



**ANNUAL REPORT 2012**

**UNIVERSITY TRANSPORTATION  
RESEARCH CENTER • REGION 2**

**UNIVERSITY TRANSPORTATION RESEARCH CENTER . REGION 2 | THE CITY COLLEGE OF NEW YORK**

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Annual Report – 2012

This report represents the activities of the UTRC from October 1, 2011 - December 31, 2012

The preparation for this report was funded by a grant from the Research and Innovative Technology Administration of the U.S. Department of Transportation.

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**DESIGN CREDITS:**

**CAMILLE KAMGA, NADIA ASLAM, EDITORS**

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# DIRECTOR'S MESSAGE



Once again it is this time of the year when we present our Annual Report to highlight the center activities conducted during the year while reflecting on what the future holds for our organization.

We began the year 2012 with the good news about our successful application to continue receiving federal funding in the competition held by the Research and Innovative Technology Administration (RITA) of the U.S. Department of Transportation to select 22 University Transportation Centers (UTCs). It is of no doubt that working together as a team; we surmounted the challenges and positioned ourselves in a better position to achieve this success. We want to thank each and everyone of you for your support of our consortium.

We faced few challenges in implementing some of our programs due to delays in acquiring the requisite funding to start activities and some lengthy procedures in getting some of the implementing partners on board just to mention a few. Nonetheless, we all pooled our efforts together to ensure that these challenges were overcome as demonstrated by our accomplishments.

Looking through the pages of this report, you will agree with me that 2012 has been a very productive year for us, owing to a number of significant events that took place. In 2012, we hosted and co-hosted more than 20 events including seminars, workshops, symposiums, summits, and conferences. We organized and hosted the first of its kind Legislative Forum - Taxi & Livery Issues of Today & Tomorrow. This event brought together, a state senator (Hon. Golden), an Assemblyman (Hon. Kellner), and a Councilman (Hon. Vacca) to discuss specific legislation that they have authored and passed, the legislative policy making process, and what is in store for the future on these and other issues that may profoundly impact the taxi, livery and for-hire ground transportation industry in New York

City. 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 leading research and researchers in the field of connected vehicles and develop a series of next-step scenarios.

With funding from our local transportation agency-partners, we initiated more than 50 new research projects, continued investigation on more than 30 research projects, and successfully completed and disseminated final reports of completed research projects. We proudly awarded scholarships to 16 students by providing financial support towards their education and professional development. These are only some of the achievements we attained during the year 2012 and there are many others, too numerous to mention in these few words.

In light of the passage of the Moving Ahead for Progress in the 21st Century Act which authorizes funding for each of the fiscal years 2013 and 2014 for up to 35 competitive grants for UTCs, RITA released a 2013 Grant Solicitation for competitively select five national UTCs, ten regional UTCs, and up to 20 Tier I UTCs. We are looking forward again with a lot of optimism to compete for federal funding under this grant solicitation.

**CAMILLE KAMGA**

**Director**

*Assistant Professor, Civil Engineering  
The City College of New York, CUNY*

## CHAIRMAN'S MESSAGE



**W**e were successful (but not surprised) to be re-designated by RITA as a Regional Center. This achievement was largely due to the efforts and dedication of our Center's staff and its leadership team who are totally committed to ensure that the Center's theme "Planning and Managing Regional Transportation Systems in a Changing World" is articulated through research projects that transportation agencies can use; education programs that add value to the technical and managerial skills of the transportation agency; and in promulgating technical knowledge to the benefit of all stakeholders in the Region.

Consistent with the Center's theme, this coming year's projects have been initiated by the Center's institutions through a competitive RFP process. Out of 62 proposals received, 35 were funded - all involving the collaboration with at least one local agency.

I continue to be very proud of our Center's accomplishments in our Region - not the grant renewal for this year, but many other accomplishments achieved over the many years of the Center's life.

We should all feel good with our individual and collective success and I congratulate those who made it possible - students, faculty, colleagues and supporters at collaborating agencies - and look forward to another productive and rewarding year.

**JOHN C. FALCOCCHIO**

**Chairman**

*Professor, Transportation Planning and Engineering  
Polytechnic Institute of NYU*

## A NOTE FROM DIRECTOR EMERITUS



I recently attended a meeting of public agencies and transportation providers where they recapped their response to Hurricane Sandy. While professionally classified as an “Extreme Event”, Sandy was truly a personal event to all in our mega region – whether you lived in the surge region, the blackout region or in a more secure place. But we were all overwhelmed by the counts – houses lost, infrastructure destroyed, natural environment upset and the costs in dollars to the region. As has been well documented the region had been warned often that such an event – a storm surge, high winds and significant rain, from a hurricane was “due” to hit the region, but planning for the actual event had been less than adequate. But, a week before landfall, serious planning, evacuations and hardening (as much as possible) of infrastructure began taking place. The MTA moved trains to dry ground; NJT was less successful – although they moved their trains to a location believed to be out of harm’s way; so much for the unpredictability of storms. The true engineering work has begun to mitigate the storm impacts. These include excellent coordination among the various local transportation agencies and between them and federal agencies. Putting infrastructure – such as rail float barges, or rail lines – or tunnels into revenue service quickly has been a high priority and incredible progress has been made.

The questions we must now ask as engineers, planners and policy makers concern the next event. With polar caps melting a rapid rates, monthly global average temperatures sustaining a continuing pattern of record highs and recent patterns of heavy summer rains and floods, an extreme event is likely to occur again soon. Our planners and policy makers must ask – what lessons have we learned from Sandy? These are lessons in vulnerability of our built environment and our natural environment, how do

we address those vulnerabilities and what should be the priorities of investments to minimize disruptions from the next extreme events. What are potential scenarios for the next extreme event – we can’t assume the next storm will be just like the last. That is, we can’t base planning on yesterday’s events. The word resilience has reemerged in the engineering classroom. As we design our built environment, what new thinking must we bring to our structures and infrastructure to be able to make them better resistant to the forces of these events – and within reasonable cost. And engineers, used to Benefit Cost Analysis, must ask are there locations where the costs of rebuilding just make no sense.

We will have reminders of Sandy before us for some time to come; just relocating and rebuilding for tens of thousands of families is a daunting task. But we are also reminded that the region is home to some of the best engineering talent in the world – and daunting tasks are what they have been trained to address.

**ROBERT E. PAASWELL**

**Director Emeritus**

*Distinguished Professor, Civil Engineering*

The City College of New York, CUNY

## 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. 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 modern, 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](http://www.ITS-NY.org) for more information.

## 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



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

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.



# HIGHLIGHTS

## LUNCH WITH CONGRESSMAN SHUSTER

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: <http://transportationnation.org/2012/05/14/shusterpresident-will-sign-transpo-bill-in-the-fall/>



Left to Right: Dr. Camille Kamba, UTRC Director; Bill Shuster, Pennsylvania Congressman; and Dr. Mitchell Moss, NYU Rudin Center Director



Dr. Camille Kamba, in conversation with Congressman Bill Shuster at the Rudin Center Luncheon



# HIGHLIGHTS



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

## LEGISLATIVE FORUM - TAXI & LIVERY ISSUES OF TODAY & TOMORROW

The University Transportation Research Center (Region 2, NY & NJ) and the International Association of Transportation Regulators (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.

More information and videos of the event is available at [www.utrc2.org](http://www.utrc2.org)

# HIGHLIGHTS

## MATTHEW W. DAUS, PRESENTED AT THE RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION (RITA)'S TRANSPORTATION INNOVATION SERIES

On November 21st, 2012, Matthew Daus, UTRC Distinguished lecturer, presented at the renowned RITA Speaker's series on the topic; "The Expanding and Accelerating Universe of Ground Transportation Tech Innovation". Mr. Daus's presentation focused on the technological advancements in the ground transportation field. In his presentation, he mentioned that we are now at a technological crossroads in the ground transportation universe, where technology will continue to improve and transform private and quasi-public for hire ground transportation services, as well as redefine its ability to interface with other transportation modes. All of these technological changes are happening quickly and sharing-up the existing paradigm placing traditional industry stakeholders, passengers, government regulators and start-up tech companies on an astronomical collision course



with one another. He addressed the policy issues surrounding new and emerging ground transportation technology, offering inside perspective on its historical evolution, recommended resolutions to problems, and predictions for the future. The webcast of Matt's presentation is available at:

<http://mediasite.yorkcast.com/webcast/Viewer/?peid=67ebde5a04b1425fb367b9926ea1f6bb1d>

## UTRC PROVIDED ASSISTANCE TO NEW YORK METROPOLITAN TRANSPORTATION COUNCIL (NYMTC) FOR THE 2040 REGIONAL TRANSPORTATION PLAN (RTP) THROUGH PUBLIC OUTREACH

In collaboration with NYMTC, UTRC has designed and developed a web-based outreach tool for the NYMTC's 2040 Regional Transportation Plan (RTP) public outreach. This tool aims for an optimal public outreach through the Regional Transportation Planning website and a virtual town hall meeting website "MindMixer" which allows people to share their ideas on the transportation issues within NYMTC region. The user friendly website platform allows people to share an already submitted idea on different social media platforms and bring it to a virtual discussion forum. The tool was available to the public for 5 months. During that time, a handful of public's comments and suggestions of transportation projects within the NYMTC region including NYC boroughs, Hudson Valley and Long Island regions were collected. The comments, ideas, and suggestions submitted through the web platform will be considered while developing the 2040 RTP.

UTRC and the NYC Department of City Planning, in coordination with NYMTC staff, have also organized ten open-houses to continue the public involvement process for the development of the 2040 Regional Transportation Plan (RTP). These open-houses were held in each of the counties and boroughs in the NYMTC region. The information gathered at these open-houses will be combined with those received from other outreach efforts to help develop the 2040 RTP. The public was invited and encouraged to attend and participate in the open-houses.

**publicoutreach** 2040 NYMTC Regional Transportation Plan

The Regional Transportation Plan (the Plan) is an integral part of the transportation planning process in the ten-county New York Metropolitan Transportation Council (NYMTC) region. Help shape the Plan by sharing your transportation ideas today!

**RECENT COMMENTS**

- » In the final analysis we are all walkers, if only to our primary mode, such as subway. I am
- » Appreciate, Happy, Impressed
- » While I usually commute by subway, I am increasingly commuting by bike - used a bike
- » I take the F train from my queens home to Manhattan. I would take

Where are the Ideas happening? See for yourself. **Launch the Idea Map**

**TOPICS** Sort By: **LATEST** POPULAR Status: **CURRENT** ARCHIVED

**Commuting to Work** Take the Poll Expand

6 49 Days Remaining

# “ PLANNING & MANAGING REGIONAL TRANSPORTATION SYSTEMS IN A CHANGING WORLD ”

**R**egion 2's primary focus is the stewardship, management, and future evolution of its already mature transportation systems, in the face of emerging policy challenges. The region's transportation agencies must continually adjust to the nature of the economy and its evolving transportation requirements; their emerging understanding of what is required to protect public safety and security; and new challenges, such as global climate change. As advances in technology continually redraw the boundaries of what is possible, transportation agencies also face the daunting challenge of revisiting how they define their missions, serve the public and conduct their routine business. Because this region has historically faced so many transportation challenges, it has a tradition of innovation in transportation. Yet as the early solutions it adopts become institutionalized, it tends to be slow to absorb and implement lessons from innovators elsewhere in the U.S. and abroad, and thus often falls behind the curve. To become a region that can plan and manage its systems effectively in the face of change, it must become more dynamic in its approaches to the management of information and technology.

UTRC's theme – “Planning and Managing Regional Transportation Systems in a Changing World” encompasses three broad thematic areas:

**PLANNING TODAY:** requires knowledge of multi-modal and intermodal systems serving both freight and passenger movements. Planning in the region involves not only MPOs, but all of the many agencies taxed with the need to move people and goods 24/7. Planning is constrained by institutional mandate and history, the need to catch up with a backlog of capital needs, and a chronic shortage of adequate funds for both maintaining and building the infrastructure. UTRC's role is to provide through academic programs, a solid base on which planning decisions can be made.

**MANAGEMENT TODAY:** demands knowledge of interaction among complex multi modal systems, budgeting, system operations and performance targets, customer needs, the need to address security, and – when fighting fires stops – a sense of vision of system performance and regional change. Management takes place at every level: from

agency board members to line operators. UTRC works to develop education and training programs to improve the state of knowledge and practice at all of these levels.

**RESPONSES TO CHANGE:** As the world changes, the demands on the transportation system change as well. Tomorrow's transportation systems will need to be more secure, more resilient to natural hazards, less damaging to the environment, and better able to use available capacity efficiently. Emerging transportation systems rely on real time technology and rapid transfer of operational information. The institutions that have traditionally operated the regional assets must, themselves, begin to change. They must think multimodally, with integrated operating systems. UTRC strives to assist these agencies to achieve organizational change responsive to new missions.

# MANAGEMENT STRUCTURE

## BOARD OF DIRECTORS

### CITY UNIVERSITY OF NEW YORK (CUNY), NEW YORK

Dr. Hongmian Gong - *Geography*  
Dr. Claire McKnight - *Civil Engineering*  
Dr. Neville A. Parker - *Civil Engineering*

### CLARKSON UNIVERSITY, NEW YORK

Dr. Kerop D. Janoyan - *Civil Engineering*

### COLUMBIA UNIVERSITY, NEW YORK

Dr. Raimondo Betti - *Civil Engineering*  
Dr. Elliott Sclar - *Urban and Regional Planning*

### CORNELL UNIVERSITY, NEW YORK

Dr. Huaizhu (Oliver) Gao - *Civil Engineering*  
Dr. Mark A. Turnquist - *Civil Engineering*

### HOFSTRA UNIVERSITY, NEW YORK

Dr. Jean-Paul Rodrigue - *Global Studies and Geography*

### NEW JERSEY INSTITUTE OF TECHNOLOGY, NEW JERSEY

Dr. Priscilla P. Nelson - *Civil Engineering*  
Dr. Steven Chien - *Civil Engineering*

### NEW YORK UNIVERSITY, NEW YORK

Dr. Mitchell L. Moss - *Urban Policy and Planning*  
Dr. Rae Zimmerman - *Planning and Public Admin.*

### POLYTECHNIC INSTITUTE OF NYU, NEW YORK

Dr. John Falcocchio - *Civil Engineering*  
Dr. Elena Prassas - *Civil Engineering*

### RENSSELAER POLYTECHNIC INSTITUTE, NEW YORK

Dr. José Holguin-Veras - *Civil Engineering*  
Dr. William Wallace - *Systems Engineering*

### ROCHESTER INSTITUTE OF TECHNOLOGY

Dr. James Winebrake - *Science, Technology,  
& Society/Public Policy*

### ROWAN UNIVERSITY, NEW JERSEY

Dr. Beena Sukumaran - *Civil Engineering*  
Dr. Yusuf Mehta - *Civil Engineering*

### RUTGERS UNIVERSITY, NEW JERSEY

Dr. Robert Noland - *Planning and Public Policy*  
Dr. Kaan Ozbay - *Civil Engineering*

### STATE UNIVERSITY OF NEW YORK, NEW YORK

Michael M. Fancher - *Nanoscience*  
Dr. Catherine T. Lawson - *City & Regional Planning*  
Dr. Adel W. Sadek - *Transportation Systems Eng.*  
Dr. Shmuel Yahalom - *Economics & Maritime*

### STEVENS INSTITUTE OF TECHNOLOGY, NEW JERSEY

Dr. Thomas H. Wakeman III - *Civil Engineering*  
Dr. Sophia Hassiotis - *Civil Engineering*

### SYRACUSE UNIVERSITY, NEW YORK

Dr. Riyadh S. Aboutaha - *Civil Engineering*  
Dr. O. Sam Salem - *Construction Engineering and Management*

### THE COLLEGE OF NEW JERSEY, NEW JERSEY

Dr. Michael Schenoda - *Civil Engineering*

### UNIVERSITY OF PUERTO RICO, PUERTO

Dr. Ismael Pagán-Trinidad - *Civil Engineering*  
Dr. Didier M. Valdés-Díaz - *Civil Engineering*

**U**TRC has adopted a corporate style of management. In this style, the UTRC Board provides policy guidelines, and approval of UTRC activities. Dr. Camille Kamga, Assistant Professor of Civil Engineering at The City College of New York, serves as Director, overseeing day-to-day operations and providing a bridge between UTRC policies and the activities and resources used to carry out those policies.

The Board of Directors, with representatives from consortium universities, is chaired by Dr. John Falcocchio of Polytechnic University and conducts its business through a well-organized committee structure. The full Board reviews Center objectives and programs, approves budgets, and reviews and recommends actions forwarded by its two major working committees.

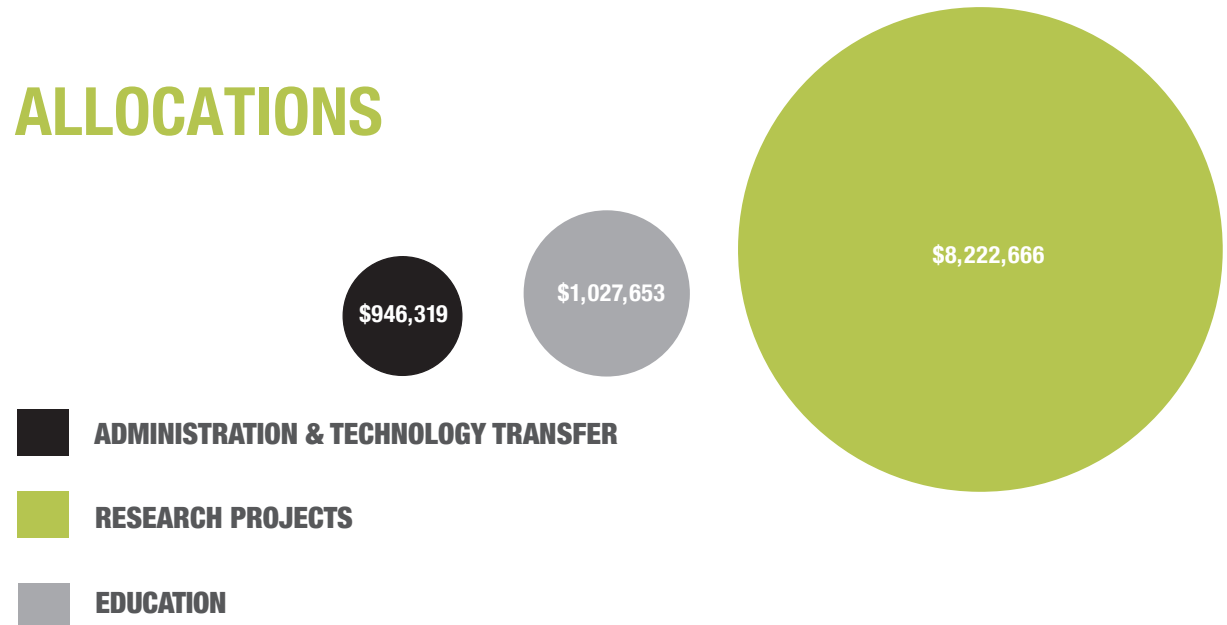
# FINANCIAL REPORT

The following charts summarize the UTRC revenues and expenditures for FY 2011-2012. Under both transportation legislations – SAFETEA-LU and MAP-21, the University Transportation Research Center Region 2 funding allocated to programs totaled approximately \$10.2 Millions in 2011-2012. During this fiscal year, the annual USDOT grant allocated to our programs was \$4.5M. The USDOT funds represent 44 percent of the total allocation.

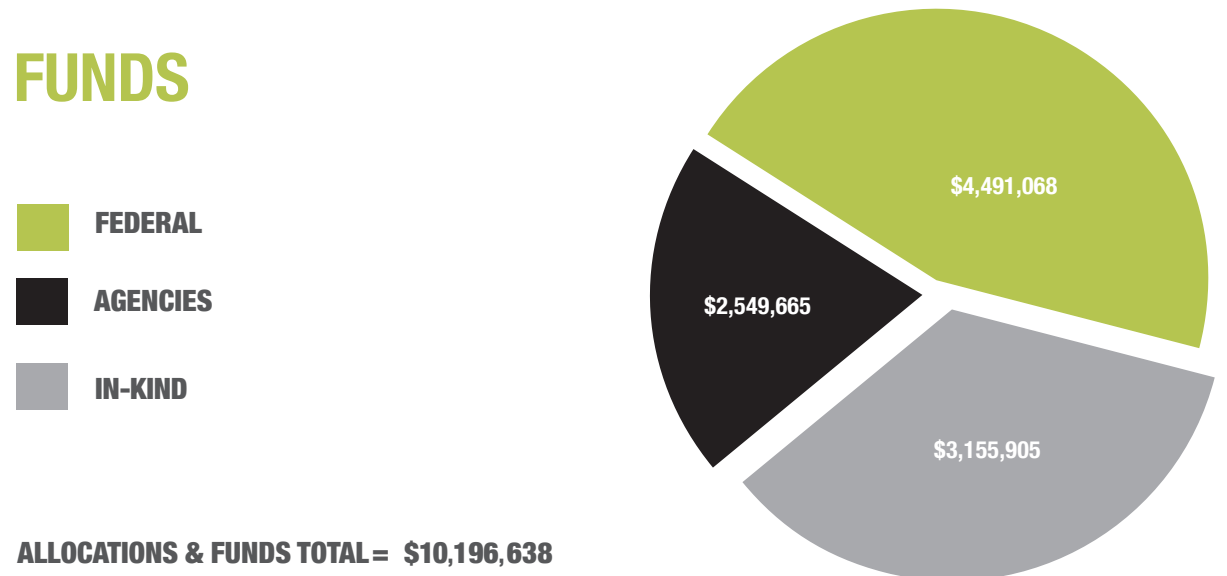
During the FY 2011-2012, UTRC’s longtime partners, the New York State Department of Transportation, the New York Metropolitan Transportation Council, the New Jersey Department of Transportation, and the New York State Energy and Development Authority provided a combined 25 percent of the funding. UTRC’s in-kind support from university members and agencies were 31 percent of the total budget.

Continued with its tradition, and strong partnerships, and solid financial commitment from federal, state, and local transportation agencies, UTRC allocated 81 percent of its total budget to research projects. To carry out administrative and technology transfer programs, 9 percent of these funds were used. The remaining funds (10%) were allocated to the Advanced Institute for Transportation Education program, the September 11th Memorial Program for RTP – Academic Initiative, and other educational initiatives such as our workforce development program.

## ALLOCATIONS



## FUNDS



**ALLOCATIONS & FUNDS TOTAL = \$10,196,638**

# STAFF



**DR. CAMILLE KAMGA**

**Director**  
Assistant Professor of  
Civil Engineering



**DR. ROBERT E. PAASWELL**

**Director Emeritus**  
Distinguished Member of ASCE  
Distinguished Professor of  
Civil Engineering



**DR. CLAIRE MCKNIGHT**

**Associate Director of Education**  
Associate Professor of Civil  
Engineering



**PENNY EICKENMEYER**

**Associate Director for Research**



**HERBERT LEVINSON**

**UTRC Icon Mentor**  
Professor Emeritus of Transportation



**NADIA ASLAM**

**Assistant Director for  
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**Senior Research Fellow**



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**Associate Director for  
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Assistant Professor of Civil  
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**DR. ANIL YAZICI**

**Post-doc/Senior Researcher**



**BENJAMIN MILLER**

**Senior Research Associate,  
Freight Programs**

# STAFF



**MATTHEW W. DAUS, ESQ**  
Distinguished Lecturer



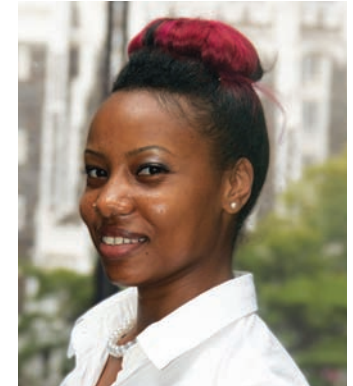
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Analyst



**ABHISHEK SINGHAL**  
Ph.D. Candidate/Research  
Associate



**SUNDARI PRASAD**  
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**TIERRA FISHER**  
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Civil Engineering, CCNY



**DAN WAN**  
Ph.D. Candidate,  
Civil Engineering, CCNY



**LINDSAY DONNELLON**  
Research Assistant



**NATHAN STODOLA**  
Research Assistant



**OTI B. AGYENIM**  
Research Assistant

# MEMBER UNIVERSITIES

## 1. CITY UNIVERSITY OF NEW YORK

The City University of New York is the nation's largest urban university. CUNY, with more than 100 nationally recognized research centers, institutes and consortia, is also one of the nation's major research institutions. Due to its urban context, many of CUNY's campuses are involved in transportation research and education. CCNY is UTRC's host campus. Faculties within several departments are actively involved in transportation research and the activities of UTRC. CCNY is also home to the CUNY Institute for Transportation Systems and the CUNY Institute for Urban Systems.

## 2. CLARKSON UNIVERSITY

Clarkson University is an institution of choice for 3,000 enterprising, high-ability students pursuing degrees in 50+ rigorous academic programs of study. Our faculty are on the leading edge of research of international relevance and offers focused graduate programs in select disciplines, however, our primary mission is undergraduate education. Across the institution, faculty and students develop close, mentoring relationships and make lifelong connections that guide career success. At Clarkson, we know that new technologies, emerging fields and expanding career opportunities require new approaches to learning.

## 3. COLUMBIA UNIVERSITY

Columbia University was founded in 1754 and is the oldest institution of higher learning in the state of New York, with enrollments of over 23,000 students in 16 schools and colleges. Columbia conducts transportation-related research through its strong departments of Urban Planning, Civil Engineering, and Industrial Engineering and Operations Research. Columbia is also home to the Earth Institute, which houses The Center for Sustainable Urban Development.

## 4. CORNELL UNIVERSITY

Founded in 1868 and being first university in the eastern United States to admit women, Cornell University today encompasses thirteen undergraduate, graduate, and professional colleges and schools. Cornell is a unique combination of public and private divisions, being both a private, nonsectarian university and the land-grant institution of New York State. Cornell is home to the Transportation Infrastructure Research Center and the Cornell Local Roads Program, New York State's Local Technical Assistance Program center.

## 5. HOFSTRA UNIVERSITY

Hofstra University offers a curriculum of your choice from about 150 undergraduate and about 160 graduate programs, in Liberal Arts and Sciences, Business, Communication, Education, Health and Human Services and Honors studies, as well as a School of Law and School of Medicine. The student-faculty ratio of 14 to 1 and a priority on teaching excellence ensures you're part of creating your own success. Hofstra has excellent library resources with extensive online and print collections, state-of-the-art classrooms, learning and laboratory facilities, and extensive wired and wireless Internet access, including the only Internet2 connection among private colleges on Long Island.

## 6. NEW JERSEY INSTITUTE OF TECHNOLOGY

NJIT is a public research university enrolling nearly 8,100 students in 92 degree programs. NJIT has built its research program around multi-disciplinary centers that encourage partnerships among various disciplines, educational institutions, private enterprise and government agencies. NJIT is home to the National Center for Transportation and Industrial Productivity, the International Intermodal Transportation Center, and the New Jersey TIDE (Transportation Information and Decision Engineering) Center.

## 7. NEW YORK UNIVERSITY

Founded in 1831, New York University is one of the largest private universities in the United States, with nearly 51,000 students. NYU is home to the Robert F. Wagner Graduate School of Public Service, which engages transportation issues through programs in Urban Planning, Public Management and Finance, and Negotiation and Conflict Resolution. NYU also is host to the Rudin Center for Transportation Policy and Management and the Institute for Civil Infrastructure Systems.

## 8. POLYTECHNIC INSTITUTE OF NYU

Polytechnic Institute of NYU, the nation's second oldest private engineering university, was founded in 1854 in Brooklyn, New York. Today, it is the New York metropolitan area's preeminent resource in science and technology education and research. In the transportation field, Polytechnic has strengths in Traffic Models, Highway Capacity and Traffic Operations, and Intelligent Transportation Systems. It is home to the Urban ITS Center, funded by the New York City Department of Transportation.

## 9. RENSSELAER POLYTECHNIC INSTITUTE

RPI was established in 1824 and has the oldest program in Civil Engineering in the English-speaking world. RPI provides vast leadership in research relating to intelligent transportation systems, transportation modeling, traffic operations, intermodal freight transportation, transportation economics, and analytical approaches to emergency management. RPI hosts the Center for Infrastructure and Transportation Studies, The Intermodal Center for Freight Security and the Lighting Research Center, which has a dedicated Transportation Lighting Group.



## 10. ROCHESTER INSTITUTE OF TECHNOLOGY

RIT is a place where brilliant minds assemble and collaborate, where they pool together their individual talents across disciplines in service of big projects and big ideas. It is a vibrant community teeming with students collaborating with experts and specialists: a hub of innovation. It is an intersection of disciplines, a launching pad for a brilliant career, and a highly unique state of mind. It is a perfect environment in which to pursue your passion. Here, the future is envisioned each day. And remade each day after.

## 11. ROWAN UNIVERSITY

Established in 1923, Rowan is a comprehensive public university serving nearly 10,000 students in a Graduate School and several Colleges. Rowan's Civil and Environmental Engineering Department conducts transportation research in the areas of pavement design, materials, rail crossing safety, structural design of bridges, and structural design and testing of transit vehicles. Other areas of transportation research include renewable energy technologies, diesel combustion, distributed instrumentation systems and smart sensors, and vehicle systems integration.

## 12. RUTGERS UNIVERSITY

Rutgers University is one of America's leading public research universities and educates over 48,000 students on its three campuses. Rutgers' Department of Civil and Environmental Engineering, Department of Industrial and Systems Engineering and Edward J. Bloustein School of Planning and Public Policy are all active in transportation research. It is home to the Center for Advanced Infrastructure and Transportation, which serves as New Jersey's center for FHWA's Local Technical Assistance Program, the Voorhees Transportation Center and the National Transit Institute.

## 13. STATE UNIVERSITY OF NEW YORK

The State University of New York's 64 geographically dispersed campuses comprise the nation's more comprehensive system of public higher education. Across this network, SUNY has many capabilities that relate directly and indirectly to transportation research: urban planning and nanotech at Albany; civil and earthquake engineering, urban planning, and transportation injury research at Buffalo; environmental mitigation and biofuels at Syracuse; port security and trade at Maritime College; thermal sprays at Stony Brook; and pavements at Farmingdale. Individual faculty members at other SUNY campuses are involved in transportation research.

## 14. STEVENS INSTITUTE OF TECHNOLOGY

Founded in 1870 in Hoboken, New Jersey, the Stevens Institute of Technology is one of the leading technological universities in the country. Research at Stevens Institute includes structural dynamics, soil-structure interaction, freight transportation, and embedded, real-time, intelligent infrastructure systems

## 15. SYRACUSE UNIVERSITY

From its founding in 1870, Syracuse University has been the embodiment of Scholarship in Action-education that transcends traditional boundaries through a combination of innovative thinking, daring choices and entrepreneurial attitude. The university's Department of Civil and Environmental Engineering offers a broad range of programs leading to the B.S., M.S. and Ph.D. degrees and it is affiliated with two research centers – The Center for Environmental Systems Engineering and the Geofoam Research Center.

## 16. THE COLLEGE OF NEW JERSEY

The College of New Jersey (TCNJ) is a highly selective institution that has earned national recognition for its commitment to excellence. Founded in 1855, TCNJ has become an exemplar of the best in public higher education and is consistently acknowledged as one of the top comprehensive colleges in the nation. TCNJ currently is ranked as one of the 75 "Most Competitive" schools in the nation by Barron's Profiles of American Colleges and is rated the No.1 public institution in the northern region of the country by U.S. News & World Report.

## 17. UNIVERSITY OF PUERTO RICO

The University of Puerto Rico was established in 1903. Transportation research at UPR is concentrated on its Mayagüez campus, which serves over 12,000 students. Its Department of Civil Engineering has an active program in natural hazards research with applications in transportation. UPR is home to the Civil Infrastructure Research Center, which was funded by FEMA, FHWA, the Puerto Rico Department of Transportation, and other partners, and the Puerto Rico Transportation Technology Transfer Center, the local center for FHWA's Local Technical Assistance Program.





**EDUCATION & TRAINING**

“UTRC prepares the transportation workforce to plan and manage the complex transportation systems of the future.”

The modern professional must combine the technical skills of engineering and planning with knowledge of economics, environmental science, management, finance, and law as well as negotiation skills, psychology and sociology. And, she/he must be computer literate, wired to the web, and knowledgeable about advances in information technology. UTRC's education and training efforts provide a multi-disciplinary program of course work and experiential learning to train students and provide advanced training or retraining of practitioners to plan and manage regional

transportation systems. UTRC must meet the need to educate the undergraduate And graduate student with a foundation of transportation fundamentals that allows for solving complex problems in a world much more dynamic than even a decade ago. Simultaneously, the demand for continuing education is growing – either because of professional license requirements or because the workplace demands it – and provides the opportunity to combine State of Practice education with tailored ways of delivering content.

## UTRC AWARDS AITE SCHOLARSHIPS

The advanced Institute for Transportation Education sponsors the AITE Graduate Scholarship to attract bright people to careers in transportation and to encourage practicing transportation professionals to keep themselves current and increase their expertise in transportation. The scholarship pays up to \$25,000 in tuition and stipends for outstanding full-time students in transportation programs at one of the six participating consortium universities. The scholarship provides tuition from the university matched by UTRC for full time students. Tuition up to a value of \$25,000 is also provided for practicing professionals. In addition, the employed AITE scholar is awarded 10 hours per week of paid work release time at the participating transportation agency. In 2012, twelve new scholars were accepted into the program. The awardees were agency employees of NYSDOT, NYMTC, and NYCT and students at Rutgers, NYU, Polytechnic, and SUNY Albany & Buffalo.

The 2012 AITE awardees are listed below:

### RECIPIENTS FROM UNIVERSITIES

#### 1. **JACQUELINE BURTON, New York University**

*Academic Advisor: Dr. Zhan Guo*

Jacqueline Burton is currently pursuing a Master's of Urban Planning at NYU Wagner, with a concentration in International Development. Her research focuses on refining the definition of urban food deserts to include the role of transportation in urban residents' ability to obtain healthy food.

#### 2. **SEAN MICHAEL COFFEY, Rowan University**

*Academic Advisor: Dr. Yusuf Mehta*

Sean Coffey is working on a UTRC and NJDOT funded project, "Correlation between Multiple Stress Creep Recovery (MSCR) Results and Polymer Modification of Binder". The purpose of the project is to develop new specifications for polymer binder modified binders for the state of New Jersey. Towards this goal, he is conducting extensive testing of hot mix asphalt consisting of broad range of polymer and non-polymer modified binders. In addition, Sean is an active member of American Society of Civil Engineers Rowan University Chapter and the Engineers without Borders at Rowan University.

#### 3. **JONATHAN DANIEL EAGELTON, Rutgers University**

*Academic Advisor: Dr. Hani Nassif*

Jonathan's Eagelton's graduate research work is to provide support for the construction and rehabilitation of several bridges for the New Jersey Turnpike Authority. The main focus of his research is to monitor the shrinkage and cracking behavior of various High-Early Strength and High Performance Concrete mixtures. One aspect of this research, as part of his thesis topic, will be to monitor the differences in shrinkage and cracking behavior of mixtures cured at different temperatures.

#### 4. **SCOTT FISHBERG, Rutgers University**

*Academic Advisor: Dr. Michael Lahr*

Scott Fishberg is a graduate student at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, concentrating in transportation and real estate. For his AITE Scholarship, Scott is examining the impact of the 2001 PANYNJ toll increase on New Jersey residential property value appreciation.

#### 5. **JOSHUA M. HERMAN, Polytechnic Institute of NYU**

*Academic Advisor: Dr. Elena Prassas*

Joshua Herman is currently pursuing a Masters of Science degree in Transportation Planning and Engineering at the Polytechnic Institute of NYU. The program stresses the design of transportation systems with an in-depth understanding of the public policies and economic forces that drive them as well as the safety of such systems and their ability to meet the public's needs.

#### 6. **HEATHER ANNE MARTIN, Rutgers University**

*Academic Advisor: Dr. Robert Noland*

Heather Martin is a second year masters student with a concentration in transportation at the Bloustein School of Planning and Public Policy at Rutgers University. Her graduate research examines a five-block corridor on 3rd Avenue in Manhattan and analyzes the interactions and conflicts between street users and modes from a safety perspective. The case study will recommend design solutions to improve safety given the existing physical conditions and usage patterns.

#### 7. **SAMUEL L. PIPER, University at Albany/SUNY**

*Academic Advisor: Dr. Catherine Lawson*

Sam Piper is currently pursuing a Masters of Urban and Regional Planning at the State University of New York at Albany. He is specializing in transportation planning, and hopes to use the theories and technical skills he has learned while in graduate school to become a transportation planner in either the public or private sector. Sam has been collecting data and using his GIS skills to produce visuals for the Town of Schodack Town Center Study. This study will use the traffic data to determine if road dieting is a feasible option to make the US Route 9 Corridor in the town more pedestrian friendly.

**8. NATHAN WOJCIK, University at Albany, SUNY**

*Academic Advisor, Dr. Catherine Lawson*

Nathan Wojcik is earning a Master’s degree in Urban and Regional Planning at the State University of New York at Albany (UAlbany). He is enrolled in Planning History, Comprehensive Planning, and Bicycle and Pedestrian Transportation courses and focus his studies on alternative transportation and sustainable design and implementation. He has also started an internship with the Institute for Infrastructure and Asset Management located in Colonie, NY. The following describes his reasoning for his research focus.

**9. THAI MINH TRUONG, University at Buffalo/SUNY**

*Academic Advisor: Dr. Qian Wang*

**RECIPIENTS FROM AGENCIES**

**10. ELLEN CAESAR-QUAYE, Polytechnic Institute of NYU**

*Academic Advisor: Dr. Elena Prassas*

Ms. Ellen Caesar is pursuing her Master’s in the Transportation Management program at the Polytechnic Institute at NYU . Her professional and scientific goal is to advance her career in her chosen area of specialization and she is eagerly anticipating having a master of science in Transportation Management. She already has the confidence that she will not only succeed in this program but to excel at it.

**11. DAWN STEWART-RILES, Polytechnic Institute of NYU**

*Agency Coordinator/Academic Advisor: Dr. Elena Prassas*

Dawn Stewart-Riles is a pursuing her Masters of Science degree in Transportation Management at Polytechnic

Institute of New York University. The program focuses on the operations and management of transportation. Ms. Stewart completed her undergraduate degree in Liberal Arts with a concentration in Public Administration and Labor Studies at City College of New York.

She is currently a Station Supervisor II with New York City Transit working in the Office of Station Programs. Her office serves as a liaison between the division of Station Environment & Operations and CPM for all capital work impacting our 468 train stations and some outside projects.

**12. RATAN M HUDA, University at Buffalo / SUNY**

*Academic Coordinator: Dr. George Lee*

Ratan Huda is persuing his Master’s Program in Bridge Engineering from the Department of Civil, Structural and Environmental Engineering at the University at Buffalo/SUNY. This program addresses the need for highly qualified individuals to plan, design, construct, and manage bridge and transportation infrastructure.

Mr. Huda works as a Bridge Designer for NYSDOT. This Master’s Program will provide him the knowledge required to take more responsibility and enhance his ability to design and review bridge projects of more complexity.



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## NYMTC/UTRC SEPTEMBER 11TH MEMORIAL PROGRAM CONTINUES

Four students have recently been selected to be 2012-13 participants in the NYMTC/UTRC September 11th Memorial Program Academic Initiative, a program which began in 2005 to honor three NYMTC staff members who died in the attack on the World Trade Center on September 11, 2001: Ignatious Adanga, Charles Lesperance and See Wong Shum. These students include Adam Davidson from the College of Staten Island (CSI), Stanislav Parfenov of Polytechnic Institute of New York University (Polytechnic/NYU), Jeremy Safran of NYU, and Simin You of the Graduate Center, City University of New York (CUNY).

1. **ADAM DAVIDSON**, a Ph.D. candidate at CSI in Earth and Environmental Sciences, will perform his internship at the New York Metropolitan Transportation Council under the direction of NYMTC Sustainability Manager Larry McAuliffe. Adam's topic will be Greenhouse Gas (GHG) Emission Reduction Implementation Planning, which will involve development of selected regional transportation strategies for reducing GHG emissions, including evaluation of potential strategies for implementation by NYMTC member agencies and development of white papers that discuss the relative merits of the strategies, including amount of potential reduction, practical steps to implement the strategy, the cost of the strategy, and inclusion of case study information.



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2. **STANISLAV PARFENOV**, a master's of science candidate in civil engineering at Polytechnic/ NYU, will work in the New York City Department of Transportation (NYCDOT) Division of Traffic and Planning. His NYCDOT supervisor is Mike Marsico. The work will focus on effects of street closures on New York City's street network through the development of dynamic and static simulation models, which will be based on datasets of newly created NYCDOT's Traffic Information Management System supplemented by taxi GPS data from the NYC Traffic and Limousine Commission.

3. **JEREMY SAFRAN**, a master's of urban planning candidate at NYU will also intern at NYCDOT with the Transit Development Group within the Division of Traffic and Planning. His internship will assess bus lanes in New York City, including the assembly of data on a wide variety of bus lane features such as signage, design, color, regulation, and enforcement and on bus performance. The research will result in a best practices document that describes and interprets the findings. The goal of this effort is to assist DOT in implementing bus lane infrastructure that maximizes performance for both Select Bus Service and regular transit buses. Jeremy's supervisor at NYCDOT is Eric Beaton.

4. **SIMIN YOU**, a Ph.D candidate in computer science at the Graduate Center, CUNY will be interning with the NYCDOT Office of Research, Implementation, and Safety under the direction of Matthew Roe. Simin's internship will focus on developing data management and analysis tools and consists of two major components: improving the existing Safety Data Viewer, and providing other management and analysis tools for transportation research and planning needs. Simin will also work closely with transportation professionals and get in touch with real world transportation data management and analysis problems. By applying state-of-the-art GIS and database management techniques, the research should result in efficient solutions to transportation problems, helping support the core missions of NYCDOT.

## UTRC HOSTS FRENCH VISITORS



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

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)

## AWARD RECIPIENTS

### UTRC STUDENT OF THE YEAR

#### KRISTEN DEREWECKI

##### Rutgers, The State University of New Jersey

In recognition of her outstanding academic performance, the technical merit of her research topic, and her service to the university community, the UTRC Region II is pleased to select Kristen Derewecki as its 2011 Outstanding Student of the Year. Ms. Kristen was selected from an outstanding pool of regional candidates including those working on UTRC sponsored research projects and those participating in the AITE Graduate Scholarship Program.

### UTRC WOMEN'S TRANSPORTATION SEMINAR AWARD WINNER (LEONARD BRAUN MEMORIAL GRADUATE SCHOLARSHIP)

#### STACI A. HABER, NYU Wagner

UTRC co-sponsored the 2012 Leonard Braun Memorial Graduate Scholarship award (WTS), given to Staci A. Haber. Staci is enrolled in the NYU Wagner School of Public Service's Master program, specializing in Environment, Infrastructure, and Transportation. She received her Bachelor of Arts in Urban Studies from the New College of Florida, the Honors College of the State University system. Ms. Haber completed an Honor's thesis, which researched the feasibility of suburban transit and reducing automotive dependency in the United States. Ms. Haber also participated in the Leadership and International Fellowship Experience (LIFE), a leadership program through which she interned in Israel and India, focusing on the relationship between social justice and transportation access. At LEA Associates South Asia Pvt Ltd, one of India's top civil engineering firms, she promoted accessibility and equity as part of the City of Hyderabad's Comprehensive Transportation Study.

Ms. Derewecki is a Master's of Science candidate at the School of Engineering at Rutgers, the State University of New Jersey. Kristen's graduate thesis is on developing specifications to use the 4 mm Dynamics Shear Rheometer (DSR) parallel plates to performance grade asphalt binders.

She is also active in the Rutgers community as Bunting--Cobb Graduate Mentor for Women in Science, Technology, Engineering and Math, where she fosters the academic, professional and personal development of the residents through regular interactions, programming, and mentoring sessions.

As part of the UTC award, each student attends the Annual Meeting of the Transportation Research Board, is feted at an awards dinner, and receives \$1,000 prize. Please visit the following link for more information: <http://www.utrc2.org/education/student-award-recipients>



Kristen Derewecki receiving the award from Gregory D. Winfree, Deputy Administrator of RITA



From left: Scholarship Winner Staci Haber; WTS-GNY Scholarship Committee Chair Ellen Zielinski; Scholarship Winner Marissa Peragine; and WTS-GNY President Mary K. Murphy.

Ms. Haber is currently interning at the New York City Department of Transportation, where she is coordinating the Mobility Management program which is designed to improve transportation accessibility in the greater New York region.



**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](http://www.ITS-NY.org) for more information.



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

**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



Dr. Neville Parker and former Provost of CCNY with trainees and representative from Abu Dhabi DoT

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 onthe-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/CUNYITS-to-Help-Train-Abu-Dhabi-Department-of-TransportPersonnel.cfm>



Former CCNY Provost Martin Mostkovits (left) and H.E. Mohamed Hareb Al Yousef, Executive Director of the Abu Dhabi Department of Transport (DoT), signed memorandum of understanding.



**RESEARCH**

“The UTRC research program addresses the needs of regional transportation.”

The research program objectives are (1) to develop a theme based transportation research program that is responsive to the needs of regional transportation organizations and stakeholders, and (2) to conduct that program in cooperation with the partners. The program includes both studies that are identified with research partners of projects targeted to the theme, and targeted, short-term projects. The program develops competitive proposals, which are evaluated to insure the most responsive UTRC team conducts the work. The research program is responsive to the UTRC theme: “Planning and Managing Regional Transportation Systems in a Changing World.” The complex transportation system of transit and infrastructure, and the rapidly changing environment impacts the nation’s largest city and metropolitan

area. The New York/New Jersey Metropolitan has over 19 million people, 600,000 businesses and 9 million workers. The Region’s intermodal and multimodal systems must serve all customers and stakeholders within the region and globally. Under the current grant, the new research projects and the ongoing research projects concentrate the program efforts on the categories of Transportation Systems Performance and Information Infrastructure to provide needed services to the New Jersey Department of Transportation, New York City Department of Transportation, New York Metropolitan Transportation Council , New York State Department of Transportation, and the New York State Energy and Research Development Authority and others, all while enhancing the center’s theme.

## NEWLY FUNDED PROJECTS AT UTRC

### ADAPTIVE TRAFFIC SIGNAL CONTROL SYSTEM (ACS LITE) FOR WOLF ROAD, ALBANY, NEW YORK

#### Principal Investigators:

Dr. Xuegang (Jeff) Ban, Dr. Camille Kamga, Dr. Xiaokun (Cara) Wang, Dr. Kyriacos Mouskos

#### Performing Universities:

Rensselaer Polytechnic Institute, City University of New York

#### Sponsor(s):

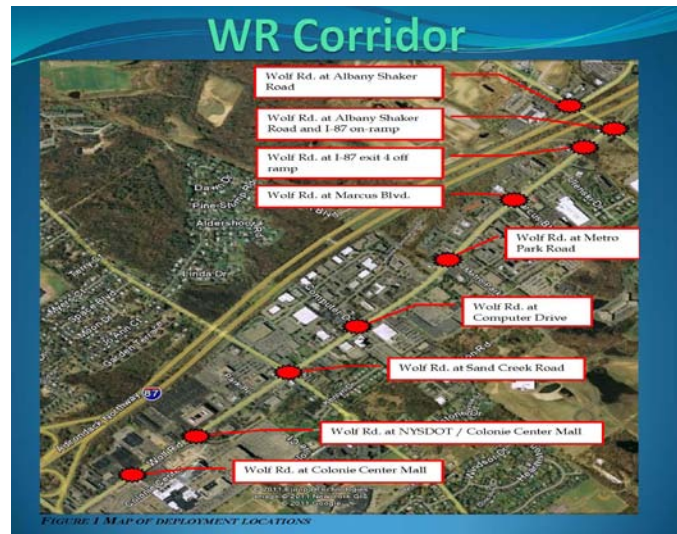
New York State Department of Transportation (NYSDOT), Research and Innovative Technology Administration

Adaptive Control Software Lite (ACS-Lite) is a low cost signal timing optimization system that dynamically adjusts signal timing to meet current traffic demands. Through a public-private partnership between FHWA, Siemens, The University of Arizona, Purdue University, Siemens/Eagle, Econolite, Quixote/Peek and McCain Traffic ACS-Lite was developed. As stated in the RFP field tests of ACS-Lite have resulted in estimated annual user cost savings ranging between \$88,000 and \$757,000. This system, if successfully demonstrated, could be implemented in some of the New York State (NYS) corridors where variability and unpredictability in traffic demand results in excessive delay and stops that cannot be reasonably accommodated by updating coordinated signal timing parameters.

The research team assembled for this contract includes UTRC member Rensselaer Polytechnic Institute (RPI) and the City College of New York (CCNY), and non-UTRC members Siemens ITS, SenSys Networks, Annese and Associates, Inc. Hereafter, the study team shall be referred to as the Consultant and the NYSDOT Project Manager/ Technical Working Group will be referred to as NYSDOT.

The main objectives of this research project are to:

Demonstrate and evaluate the Siemens ACS-Lite technology and signal timing optimization system at nine (9) signalized intersections along Wolf Road in Albany, N.Y.; Deploy a SenSys Arterial Travel Time (ATT) system to allow the collection of arterial and volume data along this corridor; Conduct a Before-and After traffic study on Wolf Road in Albany, N.Y., to assess the operation and cost benefits of the ACS Lite software and hardware applications; Document in a final report the results of the study, including findings, conclusions and recommended improvements to future deployments.



### IMPACT ANALYSIS OF RECREATIONAL TRANSIT SERVICES ON LOCAL COMMUNITY ECONOMIC DEVELOPMENT, EMPLOYMENT AND SPENDING

Principal Investigator: Dr. Devajyoti Deka

Institution: Rutgers University

Sponsor(s): New Jersey Department of Transportation (NJDOT)

The New Jersey Department of Transportation is soliciting proposals for a study that will quantify the economic and congestion-relief benefits from transit service to recreational activities in three specific market areas. Transit service to these market areas is provided by NJ TRANSIT.

New Jersey residents use the services provided by NJ TRANSIT for various purposes. While a large proportion of the system's customers use commuter rail, light rail, and buses for commuting purposes, many also take advantage of the system's expanse to participate in recreational, sporting, and cultural activities at beaches, amusement parks, performing arts centers, stadiums, and arenas. The proposed study will quantify the economic and congestion-relief benefits attributable to public transportation pertaining to recreational activities in New Jersey by focusing on three specific market components served by NJ TRANSIT.

These three market components are: (a) the Prudential Center arena in downtown Newark, (b) the communities served by the North Jersey Coast Line (NJCL) between Red Bank and Bay Head, and (c) the communities served by the Philadelphia-Cape May bus service with an emphasis on the Wildwood/Cape May area.

## ROAD WEATHER INFORMATION SYSTEM (RWIS) STATEWIDE IMPLEMENTATION PLAN

**Principal Investigator:** Dr. Steven I-Jy Chien

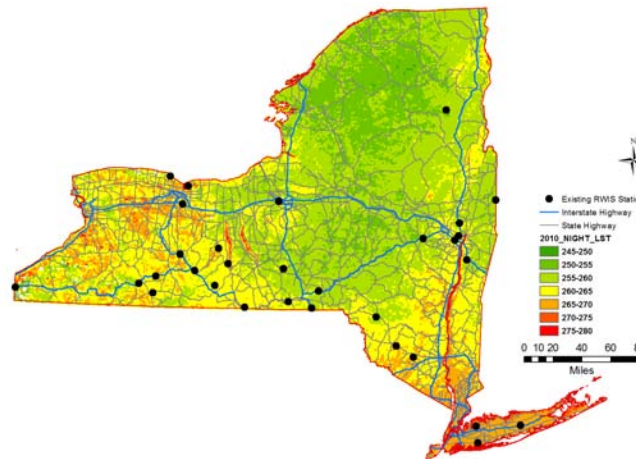
**Institution:** New Jersey Institute of Technology

**Sponsor(s):** New York State Department of Transportation (NYSDOT), Research and Innovative Technology Administration / USDOT (RITA)

The road weather information system (RWIS) network is a collection of environmental sensor stations (ESS), which gives state DOTs unprecedented access to detailed, accurate, timely, and roadway-relevant weather information to effectively and efficiently promote safety, mobility and productivity in the face of weather-related challenges. ESSs currently installed across the United States are providing valuable road weather data to the DOTs, which have been integrated into winter maintenance decision support systems (MDSS) to assist maintenance managers about road treatments, such as salting, plowing, or a combination of approaches. The NYSDOT has a very limited network of RWIS stations in various states of disrepair. A comprehensive plan is needed to upgrade (if appropriate) and expand the existing network to better serve current operational needs and support a future MDSS.

The objective of this project is to develop a detailed plan for deploying a statewide RWIS to support both current NYSDOT operations and future use MDSS applications. To develop the RWIS implementation plan, various information and data sources shall be visited, including the current condition of NYSDOT's RWIS network, potential RWIS station sites, data needed for supporting statewide MDSS applications, and NYS meteorological zones. A GIS-based model shall be developed to optimize the RWIS network, considering contiguous segments having similar maintenance requirements by associating them with features that can affect the degree of required road maintenance (e.g. topography, meteorology, traffic, etc.). Optimally, the RWIS network shall allow winter road maintenance agencies to make decisions based on accurate and timely weather information, which ultimately leads to a higher level of

service and reduced weather-related congestion delay and accidents, reduced cost, redundancy and environmental/ecological impacts, more efficient use of manpower, contractor services, fleet, and asset management, and increased accountability resulting in more prudent and efficient spending. It is expected that the efficient and effective RWIS network used in conjunction with a future NYSDOT MDSS model will achieve significant operational savings while maintaining acceptable levels of service, particularly in the winter months.



## FREIGHT-TRICYCLE OPERATIONS IN NEW YORK CITY

**Principal Investigators:** Dr. Alison Conway, Dr. Camille Kanga

**Institution:** City University of New York

**Sponsor(s):** New York State Energy Research and Development Authority (NYSERDA)

The objectives of this project is to evaluate and quantify the benefits of using freight-tricycles compared to motorized vehicles for urban delivery in Manhattan, and to examine the feasibility of using freight-tricycles as part of a HAACP certified supply-chain. 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, travel-time reliability, and parking performance of freight-tricycles operating in the city's unique conditions, to understand the feasibility for using freight-tricycles for HAACP

certified food delivery, and to identify the emissions benefits of a modal shift.

## OFFSHORE WIND (OSW) DEVELOPMENT RESEARCH

**Principal Investigators:** Dr. Shmuel Yahalom, Dr. Kaan Ozbay

**Institutions:** State University of New York (SUNY), Rutgers University

**Sponsor(s):** New Jersey Department of Transportation (NJDOT), Research and Innovative Technology Administration / USDOT (RITA)

## OBJECTIVES

The objective of this research project "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 will 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. This research will include a comprehensive literature review related to offshore wind installation support including the provision of vessels and port infrastructure. The offshore wind farm equipment characteristics will be used to identify the appropriate maritime assets to carry the project to its implementation. The study will identify the maritime equipment needs, based on U.S. standards, in order to carry out the development plan throughout all the phases of the offshore wind farm life.

## IIMS STATEN ISLAND WEB AND SMARTPHONE DEVELOPMENT, DEPLOYMENT AND EVALUATION PICTURE 1

**Principal Investigators:** Dr. Adel W. Sadek, Dr. Elena Prassas, Dr. John C Falcocchio

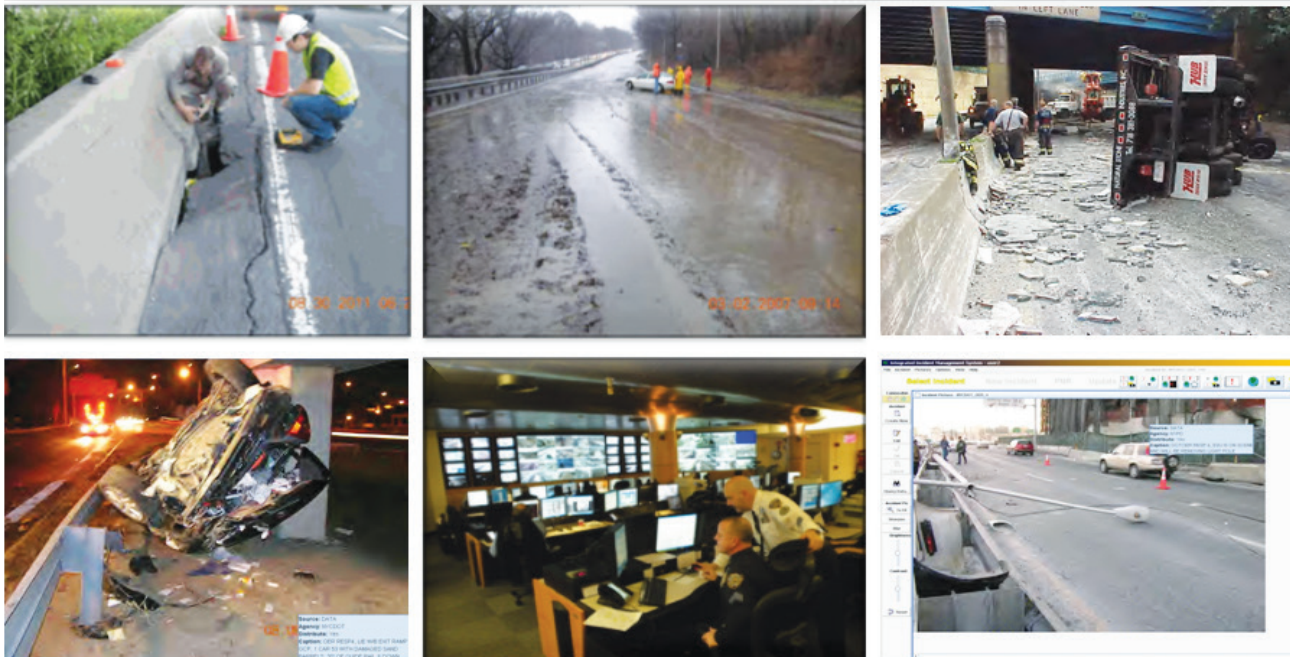
**Institutions:** State University of New York (SUNY), Polytechnic Institute of NYU

**Sponsor(s):** New York State Department of Transportation (NYSDOT)

The overall objectives of the Integrated Incident Management System (IIMS) are to collect and communicate incident data (location, type / severity, digital images, and expedited reporting) among agencies providing emergency response and incident / traffic / transit / emergency management services for the purpose of improving the incident response and clearance process, thus reducing congestion/emissions and enhancing highway safety to both the responder and multiple users along the transportation corridors.

The objective of this project is to implement an enhanced version of the IIMS along the primary transportation corridors (I-278 /440) on Staten Island, and to conduct an evaluation of the system focused on the system requirements from a user perspective, including both users as well as travelers. Results from the evaluation of the study will be used to guide further enhancements of the IIMS in the future, and to pave the way for its deployment in areas outside the metropolitan NYC area (e.g. Upstate NY). A key feature of the enhanced IIMS will be a hand-held client, which will provide the mechanism to gather increasing volumes of incident data that will then be shared with all IIMS client agencies providing enhanced coordination of multiagency incidents and enhanced situational awareness. The collection of a subset of IIMS data and the ability to review IIMS data by low cost handheld devices that are already deployed by many client agencies is a major change to the IIMS concept of operations.

## Integrated Incident Management System (IIMS)



## LANDFILL CLOSURE WITH DREDGED MATERIALS DESKTOP ANALYSIS

**Principal Investigators:** Dr. Robert Miskewitz, Dr. Christopher G. Uchrin

**Institution:** Rutgers University

**Sponsor(s):** New Jersey Department of Transportation (NJDOT), Research and Innovative Technology Administration USDOT (RITA)

Traditional dredged material placement capacity in New Jersey is extremely limited. Traditionally, materials derived from dredging projects are placed in Confined Disposal Facilities (CDF), an upland area that consists of an earthen dike in which dredged material is placed within. The NJDOT has recently inventoried and sampled the existing CDFs and has identified that these existing CDFs are reaching capacity. 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 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 be created to evaluate landfill closure with dredged material and each site will be ranked.
- A Phase 1 Environmental Site Investigation will be conducted of the priority sites to identify unknown potential issues or concerns.

## UTRC FACULTY DEVELOPMENT MINIGRANTS

The University Transportation Research Center strives to stimulate innovative and imaginative research by faculty in new and emerging areas related to transportation. The UTRC Faculty Development Minigrants seeks to fund faculty members in the development of a research working paper in their area of interest. The topic of the paper can involve any area of transportation including engineering, policy,

economics, planning, travel behavior, sociology, management, law, and technology. The working papers are completed within a year and then independently peer-reviewed and ranked. The author of the best paper is then eligible to receive an additional substantial grant to serve as Principal Investigator for a full-scale study on the topic.

### PROJECT AWARDED

### MINI GRANT RECIPIENT/INSTITUTION

*Developing Self-Cleaning And Air Purifying Transportation Infrastructure Components To Minimize Environmental Impact Of Transportation Innovative Freight Logistics Partnering In The Material Reuse Sector*

**Dr. Alexander Orlov / Stony Brook University/SUNY**

*Effectiveness-Based Pavement Preservation Selection Based on Statistical Analysis of Long Term Pavement Performance Data*

**Dr. Hao Wang / Rutgers University**

*Narratives Of Transportation Planning: An Archive Of Documents And Oral Histories*

**Dr. Robert Noland / Rutgers University**

*National Aviation Security to Cyber-terrorism: An Integrated Framework to Quantify the Economic Impacts of Cyber-terrorist Behavior*

**Dr. JiYoung Park / University at Buffalo/SUNY**

*Real-time Dynamic Pricing for Bicycle Sharing Programs*

**Dr. Changyun Kwon / University at Buffalo/SUNY**

*Sidewall Collapse Of Underground Structures Due To Loss Of Lateral Support Under Internal Blast Loading*

**Dr. Huabei Liu / The City College of New York / CUNY**

*Street Standards as Parking Policy: Identifying Residents' Willingness to Pay*

**Dr. Zhan Guo/ New York University**

*Subsurface Imaging of Corrosion in Painted Steel Bridges*

**Dr. Alexey Sidelev / Polytechnic Institute of NYU**

*The Effects of Public-Private Partnerships on Traffic Safety: Evidence from Mexico*

**Dr. Rick Geddes / Cornell University**

## NEWLY FUNDED PROJECTS AT UTRC

The following table provides a list of most recent projects awarded by UTRC. The detail of each project is available on the UTRC website.

### FACULTY INITIATED/OUTSIDE THE BOX/COOPERATIVE AWARDS

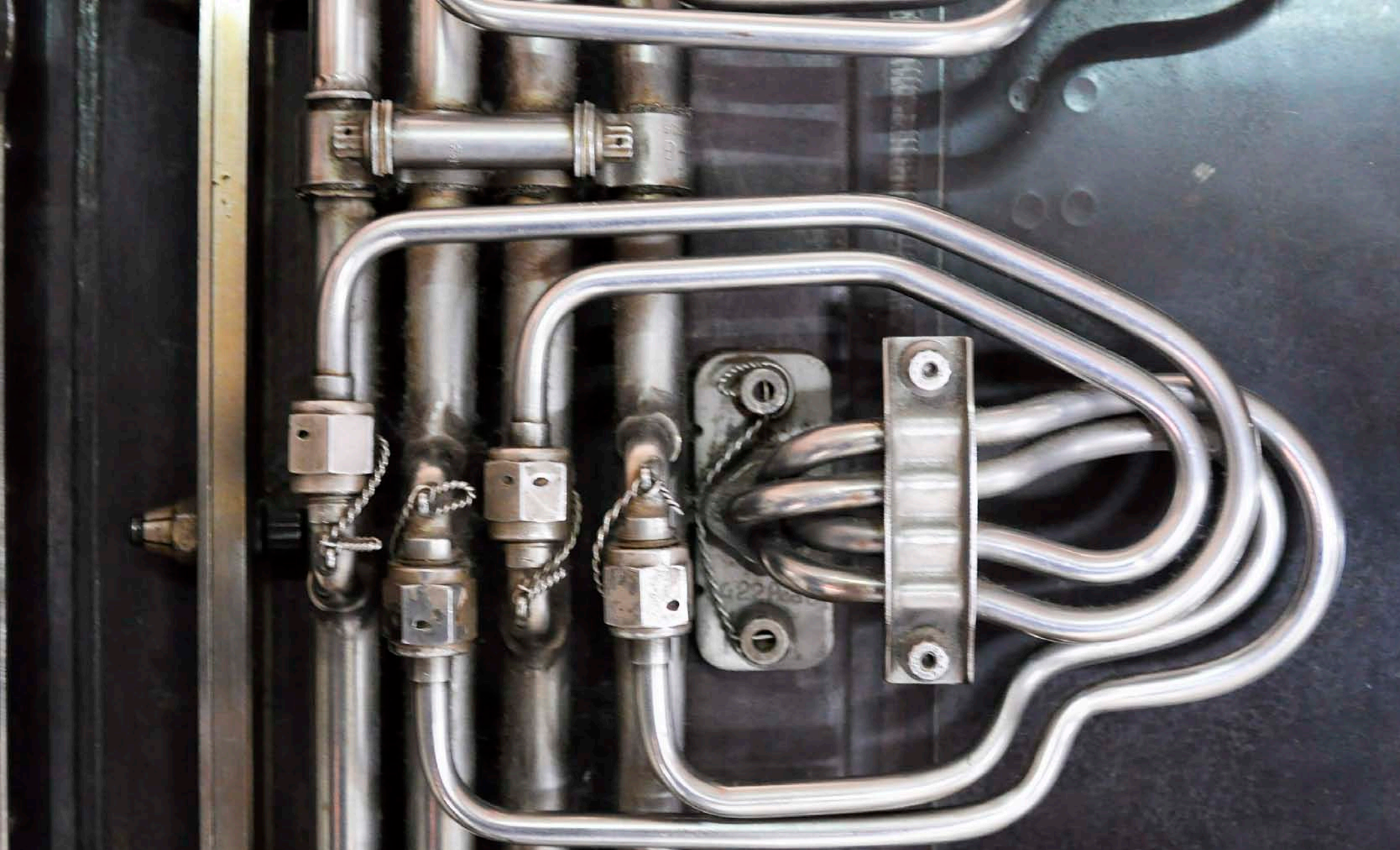
PROJECT TITLE	PRINCIPAL INVESTIGATOR	INSTITUTION
Robotic Inspection of Bridges Using Impact-Echo Technology	Jizhong Xiao	CCNY/CUNY
Planning Level Assessment Of Greenhouse Gas Emissions For Alternative Transportation Construction Projects	Robert Noland	Rutgers
Empowering Individuals to Make Environmentally Sustainable and Healthy Trans. Choices in Mega-Cities through a Smartphone App	Ywan Zheng	QC/CUNY
On-Road Energy Harvesting for Traffic Monitoring	Lei Zuo	Stony Brook/SUNY
Determine Viscoelastic Mechanical Properties of Warm Mix Asphalt (WMA)-Reclaimed Asphalt Pavement (RAP) Mixes under High Stresses in Airfield Flexible Pavements and Its impact on Design Life.	Yusuf Mehta	Rowan
The Role of Social Media in Improving the Safety and Efficiency of Traffic Operations during Non-Routine Events such as Incidents and Planned Special Events	Al Wallace	RPI
Data Collection And Econometric Analysis Of The Demand For Nonmotorized Transportation	Ricardo Alvarez Daziano	Cornell
Energy Savings from Transit Passes: An Evaluation of the University at Buffalo NFTA Transit Pass Program for Students, Faculty, and Staff	Daniel Hess	UB/SUNY
Leveraging Brightness from Transportation Lighting Systems through Light Source Color	John Bullough	RPI
Analysis of Environmental, Economic, and Infrastructure Impacts of Transportation Activities Associated with High Volume Horizontal Fracturing Operations in the Marcellus Shale Formation Using the Geospatial Intermodal Freight Transport (GIFT)	Karl Korfmacher	RIT
A GIS-based Performance Measurement System for Assessing Transportation Sustainability and Community Livability	Qian Wang	UB/SUNY
Use of Web-Based Rider Input for Transit Management in the New York City Region	Mitchell Moss	NYU
Promoting Transportation Flexibility in Extreme Events through Multi-Modal Connectivity	Rae Zimmerman	NYU
Automating the Reporting and Progress Monitoring Process using Mobile Computers for Highway Construction Projects	Didier Valdes	UPR
Energy Efficient and Environmental Friendly Cement Free Concrete (CFC) for Pavement and Bridge Deck Application	Sulapha Peethamparan	Clarkson
Speed and Design Consistency of Combined Horizontal and Vertical Alignments in Two-Lane Rural Roads	Alberto Figueroa	UPR



PROJECT TITLE	PRINCIPAL INVESTIGATOR	INSTITUTION
Modeling Disaster Operations from an Interdisciplinary Perspective in the New York-New Jersey Area	Kaan Ozbay	Rutgers
Investigation of the Carrs Creek Geofoam Project	Dawit Negusse	Syracuse
Assessing Behavior Changes under the Influence of Travel Demand Management Strategies	Cara Wang	RPI
Major Workforce Challenges Confronting New York City's Transit Industry	Lesley Hirsh	Graduate Center/CUNY
Improving Transportation Engineering Education By Applying The Inverted Classroom Concept	Ivette Cruzado	UPR
Air Quality Impact of Traffic Congestion in Midtown Manhattan	Masoud Ghandehari	POLY
Metrics and Performance Response Functions for Assessment of Resilience of Urban Infrastructure System	Priscilla Nelson	NJIT
Optimum Fund Allocation to Rehabilitate Transportation Infrastructure	Jay Meegoda	NJIT

**EMERGING SCHOLAR /RESEARCH CLUSTER/ED-TECH TRANSFER AWARDS  
(including Mini grants listed above)**

Alternative Fuel Vehicle Technology Conference	Yolanda Rodriguez	BCC/CUNY
GPS Research Cluster Team for Transportation	Hongmian Gong	Hunter College/CUNY
A Proposal for a Research Cluster on Connected Vehicles and Cyber Transportation Systems Research	Adel Sadek	UB/SUNY
Financing high speed rail in the U.S. and France: the evolution of public-private partnerships	James Cohen	John Jay/CUNY
The Outdoor Lighting Institute	Mark Rea & John Bullough	RPI



**TECHNOLOGY TRANSFER**

“ UTRC’s Technology Transfer program goes far beyond what might be considered traditional .”

UTRC’s Technology Transfer Program goes beyond what might be considered “traditional” technology transfer activities. Its main objectives are (1) to increase the awareness and level of information concerning transportation issues facing Region 2; (2) to improve the knowledge base and approach to problem solving of the region’s transportation workforce, from those operating the systems to those at the most senior level of managing the system; and by doing so, to improve the overall professional capability of the transportation

workforce; (3) to stimulate discussion and debate concerning the integration of new technologies into our culture, our work and our transportation systems; (4) to provide the more traditional but extremely important job of disseminating research and project reports, studies, analysis and use of tools to the education, research and practicing community both nationally and internationally; and (5) to provide unbiased information and testimony to decision-makers concerning regional transportation issues consistent with the UTRC theme.

## UTRC VISITING SCHOLAR SEMINARS

### **DR. CLIFFORD WINSTON PRESENTED ON “PERFORMANCE AND POLICY REFORM OF THE US TRANSPORTATION SYSTEMS”**

Dr. Winston presented a Visiting Scholar Seminar on April 13th, 2012 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. DANIEL GRAHAM PRESENTED ON “WIDER ECONOMIC BENEFITS OF TRANSPORT INVESTMENT AND THE ROLE OF AGGLOMERATION ECONOMIES”**

On April 27th, 2012, Dr. Daniel 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 specializes in the statistical modeling of transport systems. His main research themes are concerned with the implications of transport investment for productivity and economic growth; modeling 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 modeling, 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 DELIVERED A PRESENTATION ON “CONNECTING THE DOTS: FUTURE HOUSING DEVELOPMENT IN POST-RECESSION AMERICA”**

Oliver Hartlben, 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>

**DR. SUE MCNEIL DELIVERED A PRESENTATION ON "MEASURING TRANSPORTATION INFRASTRUCTURE PERFORMANCE: INSIGHTS AND CHALLENGES"**

Dr. McNeil presented a Visiting Scholar Seminar on December 14th, 2012 on the topic, "Measuring Transportation Infrastructure Performance: Insights and Challenges". Sue McNeil is the principal investigator for the CAIT affiliate at University of Delaware - CAIT at UD. She is Professor of Civil and Environmental Engineering and Urban Planning and Public Affairs at University of Delaware and Director of the Tier 2 University Transportation Center. She is also the former Director of the Disaster Research Center at University of Delaware. Her research and teaching interests focus on transportation infrastructure management with emphasis on the application of advanced technologies, economic analysis, analytical methods, and computer applications. Her most recent research includes the impact of natural hazards on physical infrastructure and asset management.

She mentioned in her presentations that the transportation infrastructure in the United States serves as a foundation for economic competitiveness, and quality of life. Understanding how transportation infrastructure

performance changes over time and quantifying the relationship between transportation infrastructure performance and economic growth helps us to improve infrastructure performance strategically. The Transportation Performance Index (TPI) was constructed for the period 1990 to 2009 using a replicable and transparent process. The process and data used, and the relationship with economic growth are discussed, as well as the role of the index in communicating national needs, and the importance of infrastructure.

To access Dr. McNeils's presentation and seminar video, please follow the link below! <http://www.utrc2.org/events/measuring-transportationinfrastructure-performance-insights-andchallenges>



## UTRC BOOK TALK SERIES

### **HUMAN TRANSIT: HOW CLEARER THINKING ABOUT PUBLIC TRANSIT CAN ENRICH OUR COMMUNITIES AND OUR LIVES**

Jarrett Walker, Principal Consultant with MRCagney in Australia and a Freelance Consultant in North America delivered a presentation on his book, human transit on February 6th 2012 at the Graduate Center, CUNY. The event was well attended and received a positive feedback from the audience.

### **BOOK SYNOPSIS**

Public transit is a powerful tool for addressing a huge range of urban problems, including traffic congestion and economic development as well as climate change. But while many people support transit in the abstract, it's often hard to channel that support into good transit investments. Part of the problem is that transit debates attract many kinds of experts, who often talk past each other. Ordinary people listen to a little of this and decide that transit is impossible to figure out. Jarrett Walker believes that transit can be simple, if we focus first on the underlying geometry that all transit technologies share. In *Human Transit*, Walker supplies the basic tools, the critical questions, and the means to make smarter decisions about designing and implementing transit services. *Human Transit* explains the fundamental geometry of transit that shapes successful systems; and the local choices that lead to transit friendly development. At the heart of the book is a challenge to land use planners and architects to respect the intrinsic geometry of transit networks at the earliest stages of development, in the same way that

all development respects the intrinsic geometry of road networks. It's fun to imagine that some new technology will make transit work in a new way, but as Walker cautions, "technology never changes geometry." He goes on to show that respect for transit's geometry can unleash a flood of new ideas, from new ways to "repair" the suburban arterial to new strategies for envisioning the urban structure.

### **TRANSPORT, THE ENVIRONMENT AND SECURITY - MAKING THE CONNECTION**

On December 12, 2012, Dr. Rae Zimmerman presented at the UTRC Book talk series for her latest book on "Transport, the Environment and Security – Making the Connection" at New York University. Rae Zimmerman is a Professor of Planning and Public Administration, Director of the Urban Planning Program and the Director of the Institute for Civil Infrastructure Systems (ICIS) at NYU-Wagner. She teaches and conducts research in environmental management and planning, urban infrastructure, and environmental health risk management, and the socioeconomic dimensions of environmental and transportation infrastructure. She is a Fellow of the American Association for the Advancement of Science and a past president and Fellow of the international Society for Risk Analysis. Her presentation induced a lot of interest in the audience on the major finding in her book.

### **BOOK SYNOPSIS**

Effective means of transport are critical under both normal and extreme conditions, but modern transport systems are subject to many diverse demands. Synthesizing existing data, new analyses, and a rich set of case studies, the book uses transportation networks as a framework to draw together the typically conflicting arenas of transport, the environment and security, and provides collective solutions

to their respective issues and challenges. From a primarily urban perspective, the author illustrates that the fields of transportation, environment (with an emphasis on climate change) and security (for both natural hazards and terrorism) and their interconnections remain robust areas for policy and planning. The US rail transit system, ecological corridors, cyber security, planning mechanisms and the effectiveness of technologies are among the topics explored in detail. Case studies of severe and potential impacts of natural hazards, accidents, and security breaches on transportation are presented. These cases support the analyses of the forces on transportation, land use and patterns of population change that connect, disconnect and reconnect people from their environment and security. The book is aimed at academics, students, and practitioners across a wide range of fields including: transport planning and policy, environmental economics, environmental management, urban planning, public policy, and terrorism and security.



Dr. Rae Zimmerman presenting her book

## SEPTEMBER 11TH 2011-12 INTERNS PRESENT AT THE NYMTC BROWN BAG PROGRAM

On September 19, 2012, the three NYMTC/UTRC September 11th Memorial Program Academic Initiative participants from this past year discussed their research in final presentations at a NYMTC Brown Bag lunch program. The three speakers were former UTRC students Cyrus Naheedy, Shuai Ren, and Maxwell Sokol.

**CYRUS NAHEEDY** interned at the Port Authority of New York and New Jersey in the Office of Planning and Regional Development. Under the supervision of Nichola Angel, Sr. Transportation Planner/Modeler, his work assisted the LaGuardia Airport Access Alternatives Analysis that was co-sponsored by several transportation agencies in the Region. Cyrus's research contributed to the modeling effort for ground access and mode choice to help gain a clearer picture of ridership analysis and travel times. His work also included expansion and development of the consultant's modeling data of LaGuardia Airport to apply the analysis to the other Port Authority Airports - Newark Liberty, John F. Kennedy, and Stewart. Cyrus graduated in May 2012 from Polytechnic Institute of New York University with a master's of science degree in transportation planning and engineering and recently started working at Sam Schwartz Engineering as a transportation engineer.

**SHUAI REN** presented the results of her research with the New York City Department of Transportation's Traffic and Planning Division on a pilot curbside space program known as the Pop-up Café project. Shuai's NYCDOT supervisor was Ed Janoff, Public Spaces Operations Manager. Her Pop-up Café

work led to an evaluation report, which will ultimately be distributed by NYCDOT staff to community boards for further reference regarding a permanent program to be launched in the spring of 2013. Shuai is currently employed by the World Bank's Beijing office as a consultant in the Urban Transport Group and will focus on introducing global best practices of non-motorized transport and transit oriented development to Chinese cities. She graduated from NYU's Wagner School of Public Service in May 2012 with a master's of urban planning degree.

**MAXWELL SOKOL** presented his research, which was undertaken at NYMTC's office under the direction of Jan Khan, Manager, and Regional Planning. Max's work focused on developing a guidebook for NYMTC that provides step-by-step instructions for conducting the infrastructure needs assessment of the Regional Transportation Plan (RTP). This process involved collaboration with the NYMTC members. The primary objectives of the project were to enhance the NYMTC data collection process for and to assist with the development of the financial analysis for the 2015-2040 RTP. His presentation highlighted his efforts, which included the development of an inventory of transportation system components under the member agencies' jurisdiction; discussion of member agencies' methodologies for forecasting the needs for transit, pavement, bridges, and non-motorized transportation infrastructure; and the collection of cost estimates and documentation of assumptions from member agencies for the needs forecast of the 2015-2040 RTP. Max graduated with a master's of science in urban planning degree in May 2012 from the Graduate School of Architecture, Planning and Preservation at Columbia University. He is now working at Parsons Brinckerhoff (PB) as a planner in their New York City office.



Left to Right: Maxwell Sokol, Joel Ettinger, Director of NYMTC, Penny Eickemeyer, and Cyrus Naheedy

## 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](http://www.connectedvehicleworkshop.com)

## INTELLIGENT TRANSPORT SYSTEMS (ITS) IN HONG KONG: RECENT DEVELOPMENT & FUTURE APPLICATIONS

Dr. William 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, delivered a presentation on the Hong Kong ITS Systems at the NYU on August 6th, 2012. Dr. Lam pointed



Paul Brubaker, President and COO, Silver Lining, Session Moderator at Connected Vehicle workshop



Dr. Adel Sadek, Associate Professor, University at Buffalo/SUNY

out that various data collection methods and advanced techniques have been developed in the past decade for estimation of real-time traffic information in freeway and/or expressway corridors. New systems have recently been developed for estimation of real-time travel times on major roads in congested urban areas of Hong Kong. The seminar has given an overview of recent development of intelligent transport systems (ITS) in Hong Kong together with future potential applications. It covered various ITS development in Hong Kong including their applications and validation results. Future research on this important topic was also be discussed together with the related research works that have recently been carried out in the Hong Kong Polytechnic University.

To access Dr. Lam’s presentation, please visit our website at: <http://www.utrc2.org/events/intelligent-transport-systems-HK>



Dr. Kaan Ozbay, Rutgers University and Dr. William Lam with students



## 2012 INTERNATIONAL ASSOCIATION OF TRANSPORTATION REGULATORS (IATR) CONFERENCE

The 2012 IATR Conference was held on November 14-17, 2012 at Four Seasons Hotel, Washington, DC. The three days conference captured government, industry and regulator's perspective on various transportation issues. The focus areas on each day were: Day 1 – "Day on the Hill" and Concurrent Workshops Day 2 - The Future of Ground Transportation and Technology Day 3 - Regulatory Reforms: Research, Safety and the Customer Experience The 2012 IATR Conference examined the scale of mobile app design, mobile app development and its effects on a global transportation industry. The conference highlighted various innovations that are surfacing for taxi and limousine transportation arrangements, which may affect the future of Smartphone app development for the transportation industry.

For more details, please visit the conference website at : <http://www.iatr.org/2012>



Dr. Kamga and Daus with Congressman Timothy Bishop during the IATR visit at the U.S. Capitol



Dr. Kamga and Daus with Congresswoman Yvette Clarke during the IATR visit at the U.S. Capitol



Matt Daus with Congressman Peter King during the IATR visit at the U.S. Capitol

## LIVABLE CITIES OF THE FUTURE A SYMPOSIUM HONORING THE LEGACY OF GEORGE BUGLIARELLO

UTRC co-sponsored the Livable Cities of the Future/A Symposium Honoring The Legacy Of George Bugliarello, held on Friday, October 26, 2012, at Polytechnic Institute of New York University.

The Symposium featured thought leaders in a vital conversation to address the fundamental needs and emerging challenges in large cities, including water, energy, transportation, sustainability, information technology and the environment. Robert Steel, New York City Deputy Mayor for Economic Development, opened the Symposium sessions at which participants heard from a remarkable list of speakers. Private and public service operators, infrastructure agencies, elected officials, the academic community and other stakeholders in the critical urban sectors shared their experiences at this global metropolitan forum through open discussion.

For more information on this symposium, please visit <http://www.poly.edu/bugliarello-symposium/george-bugliarello>



UTRC Staff at the 14th Annual NJDOT Research Showcase

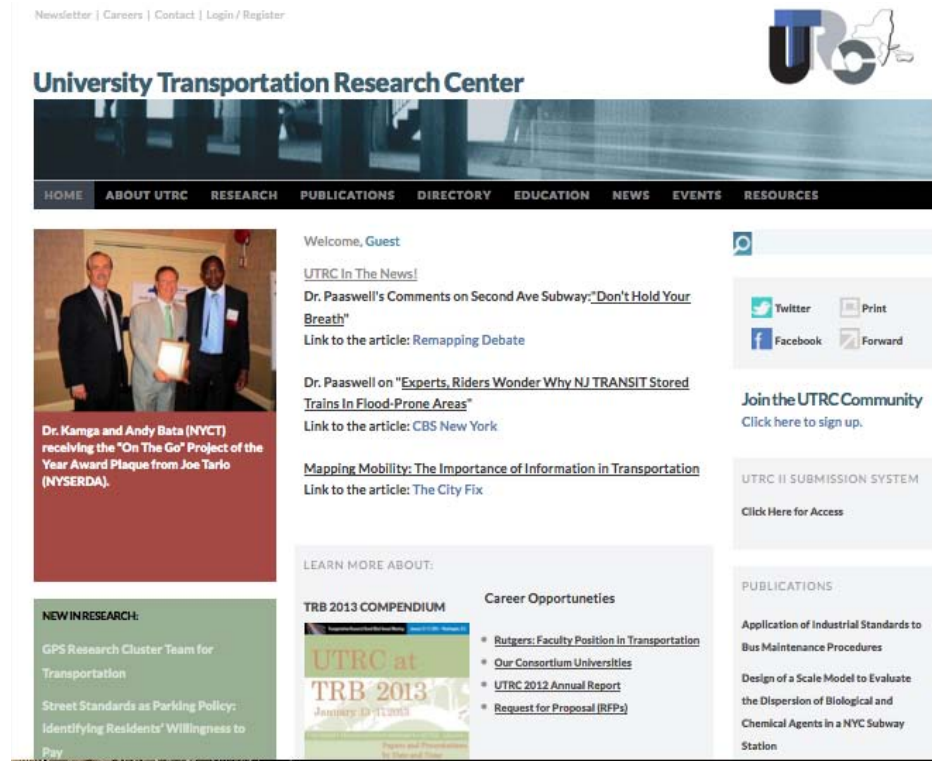
## THE 14TH ANNUAL NJDOT RESEARCH SHOWCASE

The 14th Annual NJDOT Research Showcase was held on October 18th, 2012 at the Conference Center at Mercer. The NJDOT showcase is an opportunity for NJDOT customers to experience the broad scope of ongoing research initiatives, technology transfer activities, and academic research being conducted by university research partners and their associates. Research was highlighted in presentations, poster sessions, and displays. The program was sponsored by the NJDOT Research Bureau with assistance from Rutgers's CAIT-NJ LTAP.



NYSOT Commissioner Joan McDonald (far right), UTRC Chairman John Falcocchio (second right) with some speakers at the symposium

UTRC's Newsletter, Research News, is published quarterly and provides information to transportation professionals about research, education, and outreach activities in Region 2. Research News is available online.



The University Transportation Research Center Region 2 maintains a Website at <http://www.utrc2.org> which contains a comprehensive overview of the center's objectives, purposes and functions for planning and management of regional transportation systems.

The Website serves as an information tool for those transportation agencies that are interested in the Center's research activities and as a bulletin board for students who are interested in pursuing transportation research studies toward advanced degrees.

The Website is a focal point for updated information presented in an accessible format which is visually pleasing and logically navigable.

