportation Research Center, Cisco Corporation, Comark, and Antenna Design piloted a “first in the world” interactive, touch screen travel information kiosk that is “super user friendly,” has a modem, advanced design and an innovative concept of centrally feeding to it real-time information about transit services in New York City. The full rollout is being planned for 468 New York City subway stations.

Visit www.ITS-NY.org for more information.

UTRC SPONSORED THE 2012 ITS-NY BEST STUDENT PAPER ESSAY

UTRC sponsored the 2012 ITS-NY Best Student Paper Essay. The winner was announced at the ITS-NY 19th Annual Meeting and Technology Exhibition in Saratoga Springs, NY. Mr. Graziano Fiorillo, a graduate student at the City College of New York was the recipient of this award for his paper entitled, “Data Mining Algorithm for the Analysis of Overweight Vehicles Using WIM Technology”. Mr. Fiorillo presented his winning paper at the ITS Annual meeting’s 4th Panel, moderated by Dr. Camille Kamga, Director of UTRC. In addition to a networking experience with transportation experts, Mr. Fiorillo received a \$500 stipend along with a complimentary 2012 ITS-NY Annual Meeting registration, travel and lodging benefits to attend all technical sessions presented at the Annual meeting.

Visit www.ITS-NY.org for more information.



Mr. Fiorillo, accompanied with Dr. Kamga, receiving the “Best Student Paper Essay” Plaque from Joe Tario (NYSERDA)

UTRC HOSTS FRENCH VISITORS

In April, UTRC welcomed seven master's degree-level students with specialties in sustainable transportation and civil engineering from the Ecole Nationale des Travaux Publics de l'Etat (ENTPE) in Lyon, France, which is a highly competitive engineering school in France. The students are all participants in a national civil service program which requires that they complete a 20-week internship either in France or abroad.

The internship must be related to a specialty that the students have to choose in their first year (civil engineering, environment, urban planning, transport engineering, or building engineering). The internship occurs after the second year of classes out of a three year program. Their salary and expenses are covered by the French government and in exchange, the students are required to work in French civil service positions for eight years after they graduate.

These students, Luis Blanche, Melina Christina, Simon Dupin, Emmanuelle Lezais, Paul Maurin, Arnaud Parot, and Oriane Thuillier, all wanted to work in New York and contacted UTRC in the Fall of 2011 to request an internship at no cost to the Center. In addition, Alexandre Brégeon had contacted Dr. Michel Ghosn of CCNY's Civil Engineering department to request an internship directly with him.

Nina Marousek, Associate Director and International Student Advisor of the Office of International Student & Scholar Services, was instrumental in helping the students take advantage of this opportunity. Since City College is approved as a U.S. Department of State sponsor for the J-1 Exchange Visitor Program and Ms. Marousek is the Responsible Officer (RO), she was able to generate the Certificate of Eligibility forms necessary to receive the J-1 visas at the US Embassy. J-1s can be used for short term research as well as other opportunities including enrollment in a bachelor's or master's degree program in a U.S. academic institution or participation in research/teaching positions. Since the UTRC consortium is hosted by City College, the French students were able to be placed at any of the member institutions, while under

CCNY sponsorship, to be engaged in short-term research internships.

In addition to contributing to the professor's research and papers, the students are also required by their school to produce a lengthy technical and sociological report summarizing their internship pursuits. Upon returning to ENTPE in fall 2012, the students will present their work to a jury as part of their oral exams. The sociological part of the report requires the student to learn about and document the organizational structure of the office in which they are interning. In addition, the student must write this report in the language of their sponsor.

UTRC also hosted 2 interns from ENTPE in past years, Nhat Bui in 2010 and Pierre-Emmanuelle Fatison in 2011.

The students are researching the following topics:

- Luis Blanche for Columbia University Ph.D. candidate Liam Wang, Department of Civil Engineering at Columbia University; Open- Mode Integrated Transportation System (OMITS)



French Interns with Penny Eickemeyer, Associate Director for Research at UTRC and Nina Marousek, Associate Director and International Student Advisor at CCNY

- Alexandre Brégeon for Dr. Michel Ghosn, Professor of Civil Engineering, CCNY; Cost of Damage to Highway Networks From Heavy Trucks

- Simon Dupin for Dr. Zhan Guo, Assistant Professor at Robert F. Wagner School of Public Service at NYU; Parking and Travel Behavior Analysis

- Melina Christina for Dr. José Holguín-Veras, Professor of Engineering at RPI; transportation demand modeling

- Emmanuelle Lezais for Dr. Alison Conway, Assistant Professor of Civil Engineering at CCNY; Feasibility of and Benefits for Shifting Last Mile Freight Deliveries in NYC from Trucks/Vans to Human-powered Tricycles

- Paul Maurin for Dr. Huiming Yin, Assistant Professor of Civil Engineering at Columbia University; Open- Mode Integrated Transportation System (OMITS)

- Arnaud Parot for Dr. Michel Ghosn, Professor of Civil Engineering, CCNY; Cost of Damage to Highway Networks From Heavy Trucks

- Oriane Thuillier for Dr. Alison Conway, Assistant Professor of Civil Engineering at CCNY, Interactions between Freight Vehicles and Bicycles on the Curbside in New York City.

CUNY ITS HELPED TRAIN ABU DHABI DEPARTMENT OF TRANSPORT PERSONNEL

The Abu Dhabi Department of Transport (Abu Dhabi DoT) and The CUNY Institute for Transportation Systems (CUNY ITS) in the Grove School of Engineering at The City College of New York, signed a Memorandum of Understanding on June 4, 2012 for a six weeks training which was ended at a closing ceremony, held on July 2nd at CCNY. The MOU was aimed at providing continuous development support in areas of transport management and technical programs to targeted United Arab Emirates (UAE) and Abu Dhabi DoT students, executives and staff.

In order to provide excellence in transport planning, Abu Dhabi DoT recognizes that its employees' skill levels must be of the highest caliber. They have, therefore, developed a scholarship program targeting leading students from across the region and providing them with Bachelor's and Master's training. In addition, application-driven programs like on-the-job training are in place to fast track the development of

young Emiratis joining the transport Industry.

The CUNY ITS was chosen for the high quality of its training and development program, based on a Lean Learning approach, and backed by extensive experience in research and management development. In the words of H. E. Zayoun Alameri, Abu Dhabi DoT executive director of support services, "the CUNY ITS is a center for excellence in transportation research and development...possessing the expertise to help us develop transportation planning capabilities of the highest caliber."

The agreement is a significant opportunity for the parties, contributing to knowledge and development in the transport domain in the fast growing region of the Persian Gulf and enriching the already diverse student base of the CUNY ITS.

For the full article, *authored by Ellis Simon, Director of Public Relations at CCNY*, please visit the CCNY website at:

<http://www1.ccny.cuny.edu/advancement/news/CUNY-ITS-to-Help-Train-Abu-Dhabi-Department-of-Transport-Personnel.cfm>



Photo Credit: Ellis Simon, CCNY

CCNY Provost Martin Mostkovits (left) and H.E. Mohamed Hareb Al Youssef, executive director of the Abu Dhabi Department of Transport (DoT), sign memorandum of understanding calling for the CUNY Institute for Transportation Systems to provide training for Abu Dhabi DoT personnel and students from the United Arab Emirates.

Prof. Matthew Daus In News

PROFESSOR DAUS CHAIRS THE 1ST INTERNATIONAL TAXI CONFERENCE IN ABU DHABI

Matthew Daus was honored to Chair and speak at

the 1st International Taxi Conference of the International Association of Public Transport (for the Middle East and



Left to Right, Matthew W. Daus, President of International Association of Transportation Regulators (IATR), and representatives from countries including: Mowasalat, Doha-Qatar; Chennai, India; Japan and Paris, France.

North Africa – MENA) held in March 2012 in Abu Dhabi, United Arab Emirates . The conference was well attended by Middle Eastern, European, Asian and African taxi regulators and industry. Just a sampling included representatives from: Singapore, Dubai, Belgium, Japan, Lebanon, Moscow and India. Professor Daus served as Chairman of an informative session entitled “Organizational and Legal Frameworks for Better Taxi Services,” which included presentations of taxi regulators from Singapore and Abu Dhabi, an industry operator from Moscow, Russia and a transportation expert from Beirut, Lebanon. The various panelists covered a wide spectrum of regulatory evolution in the works, from an almost outright lack of regulation and oversight in Moscow, to a deregulated fare/rate system with strict licensing standards in Singapore, to a closed and tightly controlled system in Abu Dhabi, to a shared taxi program operating tantamount to a mini-bus or public transportation system in Beirut.

There was a healthy exchange of ideas on the nature of an ideal taxi system, as well as operational and legal paradigms, coupled with discussion of the practical reality of achieving those ideal regulatory goals. The conference highlighted the importance of the taxi mode as being an often overlooked part of the public transportation system as

either an inter-modal connection or as an outright primary mode of private transportation where public transit is deficient or non-existent.

For more details on this conference, please visit the [TLC website](#).

PROFESSOR MATTHEW DAUS VISITS AUSTRALIA - ADDRESSES SMART PHONE APPS!

In April 2012, Mr. Daus was invited to deliver two speeches at the annual Australian Taxi Industry Association's conference on the Gold Coast in beautiful Surfer's Paradise. His presentation was entitled: “There's An App for That!”

In his presentation, he mentioned that all Apps seek to use GPS location technology and varied formats to basically help find and deliver the nearest taxicab, sedan or limousine. There are at least three (3) types of App models that have been presented and developed around the United States and abroad: (1) electronic hail model;(2) dispatch model; (3) company brand model.

His presentation highlighted several issues that are presented by the use of smart phones: (1) customer service and protection; (2) public safety; and (3) business accountability. Prof. Daus then discussed the issues and challenges; regulators are facing to interpret rules for the smart phone apps. He mentioned that it is only a matter of time before these Apps are perfected, tested and receive industry, regulatory and consumer acceptance and use. The issue is of such importance and interest that we will be expanding upon the session held in Australia at our 25th Anniversary Annual Conference of the International Association of Transportation Regulators (IATR) in November 2012. The conference will be held at IATR's corporate birthplace – Washington, D.C. – from November 15th through the 17th, and we will be allocating an entire day's sessions to innovative payment processing solutions and Smart Phone Apps, with engagement by and between regulators, technology companies and industry stakeholders. The conference is now open for early bird registration and membership renewal, and you can do so now to reserve your spot by visiting the home page of our website www.iatr.org.

AWARDS & RECOGNITIONS

LIGHTING RESEARCH CENTER'S SENIOR RESEARCH SCIENTIST, JOHN BULLOUGH APPOINTED CHAIR OF TRB COMMITTEE ON VISIBILITY

John Bullough, Senior Research Scientist and Adjunct Assistant Professor at Rensselaer Polytechnic Institute's Lighting Research Center (LRC), was appointed chair of the Transportation Research Board (TRB) Committee on Visibility beginning April 15. Dr. Bullough previously served as a member of the Visibility Committee from 2003-2011. This committee is concerned with those factors which affect visibility in all forms of transportation, including relevant human, vehicular and environmental considerations, as well as safety, economics and energy conservation.

Website: <http://www.trb.org/AND40/AND40.aspx>

DR. SALVATORE SALAMONE, ASSISTANT AT THE UNIVERSITY AT BUFFALO/SUNY WAS AWARDED THE UTRC ADVANCED TECHNOLOGY INITIATIVE GRANT

Dr. Salamone has been awarded with a grant, through the UTRC Advanced Technology Initiative program, to investigate an innovative monitoring system for corrosion damage assessment of steel tendons in post-tensioned structures. The monitoring system is based on embedded arrays of piezoelectric transducers to generate and receive Guided Ultrasonic Waves (GUW) throughout the tendon. Advanced algorithms will be developed to enable the monitoring of the corrosion evolutionary path including. Accelerated corrosion tests are currently undertaken to provide insights on the underlying corrosion mechanisms.

JONATHAN MUCKELL, PH.D. CANDIDATE IN THE COLLEGE OF COMPUTING AND INFORMATION AT THE UNIVERSITY AT ALBANY DEFENDED HIS PROPOSAL

Jonathan Muckell, Ph.D. candidate in the College of Computing and Information at the University at Albany, successfully defended his proposal, Development and Evaluation of Trajectory Compression Algorithms, and will begin work on this dissertation. Below is short

description of his proposed dissertation topic.

GPS-equipped mobile devices such as smart phones and in-car navigation units are collecting enormous amounts spatial and temporal information that traces a moving object's path. The popularity of these devices has led to an exponential increase in the amount of GPS trajectory data generated causing three major problems. First, large data is expensive and time-consuming to transmit over a mobile network. Second, database queries and data mining applications often require computationally expensive data aggregation to extract useful patterns and information. Third, the size of the data often results in the storage of redundant data and noise; causing wasted space and slow disk IO time. Numerous compression algorithms have been proposed to address these three issues by reducing the size of trajectory data sets; however these methods often lose important information essential to location-based applications such as object's position, time and speed. This empirical research quantifies the effectiveness of compression across numerous data sets and error metrics. Based on the knowledge learned from the evaluation of compression algorithms in the literature, a new approach called the Spatial QUality Simplification Heuristic (SQUISH) is introduced that maintains a high degree of accuracy, while allowing for improved run-time performance, and usability. Performance of this new approach is evaluated exhaustively to other algorithms defined in the literature across a wide range of error metrics.

STUDENT PAPER AWARD

Ph.D. candidate Alireza Farhidzadeh, received the student award at the 54th Acoustic Emission Working group held Princeton, NJ May 21-21, 2012 for the paper entitled: “Introducing Sifted b-Value Analysis and a New Crack Classification for Monitoring Reinforced Concrete Shear Walls by Acoustic Emission”. He is studying for his Ph.D. in Civil engineering under the supervision of Dr. Salvatore Salamone in the Department of Civil, Structural and Environmental Engineering at the University at Buffalo. His primary research interests include structural health monitoring (SHM) of complex structures using acoustic emission (AE) technique.



Thomas F. Drouillard (past chairmans of AEWG) with Alireza Farhidzadeh.

DR. MITCHELL L. MOSS

DIRECTOR, RUDIN CENTER FOR TRANSPORTATION POLICY & MANAGEMENT
HENRY HART RICE PROFESSOR, URBAN PLANNING,
NEW YORK UNIVERSITY'S WAGNER SCHOOL OF PUBLIC SERVICE

Professor Mitchell L. Moss is the Director of the Rudin Center for Transportation and Henry Hart Rice Professor Urban Policy and Planning at New York University's Wagner Graduate School of Public Service. He teaches and does research on the role of technology and transportation in metropolitan regions, and has recently co-authored a series of reports on the emergence of the "super commuting."

Prior to becoming director of the Rudin Center, Professor Moss served as director of NYU's Taub Urban Research Center from 1987 to 2003. He has directed research projects for the National Science Foundation, U.S. Department of Commerce and leading private corporations. Professor Moss has been on the faculty of NYU since 1973 and served as Chairman of NYU's Interactive Telecommunications Program in the Tisch School of the Arts from 1981 to 1983.

Professor Moss's articles have appeared in The New York Times, San Francisco Chronicle, New York Post, New York Daily News, and The New York Observer. From 1983-1994, he served as Deputy to the Chairman of Governor Cuomo's Council on Fiscal and Economic Priorities. In 2001, he served as an advisor to the mayoral campaign of Michael R. Bloomberg. He has testified before the U.S. House of Representatives' Committee on Transportation and Infrastructure on the federal policies to aid communities in recovering from disasters.



Dr. Mitchell Moss, NYU

LEGISLATIVE FORUM - TAXI & LIVERY ISSUES OF TODAY & TOMORROW

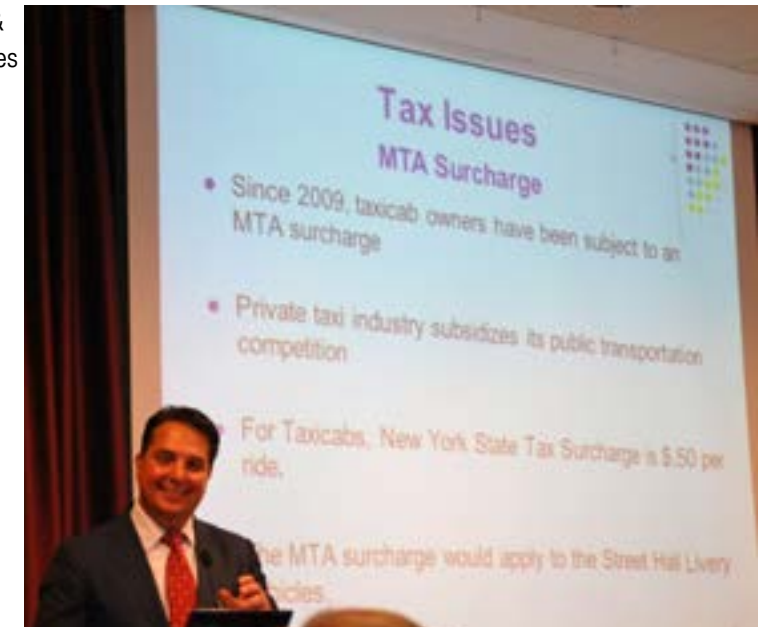
The University Transportation Research Center (Region 2, NY & NJ) and the IATR, sponsored a legislative forum on Taxi & Livery Issues of Today & Tomorrow on June 26th 2012. The forum was held at the Baruch College (NYC).

Matthew Daus, former Taxi & Limousine Commissioner and a Distinguished Lecturer at CUNY's Transportation Research Center, moderated the panel discussion among key New York legislators, including: New York Senator Martin Golden, Assemblyman Micah Kellner, and NYC Council Transportation Committee Chairman James Vacca.

Many issues were discussed, including the potential regulation of Smartphone Apps, and panel members indicated they would consider and possibly enact a version of the IATR model regulation to be developed. The webinar, including the chapter on "Smartphone Apps" (see 63:48 of the recording), is available at <http://totalwebcasting.com/live/utrc/>.

The event photographs and webcast can be accessed by visiting the event page at :

<http://utrc2.org/events/events.php?viewid=329>



Mathew Daus Moderated the Legislative Forum



Left to Right, NYC TLC Commissioner Elias Arout; IATR President Matt Daus; Camille Kamga, Acting Director of the University Transportation Research Center (UTRC); NY State Senator Marty Golden; NYC Council Member James Vacca; NYS Assemblyman Micah Kellner.

EVENT RECAP: WALKING AND THE LIFE OF THE CITY SYMPOSIUM

UTRC co-sponsored the Walking and the Life of the City symposium, held on June 7th at the Rudin Center. The event put walking back at the center of urban life by presenting research from six transportation scholars on why people walk, its role in urban life, and how walking is likely to change in the future.

The event was led off by journalist Tom Vanderbilt, who gave a keynote about the challenges of walking in America, while showing that even in the suburbs, the need for more walking and better pedestrian infrastructure exists. He set the stage for the research presentations, which presented some of the latest findings on walking in transportation research.

The prominent scholars were: - Kevin Manaugh from McGill University in Montreal, Dick Ettema, Associate Professor at Utrecht University in the Netherlands, David King, Assistant Professor of Urban Planning at Columbia University, Andrew Mondschein, research fellow at the NYU Rudin Center, Sarah Kaufman, also an NYU Rudin Center research associate, and Robert Schneider, a post-doctoral researcher at UC Berkeley and UC Davis, who wrapped the symposium by describing future walking research needs. He described the need for going beyond traditional travel surveys and counting all walking trips, including the ones that often get missed.

For more details, please visit the NYU Rudin Center's [Webiste](#).



LUNCH WITH CONGRESSMAN SCHUSTER

On May 14, Mitchell Moss, the Director of the Rudin Center for Transportation Policy and Management, hosted a luncheon for Pennsylvania Congressman Bill Shuster, who is on the House committee that is dealing with the Transportation Authorization bill. Shuster is a Republican who understands the importance of transportation and other government infrastructure to the nation's economy and society. The luncheon was well attended by a wide diversity of people in transportation and other infrastructure.

Schuster discussed the importance of transportation and then went on to talk about what is happening with the Transportation bill and other Congressional matters. He noted that Adam Smith (often held up as the godfather of free-enterprise capitalism) argued that there were three essential functions of government--security, justice and transportation. (Smith's "An Inquiry into the Nature and Causes of the Wealth of Nations" was first published in 1776.) . He then went on to say that for 200 years the federal government has supported expansion and improvement of the nation's transportation network, often under Republican presidents. What must be done now is to rebuild public and political support for improving the nation's public infrastructure, and to come to a long-term agreement as to how to pay for this. He also said that the project approval and implementation process needed to be greatly streamlined, aimed at reducing the time it takes to do a project by half. This would, he noted, save at least 10 to 15% of project costs resulting from inflation. For another account of this meeting, see Andrea Bernstein in Transportation Nation:



Dr. Kanga in conversation with Congressman Shuster
<http://transportationnation.org/2012/05/14/shuster-president-will-sign-transpo-bill-in-the-fall/>

CONNECTED VEHICLE TEST-BED DEVELOPMENT & INTEGRATION WORKSHOP

On June 1, 2012, University Transportation Research Center (UTRC) at the City College of New York in collaboration with University at Buffalo, Rutgers University/ State University of New Jersey, Calspan Corporation and Silver Lining sponsored a conference on the "Connected Vehicle Test-Bed Development & Integration Workshop". The aim of the workshop was to provide the perspective of the auto industry, IT & Telecom industry, academic community and government on Connected Vehicles and IntelliDrive systems. It also aimed to build a strong working network among the participants for next generation technology, and to highlight some of the Northeast region's leading research and researchers in the field of connected vehicles with an aim towards developing a series of next-step scenarios.

The symposium proceedings are available on the conference website; a Video and Photo Gallery and Speaker's presentations are available for download.
www.connectedvehicleworkshop.com



From (l) to (R): Timothy Talty, Technical Fellow, Research and Development General Motors Corporation & Dr. Michael Thurston, Associate Research Professor, Golisano Institute for Sustainability & Technical Director, Center for Integrated Manufacturing Studies Rochester I



David E. Pickeral, Global Development Executive, Intelligent Transportation Systems, IBM Smarter Transportation

SPRING 2012 SERIES-UTRC VISITING SCHOLAR SEMINARS

**DR. CLIFFORD WINSTON PRESENTED ON
"PERFORMANCE AND POLICY REFORM OF THE U.S.
TRANSPORTATION SYSTEM"**

Dr. Winston presented a Visiting Scholar Seminar on April 13th on the topic, "Performance and Policy Reform of the U.S. Transportation System". The seminar was very well attended by transportation experts in academia and private & public sectors.

Dr. Winston is a senior fellow in the Brookings Institution's Economic Studies program, has been with Brookings since 1984. He is an applied micro-economist who specializes in the analysis of industrial organization, regulation, and transportation.

In his presentation, he assessed the performance of the urban and intercity components of the U.S. transportation system on efficiency and equity grounds. After identifying pervasive inefficiencies in how the current system is managed and operated, he outlined public sector reforms to improve the system's performance and concluded that such reforms are inadequate. Instead, he argued that privatization and deregulation offer the potential to greatly improve Americans' satisfaction with their transportation services.

To access Dr. Winston's presentation and seminar video, please follow the link below!

<http://www.utrc2.org/events/events.php?viewid=320>



Dr. Clifford Winston, Brookings Institution



Dr. Daniel Graham, Imperial College, London

**DR. DANIEL GRAHAM PRESENTED ON
"WIDER ECONOMIC BENEFITS OF
TRANSPORT INVESTMENT AND THE
ROLE OF AGGLOMERATION ECONOMIES"**

On April 27th, 2012, Dr. Graham delivered a presentation at the UTRC Visiting Scholar Seminar Series and shared his expertise on transportation economics. Dan Graham is a Reader in Transport Economics and Statistics in the Centre for Transport Studies at Imperial College London. He specialises in the statistical modelling of transport systems. His main research themes are concerned with the implications of transport investment for productivity and economic growth; modelling efficiency in public transport provision; and with the wider consequences of travel demand patterns particularly in relation to safety, congestion, and environmental impacts.

In his presentation, he provided an overview of the measurement of wider economic impacts in transport appraisal focusing in particular on the role of agglomeration economies. He described how agglomeration effects can be estimated and included within a standard Benefit Cost Analysis

framework to assess the productivity benefits of investment. Examples from around the world were used to illustrate the potential significance of agglomeration externalities. The talk also discussed limitation of the existing approach, particularly in relation to econometric modelling, and suggested future areas for research.

To access Dr. Graham's presentation and seminar video, please follow the link below!

<http://www.utrc2.org/events/events.php?viewid=324>

**OLIVER HARTLEBEN PRESENTED
ON "CONNECTING THE DOTS: FUTURE
HOUSING DEVELOPMENT IN
POST-RECESSION AMERICA"**

Oliver Hartleben, a Guatemalan architect and city planner who recently graduated from the Harvard Kennedy School with a public administration degree, presented a seminar on May 18th, 2012 on the Future Housing Development in Post-recession America. Before coming to Boston, he worked for seventeen years with the City of Guatemala, lastly as Director of Urban Planning, where he oversaw the complete revision of the zoning and subdivision ordinances and the planning of the city's first bus rapid transit line.

Mr. Hartleben's presentation focused on the subprime mortgage crisis that plunged the world into the Great Recession of 2008 which had a devastating effect on the US housing market, leading many to question if the market will return to pre-crisis levels, or whether a paradigm shift has occurred that will pave the way to a 'new normal'.

In his talk, he presented his argument that the US housing market will increasingly focus on the infill, retrofit, and redevelopment of inner suburbs and neighborhoods, where the new demand for walkability and urban amenities can be better combined with the latent demand for single family homes, while at the same time being less likely to encounter opposition by local officials, homebuilders, and current neighbors. This new form of development, which we call 'Pedestrian-oriented development', or POD, will constitute the largest opportunity to shift the pendulum back towards higher densities and more responsible urban forms and to prepare urban areas for high-capacity transit service in the future.

To access Mr. Hartleben's presentation and seminar video, please follow the link below!

<http://www.utrc2.org/events/events.php?viewid=321>



Oliver Hartleben, Architect & City Planner

**INTELLIGENT TRANSPORT SYSTEMS (ITS)
IN HONG KONG: RECENT DEVELOPMENT
AND FUTURE APPLICATIONS**

*DATE: AUGUST 6TH, 2012
TIME: 1:00 PM- 3:00 PM
LOCATION: NEW YORK UNIVERSITY
NYU WAGNER, PUCK BUILDING
295 LAFAYETTE STREET
NEW YORK, NY 10012-9604*

Dr. William H.K. Lam, a Chair Professor of Civil and Transportation Engineering and Associate Head of the Department of Civil and Structural Engineering at the Hong Kong Polytechnic University will deliver a presentation on “Intelligent Transport Systems in Hong Kong”. Prof. Lam is currently the President of the Hong Kong Society for Transportation Studies (www.hksts.org) and the Past Chairman of the Civil Division, the Hong Kong Institution of Engineers (www.hkie.org.hk). He is the Co-Editors-in-Chief of the Journal of Advanced Transportation and the Editor-in-Chief of the SCI Journal – Transportmetrica. Prof. Lam is also a member of the International Advisory Committee of the International Symposium on Transportation and Traffic Theory (ISTTT). He has over 30-year professional experience in research and practice for planning of transport infrastructures. Prof. Lam has published more than 200 SCI international journal and conference papers together with 50 consultancy reports. His research interests include: transport network modeling and infrastructure planning, travel demand forecasts and risk assessment, ITS technology and planning, public transport and pedestrian studies.

For more details and registration information, please visit the website at: <http://utrc2.org/events/events.php?viewid=326>

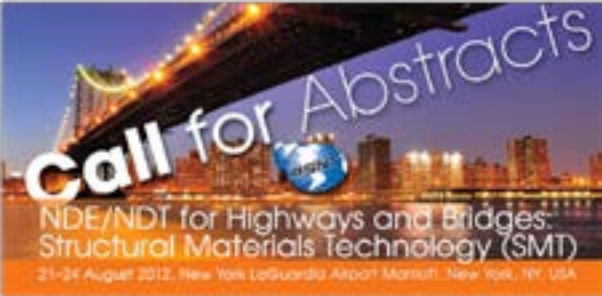


**SMT 2012 CONFERENCE: NDT/NDE FOR
HIGHWAYS AND BRIDGES: STRUCTURAL
MATERIALS TECHNOLOGY (SMT)**

*PROGRAM CHAIR
DR. SREENIVAS ALAMPALLI,
NEW YORK STATE DEPARTMENT
OF TRANSPORTATION
AUGUST 21-24, 2012*

UTRC and NYSDOT, among others, are co-sponsoring “SMT 2012 Conference: NDT/NDE for Highways and Bridges: Structural Materials Technology” and invite abstracts for presentation at the conference. This conference will be held in the New York LaGuardia Airport Marriott near New York City, NY on August 21-24, 2012. The goal of this conference is to promote the exchange of information between national and international researchers, practitioners and infrastructure owners on the application of Nondestructive Evaluation (NDE) and Nondestructive Testing (NDT) technologies for the condition assessment of highway infrastructure. Contributions focused on field applications, case studies, technology implementation, applied research, and practical experience are invited. Through technical presentations and exhibits, infrastructure owners, transportation officials, researchers, consultants, and contractors will be exposed to the state-of-the-practice in nondestructive evaluation (NDE) methods. In addition, participants will have the opportunities to discuss urgent problems faced by civil infrastructure owners and the potential solutions utilizing available emerging NDE technologies.

More information on the conference, abstract submission instructions, and exhibitor information, please visit the conference website. If you need further information, please contact Dr. Sreenivas Alampalli @ salampalli@dot.state.ny.us



**UTRC SPONSORED RESEARCH
TWO PROJECTS COMPLETED**

**DEVELOP CONSULTANT MANAGEMENT
ESTIMATING TOOLS**

**DR. TREFOR P.WILLIAMS
RUTGERS UNIVERSITY**

**DR. NEVILLE A. PARKER
THE CITY COLLEGE OF NEW YORK/CUNY**

The New York State Department of Transportation (NYSDOT) Consultant Management Bureau’s primary responsibilities are to negotiate staffing hours/resources with engineering design consultants, and to monitor the consultant’s costs. Currently the Consultant Management Bureau uses knowledge of past and current projects as well as engineering judgment to estimate consultant costs. The proposed research will focus on several major issues:

- The establishment of a central database that contains historic total project cost and staffing level data.
- The development of a computer based estimating tool that employs the data from the historical database to provide more accurate and efficient estimates of consultant resources.
- We will identify the major variables that affect the consultant’s hours and develop predictive models. We will study multiple regression analysis as a method for developing the models. We will only consider techniques that can easily be incorporated in an Excel spreadsheet.
- The NYSDOT already employs an excel spreadsheet based estimating tool. We will determine how to best integrate the new computer tool with the existing spreadsheet. We will also explore how the developed estimating tool can exchange data with Primavera software. One meeting will be held with other interested parties in the NYSDOT to discuss the possibilities for integration
- Training will be provided including at least three PowerPoint presentations to NYSDOT engineers. The meeting will occur in the main office, downstate, and in the Buffalo area. The PowerPoint presentations produced for the meetings will be provided to NYSDOT as a deliverable. A users manual will be developed to assist Consultant Managers using the system.

The final report can be accessed at: <http://utrc2.org/research/projects.php?viewid=172>

**VALUE PRICING AND TRAFFIC
REDUCTION INCENTIVES**

**DR. HAROLD DEUTSCHMAN
NEW JERSEY INSTITUTE OF TECHNOLOGY**

As traffic congestion grows in cities and suburban areas throughout the United States, the cost of traveling is directly affected and increased. A new concept for combating congestion is the idea of Value Pricing, also known as congestion pricing. The Value Pricing theory involves altering the pricing of transportation facilities, so that it can lead to improved service for transportation users, leading to a more productive use of existing transportation capacities. The Value Pricing program has gained governmental support and a pilot program was created under Section 1216(a) of the Transportation Equity Act for the 21st Century, otherwise referred to as TEA-21. This pilot program was introduced to support efforts being made by State and local governments, as well as other public authorities, to establish, monitor, and evaluate the Value Pricing method. With the evolving state of the TEA-21 pilot program, the Federal Highway Administration (FHWA) has authorized cooperative agreements with up to 15 states to allow for the testing of Value Pricing. The FHWA has allowed the TEA-21 pilot program to set up partnerships with local governments and private parties, inducing an agreement to install a multitude of Value Pricing concepts.

The final report can be accessed at: <http://utrc2.org/research/projects.php?viewid=228>

**NEW YORK STATE DEPARTMENT OF
TRANSPORTATION’S RESEARCH REPORTS
SPR_C-06-02 FIELD EVALUATIONS OF
SHAPEACCELARRAY IN-PLACE MEMS
INCLINOMETER STRINGS FOR SUBSURFACE
DEFORMATION MONITORING**

Continuous monitoring of subsurface ground movements is accomplished with in-place instruments utilizing automated data acquisition methods. The New York State Department of Transportation has participated in prototype installations to evaluate long MEMS (Micro-Electro-Mechanical Systems) - inclinometer strings. The “ShapeAccelArray” (SAA) is a device capable of measuring ground deformation with high accuracy every 0.305 meters and soil acceleration at 2.4 m intervals. The new, guideless device and installation method is being used to achieve detailed deformation profiling to detect multiple

zones of ground deformation. This approach can survive very large ground deformations and continue to collect measurements, and is able to be retrieved from severely distorted casing and redeployed. March 2012. Klik [here](#) for the Full Report.

SPR_C-07-66 NEW YORK CITY PARK & RIDE STUDY FINAL REPORT

This study performed by Rensselaer Polytechnic Institute reviewed existing practices in park and ride planning, developed a methodology for evaluating site candidates, and applied the methodology to the commuter market in New York City. The team identified a set of candidates based on availability for Park and Ride use and transit connectivity. The candidates were evaluated using potential demand, savings, market share, and present value of benefits as performance measurements. January 2012. Klik [here](#) for the Full Report.

SPR_C-08-09 MAINSTREAMING CLIMATE CHANGE ADAPTATION STRATEGIES INTO NYS DEPARTMENT OF TRANSPORTATION OPERATIONS: FINAL REPORT

This study, developed by Columbia University Earth Institute Center for Climate Systems Research, identifies climate change adaptation strategies and recommends ways of mainstreaming them into planned actions, including legislation, policies, programs and projects in all areas and at all levels within the New York State Department of Transportation (NYSDOT). October 31, 2011. Klik [here](#) for the Full Report.

DR. ADEL SADEK’ RECENTLY COMPLETED A POJECT TITLED “AN EVALUATION OF LIKELY ENVIRONMENTAL BENEFITS OF LOWEST FUEL CONSUMPTION ROUTE GUIDANCE IN THE BUFFALO-NIAGARA METROPOLITAN AREA – SUNY-UNIVERSITY AT BUFFALO”

This study will conduct an assessment of the likely environmental benefits of a new application for an environmentally-optimized route guidance system for a medium sized metropolitan area. Activities include: developing an integrated simulation modeling framework capable of calculating time-dependent fuel consumption factors; using TRANSIMS-MOVES2010 modeling to estimate environmental benefits

to be expected from implementing low fuel consumption routing; assessing the impact of market penetration on the likely benefits of the strategy; assessing additional benefits to be expected from taking into account real-time information about traffic disturbances; and assessing modal benefits. For more details on this project, please click [here](#)!



NEW FUNDING/ PROGRAMS

UTRC AWARDS NEW RESEARCH PROJECTS!

FREIGHT TRICYCLE OPERATIONS IN NYC: EVALUATING EFFICIENCY AND EMISSIONS BENEFITS FOR LAST-MILE DELIVERY

Principal Investigator: Alison Conway, Assistant Professor, Department of Civil Engineering, City College of New York (CCNY)
CoPI: Camille Kamga, Director, University Transportation Research Center (UTRC), and Assistant Professor, CCNY
Project Manager: Penny Eickemeyer, Associate Director for Research, UTRC
Sponsors: New York State Energy Research Development Authority (NYSERDA), and New York State Department of Transportation (NYSDOT)

The goal of this project is to evaluate and quantify the benefits of using freighttricycles compared to motorized vehicles for urban delivery in Manhattan, and to examine the feasibility of using freighttricycles as part of a HAACP certified supplychain. It is envisioned that the results of this work will allow freight stakeholders in the New York City region, including shippers, carriers, and public agencies to understand the speed, traveltime reliability, and parking performance of freighttricycles operating in the city's unique conditions, to understand the feasibility for using freighttricycles for HAACP certified food delivery, and to identify the emissions benefits of a modal shift. To read more, please visit our website at: <http://utrc2.org/research/projects.php?viewid=277>

SUPPORT FOR NYMTC FOR CMAQ APPLICATION AND DOCUMENTATION

Principal Investigators: Dr. Camille Kamga, UTRC/CCNY
Institutions: City University of New York

Sponsors: New York Metropolitan Transportation Council
The purpose of the Congestion Mitigation and Air Quality Improvement (CMAQ) Program is to provide federal funding for projects and programs designed to assist nonattainment and maintenance areas in complying with the National Ambient Air Quality Standards. To read more, please visit our website at: <http://utrc2.org/research/projects.php?viewid=270>

ASSISTANCE WITH FINANCIAL PLANNING IN THE CURRENT 2010-2035 REGIONAL TRANSPORTATION PLAN

Principal Investigators: Dr. Camille Kamga, Penny Eickemeyer, Dr. Robert E. Paaswell, UTRC/CCNY
Institutions: City University of New York

Sponsors: New York Metropolitan Transportation Council
The project team's objective is to review all relevant background data, most of which is available at NYMTC, to address the FTA/FHWA concerns. The team will produce a report that both qualitatively and in the form of a technical report clearly presents the RTP projects, costs, and revenues. In addition, the report will provide recommendations for future RTP planning and development in the NYMTC region. To read more, please visit our website at: <http://utrc2.org/research/projects.php?viewid=269>

RTP PUBLIC OUTREACH CONFERENCE AND WORKSHOPS

Principal Investigators: Dr. Camille Kamga, UTRC/CCNY
Institutions: City University of New York
Sponsors: New York Metropolitan Transportation Council

NYMTC's 2015-2040 Regional Transportation Plan (RTP) is currently under development. The purpose of the task assignment Regional Transportation Plan Public Outreach Conference and Workshops is to assist NYMTC staff with reaching out to stakeholders and the general public for input into the development of this long range transportation blueprint for the NYMTC region. This outreach will be done in 2 phases: (1) one large conference in the New York City area and (2) individual work shops in each of NYMTC's 10 counties and boroughs.

ASSISTANCE FOR NYMTC WITH TASKS FOR NEW MAJOR PROJECTS

Principal Investigators: Dr. Charles Brecher, New York University

Co-PI: Dr. Allen Zerk, New York University

Institutions: New York University

Sponsors: New York Metropolitan Transportation Council

The objective of this project is to; provide NYMTC with recommendations as to whether the two sets of procedures should remain and, if so, how they should be improved, whether there should be a single procedure integrating the MIS and Major Projects procedures, or whether there should only be a procedure for Major Projects per current federal regulations and guidance.

To read more, please visit our website at:

<http://utrc2.org/research/projects.php?viewid=276>

OFFSHORE WIND DEVELOPMENT RESEARCH

Principal Investigators: Dr. Shmuel Yahalom, Maritime SUNY, Dr. Kaan Ozbay, Rutgers University

Institutions: SUNY Maritime & Rutgers University

Sponsors: New Jersey Department of Transportation

The objective of the research (from RFP) “is to provide information and recommendations that ensure that the maritime aspects, both vessel and port interface, of OSW development do not impede the state’s desire to make a significant contribution to the achievement of the green electricity production objectives set by the federal government and New Jersey’s 2011 Energy Master Plan. Research should be specific to vessel requirements, characteristics needs and costs, and, the land-use/wharf-side aspects of maritime port facilities as they relate to OSW industry development. Research should not include OSW siting, a discussion of overall costs/benefits and/or environmental considerations.”

To read more, please visit our website at:

<http://utrc2.org/research/projects.php?viewid=272>

LANDFILL CLOSURE WITH DREDGED MATERIALS DESKTOP ANALYSIS MULTIPLE SOURCES DEVELOPMENTS

Principal Investigators: Dr. Robert Miskewitz, Rutgers University, Dr. Christopher G. Uch, Rutgers University

Institutions: Rutgers University

Sponsors: New Jersey Department of Transportation and RITA/USDOT

The objective of this research is to conduct an initial feasibility analysis study which will include the following:

- The NJDEP has a landfill database that identifies existing landfills that require closure. The current list is incomplete. The research group is to identify the landfills located in Cape May, Atlantic, Burlington, Ocean, and Monmouth Counties that require closure.
- Each landfill site parcel will be mapped. A shapefile of the landfill parcels will be created in ArcGIS.
- With the assistance and guidance of the NJDOT and the NJDEP, a rating system will with dredged material and each site will be ranked. Priority landfill sites that have a high feasibility for closure with dredged material will be identified.
- A Phase 1 Environmental Site Investigation will be conducted of the priority sites to identify unknown potential issues or concerns. To read more, please visit our website at: <http://utrc2.org/research/projects.php?viewid=275>

NEW RESEARCH FUNDING AT THE VOORHEES TRANSPORTATION CENTER

DR. ERIC GONZALES OF RUTGERS CENTER FOR ADVANCED INFRASTRUCTURE AND TRANSPORTATION AND DR. DEVA DEKA OF THE VOORHEES TRANSPORTATION CENTER HAVE BEEN AWARDED A NJ DOT RESEARCH GRANT ON ADA PARATRANSIT SERVICE AREA GEOGRAPHIC REALIGNMENT.

NJ TRANSIT currently operates its ADA-complementary Access Link service by dividing the service area into five regions. Service is provided to customers within ½ miles of fixed route local bus routes and light rail stations. The research will analyze possible realignment of Access Link regions and provide cost and benefit estimates for alternative scenarios. In addition to analyzing the possibilities for realigning the Access Link regions, the research will examine the consequences of expanding the Access Link service area beyond ½ mile of fixed-route local bus service and the possibility of breaking down one of the largest regions to smaller components. The research will include analysis of historical trip patterns, estimation of location-specific travel demand, and cost/benefit analysis for alternative scenarios.

DR. ROBERT NOLAND, IN COLLABORATION WITH THE PEDESTRIAN BICYCLE RESOURCE CENTER AT VTC WAS THE RECIPIENT OF A \$20,000 GRANT FOR NEW BRUNSWICK

This grant will provide funding for the City of New Brunswick Sustainable Safe Streets Initiative. Following the adoption of the city’s Master Plan in 2004, New Brunswick officials analyzed the Livingston Avenue corridor in 2007 to develop potential improvements in order to help maintain adequate traffic flow, improve bike safety, and to make crossings safer. The New Brunswick Sustainable Safe Streets Initiative seeks to further improve safety and reduce injuries and fatalities on Livingston Avenue, which provides a gateway into downtown New Brunswick and the Rutgers community. The VTC team will be working with Glenn Patterson, Director of Planning, Community and Economic Development for the City of New Brunswick. Researchers will ultimately provide a report to the City of New Brunswick that contains a blueprint for the redesign of Livingston Avenue to become more pedestrian-, bicycle-, and transit-friendly. These grants are aimed at building new collaborations for research focused on the areas of nutrition and food security; youth development and education; community planning; and public health and safety.

Andrea Lubin and Stephanie DiPetrillo of the Alan M. Voorhees Transportation Center are recipients of funding from a federal Medicaid Infrastructure Grant. This work is to develop and implement a pilot travel information and training program targeted to New Jersey Division of Vocational Rehabilitation Services counselors who work with people with disabilities seeking employment. The overarching goal is to provide public transit information and to familiarize the employment/social service provider community with the concept and value of offering travel training as a means of imparting travel independence and options to their consumers seeking employment. The pilot effort has been successfully received and the program will be expanded this summer/fall to employment counselors working in the nonprofit sector.

ALAN M. VOORHEES TRANSPORTATION CENTER IN COLLABORATION WITH RUTGERS LIBRARY

The Alan M. Voorhees Transportation Center is coordinating an effort to establish the Alan M. Voorhees Archives in collaboration with the Rutgers University library. Our effort is aimed at collecting reports, technical notes, and any other documentation from those associates and colleagues of Alan M. Voorhees. We are especially interested in work that will document the planning and construction of major infrastructure projects in the 1950’s up until the completion of the interstate highway system. We have received seed funding for this effort from members of the VTC Advisory Board. Anyone wishing to make contributions to the library, please contact Dr. Robert Noland, rnoland@rutgers.edu.

RESEARCH NEWS FROM THE LIGHTING RESEARCH CENTER AT RPI

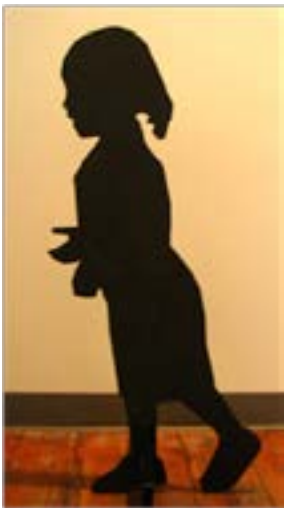
LIGHTING RESEARCH CENTER, NYSDOT AND NYSERDA PUBLISH INFORMATIONAL BROCHURE ON ROADWAY LIGHTING

Through a cooperative research solicitation from the New York State Energy Research and Development Authority (NYSERDA) and the New York State Department of Transportation (NYSDOT), the Lighting Research Center (LRC) at Rensselaer Polytechnic Institute has developed a short informational brochure on roadway lighting and new lighting technologies. The brochure assists New York State roadway lighting decision-makers in understanding the possible benefits of light sources such as light emitting diodes (LEDs), fluorescent induction, and metal halide lamps for several roadway types, including parkways, rural roadway intersections and residential streets. Pointers to additional guidance and policies on roadway lighting from NYSDOT, NYSERDA, the Illuminating Engineering Society, the American Association of State Highway and Transportation Officials (AASHTO), and from the LRC are also included. The informational brochure can be downloaded from the NYSDOT website at:

http://www.dot.ny.gov/divisions/engineering/technical-services/trans-r-and-d-repository/C-10-14_RoadwayLighting-InformationalBrochure.pdf

The technical report containing background information for the project can also be downloaded at:

http://www.dot.ny.gov/divisions/engineering/technical-services/trans-r-and-d-repository/C10-14_Final



TRANSPORTATION LIGHTING ALLIANCE STUDY FROM LRC EXPLORES PEDESTRIAN SAFETY AT ROUNDABOUTS

John Bullough, Senior Research Scientist at the Lighting Research Center (LRC), and Senior Research Specialist Nicholas Skinner compared pedestrian visibility in roundabouts under different lighting conditions in a two part study in a Transportation Lighting Alliance (TLA) report. They first used photometric lighting simulations to estimate the visibility of pedestrians by drivers in lighted and unlighted areas. Their analyses included conventional static headlamp systems found on most cars today, as well as advanced headlamp technologies that might be more common on cars of tomorrow. These included high-intensity discharge (HID) headlamps with wider patterns, and intelligent headlamps that could swivel toward pedestrians or other hazards to make them more visible.

Bullough and Skinner estimated visibility using the relative visual performance (RVP) model. RVP predicts the speed and accuracy of seeing as a function of light level, target contrast, size and driver age. Although they found that some combinations of headlamps and roadway lighting reduced the contrast between pedestrians and their backgrounds, making them harder to see, they also found that HID and intelligent headlamps helped maintain high contrast and high visibility whether roadway lighting was present or not.

The TLA report, “Benefits of Intelligent Headlamp Technologies to Pedestrian Safety at Roundabouts,” is available at <http://www.lrc.rpi.edu/programs/transportation/TLA/pdf/TLA-2012-01.pdf>.

To learn more about the LRC’s transportation lighting and safety research, visit www.lrc.rpi.edu/programs/transportation/index.asp.

RESEARCH NEWS FROM UNIVERSITY AT ALBANY/ SUNY

Dr. Catherine Lawson Joined the RAND Corp with Her Team-mates to Conduct a Research on “Innovative Truck Activity Data”

Dr. Catherine T. Lawson, and her research team members, Alex Muro, and Matt Wolkoff, are joining the RAND Corp, to conduct research on Innovative Truck Activity Data, being funded by USDOT through the National Cooperative Freight Research Program (NCFRP 39). For more details, see <http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=3125>.

The primary objective of the research is to develop and assess strategies for obtaining comprehensive trucking activity data for making more informed public policy decisions at the national and regional levels.

NEW PUBLICATIONS & PRESENTATIONS

Published Papers

Dr. Rachel Weinberger Authored a Paper in the journal of Environment and Planning titled: “Separating Contextual from Endogenous Effects in Automobile Ownership Models”.

Paper Citation: Goetzke F, Weinberger R, 2012, “Separating contextual from endogenous effects in automobile ownership models” Environment and Planning A 44(5) 1032 – 1046

Abstract:

Using the 1997/98 New York Metropolitan Transportation Council household survey and United States Census, we estimate an instrumental variable probit model to test the impact of contextual and endogenous social interaction effects on auto ownership and determine that the probability of car ownership is affected by both types of social interaction effects. Previous research focused only on either contextual effects, or, increasingly, on endogenous effects using contextual effects variables as instruments. Therefore we were unable to find studies looking at both social interaction effects simultaneously. Consistent with earlier results, we find that households have a higher probability to possess a vehicle if they are surrounded by other automobile-owning households (endogenous effect). However, we find that contextual effects are only be correctly measured when the endogenous effect is included. In our case, everything else being equal, that households in poorer neighborhoods are more likely to own vehicles and households in neighborhoods with higher proportions of people with graduate degrees are less likely to own vehicles. This suggests that car ownership in New York City is a status symbol for poorer households and that non-car ownership is a status symbol for people with post baccalaureate education. The results are important in two policy contexts: as auto ownership is a precursor to trip generation and mode choice, auto ownership estimation is important to effective travel forecasting; as vehicle miles traveled (VMT) is tied to auto ownership, VMT reduction strategies, as a way to improve air quality, reduce congestion and reduce greenhouse gas emissions may depend on auto ownership reduction strategies. In either case, correct modeling of auto ownership will lead to more effective policy outcomes.

DR. DILRUBA OZMEN-ERTEKIN CO-AUTHORED A PAPER ON “DYNAMIC DATA MAINTENANCE FOR QUALITY DATA AND QUALITY RESEARCH”

Dr. Ozmen (co-authored with Kaan Ozbay) titled “Dynamic data maintenance for quality data, quality research” was published in International Journal of Information Management, Vol.32, pp.282– 293. The paper was based on the work done in “Improvements on NYMTC Data Products” project completed in November 2009.

Presentations

RPI LIGHTING RESEARCH CENTER AT THE SOCIETY OF AUTOMOTIVE ENGINEERS 2012 WORLD CONGRESS

Nicholas Skinner, Senior Research Specialist, and John Bullough from the Lighting Research Center at Rensselaer Polytechnic Institute attended the Society of Automotive Engineers (SAE) World Congress, held in Detroit, MI from April 24-26. They presented two papers: “Interactions Among Light Source Luminance, Illuminance and Size on Discomfort Glare” and “Vehicle Lighting and Modern Roundabouts: Implications for Pedestrian Safety.” The paper on glare was co-authored by Kathryn Sweater Hickcox, Senior Research Specialist at the LRC. Both papers were selected for publication in the peer-reviewed Society of Automotive Engineers International Journal of Passenger Cars - Mechanical Systems, Volume 5, Issue 1. Website: <http://saepcmec.saejournals.org/content/5/1>

THE ALAN M. VOORHEES CENTER AT THE 2012 NEW JERSEY BIKE AND WALK COALITION SUMMIT

Charles Brown, Senior Research Specialist, at the Alan M. Voorhees Transportation Center presented on the “New Jersey Ambassadors in Motion Program” and the “Three-Foot Safe Passing Law” at the 2012 New Jersey Bike and Walk Coalition Summit in New Brunswick, NJ; presented on “New Jersey Complete Streets” at the 2012 National APA Conference in Los Angeles, CA; presented on “What Do People in New Jersey Want: A Review of Key Surveys” and “Pedestrian Safety at Bus Stops” at TransAction 2012 in Atlantic City, NJ; and will be presenting on “Pedestrian Safety at Bus Stops” at the 2012 ITE Midwestern District and TRB 4th Urban Street Symposium in Chicago, Illinois on June 24 - 27, 2012.

PRESENTATIONS BY DAVID KING, AN ASSOCIATE PROFESSOR AT COLUMBIA UNIVERSITY AT NYU’S SYMPOSIUM

David King presented new research at NYU's Rudin Center's “Walking and the Life of the City” Symposium on June 7, 2012. This was a UTRC

sponsored event. The talk was titled “Planning for Pedestrians within Multi-modalism: A Normative Framework.”

http://wagner.nyu.edu/blog/rudincenter/walking_symposium_recap/

DR. KING AT NJ TRANSACTION 2012 CONFERENCE

David King, a professor at Columbia University, presented his research on parking at the New Jersey TransAction 2012 conference in Atlantic City, NJ on April 12, 2012.

RECENT PUBLICATIONS

Melo, Patricia C., Daniel J. Graham, and Robert B. Noland, “The Effect of Labour Market Spatial Structure on Commuting in England and Wales”, Journal of Economic Geography, 12, (2012), 717-737.

S. Huang, A.W. Sadek and Y. Zhao. (2012). Assessing the mobility and environmental benefits of reservation-based intelligent intersections using an integrated simulator. Accepted for publication in IEEE Transaction on Intelligent Transportation Systems (DOI: 10.1109/TITS.2012.2186442).

S. Huang, A.W. Sadek and L. Guo. (2012). A Computational-based Approach to Estimating Travel Demand in Large-scale Microscopic Traffic simulation Models. Accepted for publication in ASCE Journal of Computing. (DOI: [http://dx.doi.org/10.1061/\(ASCE\)CP.1943-5487.0000202](http://dx.doi.org/10.1061/(ASCE)CP.1943-5487.0000202)).

S. Huang, L. Guo, Y. Yang, I. Casas, and A.W. Sadek. (2012). Dynamic Demand Estimation and Microscopic Traffic Simulation of a University Campus Transportation Network. Accepted for publication in Transportation Planning and Technology (DOI: 10.1080/03081060.2012.680818).

Y. Zhao, A.W. Sadek, and D.P. Fuglewicz. (2012). Modeling Inclement Weather Impact on Freeway Traffic Speed at the Macroscopic and Microscopic Levels. Accepted for publication in the Journal of the Transportation Research Board.

J. Ring and A.W. Sadek. (2012). Predicting Lane Utilization and Merge Behavior at Signalized Intersections with Auxiliary Lanes: A Buffalo, New York, Study. Accepted for publication in ASCE Journal of Transportation Engineering (DOI: [http://dx.doi.org/10.1061/\(ASCE\)TE.1943-5436.0000426](http://dx.doi.org/10.1061/(ASCE)TE.1943-5436.0000426)).

L. Guo, S. Huang, and A.W. Sadek. (2012). An Evaluation of Likely Environmental Benefits of a Time-dependent Green Routing System in the Greater Buffalo-Niagara Region. Accepted for publication in the Journal of Intelligent Transportation Systems: Technology, Planning and Operations.

Y. Ma, M. Chowdhury, A.W. Sadek, and M. Jaihani. (2012). Integrated Traffic and Communication Performance Evaluation of an Intelligent Vehicle Infrastructure Integration (VII) System for Online Travel Time Prediction. Accepted for publication in IEEE Transaction on Intelligent Transportation Systems.

ARTICLES

NEW YORK CITY DOLLAR VAN

David King's recent work on New York City's Dollar Vans was cited in Will Doig's article in Salon.com on deregulated transit.

http://www.salon.com/2012/06/09/when_libertarianism_fails/

TRAFFIC JAMS, DELAYS AND MITIGATION

Dr. Ozmen wrote an article for Fall 2011 issue of the Hofstra Horizons titled "Traffic Jams, Delays, and Mitigation Strategies" (http://www.hofstra.edu/about/administration/provost/hofhrz/hofhrz_f11_toc.html).

UTRC STAFF

Camille Kamga

Director

Robert E. Paaswell

Director Emeritus, UTRC

Oti Boateng Agyenim

Research Assistant

Nadia Aslam

Assistant Director for Technology Transfer

Alison Conway

Associate Director for New Programs Initiatives

Matthew Daus

Distinguished Lecturer, CCNY

Lindsay Donnelly

Research Assistant

Penny Eickemeyer

Associate Director for Program Management

Herb Levinson

UTRC Icon Mentor

Nathalie Martinez

Research Associate

Claire McKnight

Associate Director for Education & Training,
Associate Professor of Civil Engineering

Benjamin Miller

Senior Research Associate, Freight Programs

Sundari Prasad

Graphic Intern

Abhishek Singhal

Research Assistant

Nathan Stodola

Research Associate

Ellen Thorson, Ph.D.

Senior Research Fellow

Anil Yazıcı, Ph.D.

Research Associate

The article was based on the work done in my previous paper "A Simple Approach to Estimating Changes in Toll Plaza Delays," Transportation Research Record: Journal of the Transportation Research Board, No. 2047, pp. 66-74 (co-authored with Kaan Ozbay, Sandeep Mudigonda, and Anne M. Cochran.)

INCENTIVES TO CHANGE TRAVEL BEHAVIOR

Dr. Rachel Weinberge was featured on NPR's "The Takeaway" today talking about incentives to change travel behavior.

<http://www.thetakeaway.org/2012/jun/13/incentive-end-traffic/>

CONSORTIUM MEMBERS include

City University of New York

Clarkson University

Columbia University

Cornell University

Hofstra University

New Jersey Institute of Technology New York

University Polytechnic Institute of NYU

Rensselaer Polytechnic Institute

Rochester Institute of Technology

Rowan University

Rutgers University

State University of New York

Stevens Institute of Technology

Syracuse University

The College of New Jersey University of

Puerto Rico Mayagüez

UTRC Research News is Published Quarterly by the University Transportation Research Center, which is based at The City College of New York, Marshak Hall, Suite 910 New York, NY 10031.

Editorial inquiries and submissions can be made by contacting Nadia Aslam at 212-650-8051 or email at nadia@utrc2.org. For more information on our programs or to notify us of an address correction, please email martinez@utrc2.org.

