

**REGION II  
UNIVERSITY TRANSPORTATION**

**RESEARCH CENTER**



REGION II  
New York, New Jersey,  
Puerto Rico, Virgin Islands

Marshak Hall Room 910  
The City College of NY  
New York, NY 10031

Tel: 212-650-8050  
Fax: 212-650-8374  
Website: [www.utrc2.org](http://www.utrc2.org)

**Program Progress Performance Report by the University Transportation Research Center,  
Region 2  
Submitted to RITA**

Federal Grant # DTRT13-G-UTC32

Project Title: University Transportation Research Center – Region 2

Name of Grant: University Transportation Center

Program Director: Camille Kamga, Ph.D, Director UTRC, Assistant Professor of Civil Engineering, The City College of New York, [ckamga@utrc2.org](mailto:ckamga@utrc2.org), 212-650-8087

Submitting Official: Penny Eickemeyer, [peickemeyer@utrc2.org](mailto:peickemeyer@utrc2.org), 212-650-8074

Submission Date: May 13, 2014

DUNS: 064932676

EIN: 13-1988190

Recipient Identifying Number or Account Number: 49198-26

Project/Grant Period: Start Date: September 30, 2013 End Date: September 30, 2017

Reporting Period Start Date: October 30, 2013

Reporting Period End Date: March 31, 2014

Report Term or Frequency: six months

Signature \_\_\_\_\_

Penny Eickemeyer, Associate Director for Research, UTRC

**CONSORTIUM MEMBERS**

City University of New York, Clarkson University, Columbia University, Cornell University, Hofstra University, Manhattan College, New Jersey Institute of Technology, New York Institute of Technology, New York University, Polytechnic Institute of NYU, Rochester Institute of Technology, Rowan University, Rensselaer Polytechnic Institute, Rutgers University\*, State University of New York, Stevens Institute of Technology, Syracuse University, The College of New Jersey, University of Puerto Rico

*\*Member under SAFETEA-LU Legislation*

This report will cover UTRC's three mission areas: Research, Technology Transfer, and Education for activities that occurred under the Grant# DTRT12-G-UTC02 during this reporting period.

## 1. Accomplishments

### A. Goals and objectives:

a) Research: To support the USDOT Strategic Goals and to advance the state of practice in planning and management of regional transportation systems; the research program consists of both agency-initiated and faculty-initiated studies

b) Education and workforce development: To improve the knowledge base and approach to problem solving of the region's transportation workforce

c) Technology transfer: To increase the awareness and level of information concerning transportation issues facing Region 2 to the education, research and practicing community; disseminate project reports, studies, analysis, and use of tools to the community; and provide unbiased information and testimony to decision-makers concerning regional transportation issues consistent with the UTRC theme.

### B. Accomplishments under these goals:

#### a) Research

As reported in our January 2014 PPPR, a request for pre-proposals was solicited to our faculty in July 2014 to propose projects that would be funded by the FY2013 grant. Pre-Proposals were selected based on rankings developed by external reviewers and PIs were invited to submit full proposals. Selection was made during this period on those projects. In addition, UTRC received notification of its recertification as a UTC for Region 2 under the FY'14 funding. Therefore, UTRC has decided to allocate several of the projects selected through the RFP to the FY2014 grant.

During this reporting period, the following UTRC accounts were opened with FY2014 funding:

- Investigating Temporal Effects on Truck Accident Occurrence and Severity Level in NYC-RPI
- Traffic Prediction using Wireless Cellular Networks- NYIT
- Developing generalized linear mixed models for the strategic highway safety planning process -UPRM
- Characterization and Modeling of Photon Absorption in Asphalt Materials- Columbia, Manhattan
- Hosting, maintenance and support for NYMTC PIMS-NJIT
- Feasibility of Lane Closures Using Probe Data, CCNY, NJIT
- Freight Costs at the Curbside-CCNY, RPI
  
- Evaluating the Role of Private Investment in Life Cycle Management of NYS

Infrastructure Assets- Cornell

- Development of a new connected eco-driving system at signalized intersections with adaptive signal- NYU-POLY
- Analyzing Willingness to Improve the Resiliency of New York City's Transportation System-Cornell
- Understanding Transit Finance: An Analysis of Transit Funding Around the World – Columbia
- Measuring Parking Intrusion in New York City Neighborhoods Using Parking Tickets- NYU
- Impact of Polymer Modification on Mechanical and Viscoelastic Properties of Binders- Rowan

There is nothing more to report at this time for research activity under the FY2014 grant. However, UTRC has been in discussions with NYSDOT to perform a comprehensive research assessment of their research needs. During the upcoming reporting period, UTRC will develop a proposal outlining how this assessment will be conducted and begin interviewing NYSDOT bureau and division heads regarding their thoughts about research needs. Based on the completed assessment, UTRC and NYSDOT will develop a comprehensive list of potential projects and the final projects will be selected by a committee comprised of NYSDOT staff. UTRC will then issue an RFP to our faculty to submit proposals on the selected projects and NYSDOT staff will make the final selections.

b) Education and workforce development - During this period, UTRC accomplished the following:

The application processes for both the AITE and NYMTC/UTRC September 11<sup>th</sup> Programs were initiated during the quarter for the 2014-15 academic year. These will be funded by FY2014 funds.

NYMTC has agreed to fund two students during this time period for the September 11<sup>th</sup> Internship Program. Four potential internship opportunities are available in NY region agencies; the two selected interns will choose their preferred positions.

The purpose of UTRC's Advanced Institute for Transportation Education (AITE) scholarship program is to increase the knowledge and capabilities of transportation professionals by supporting the pursuit of master's degrees in transportation-related fields. The program supports both full-time master's students and professionals working at participating agencies who are looking to increase their expertise through pursuit of a master's degree.

This year, participating universities for the full-time master's students include:

University at Buffalo – the State University of New York  
New Jersey Institute of Technology  
New York University Wagner School of Public Service

New York University Polytechnic School of Engineering  
Rensselaer Polytechnic Institute  
Rowan University  
Stevens Institute of Technology  
University at Albany, Geography and Planning

Participating agencies are:

MTA  
MTA New York City Transit  
NYSDOT  
NYMTC

Participating Universities for the employee program include:

SUNY Buffalo  
City College of New York  
New Jersey Institute of Technology  
NYU Wagner School of Public Service

c) Technology Transfer

The following events were held during this reporting period.

Visiting Scholar Seminar on: Future Investments Planned for the Northeast Corridor, Rebecca Reyes-Alicea, FRA --March 28, 2014

Half-day symposium- *Has the Brooklyn Waterfront Gone Global Again*- March 21 (co-sponsored with the Brooklyn Waterfront Research Center)

Newsletter publications were released during the reporting period- Winter 2014 issue

Brief video clips of interviews with PIs on their completed projects have been initiated as a technology transfer program. Two clips are now available for the following projects (from the 2013 funding):

- Use of Web-Based Rider Input for Transit Management in the New York City Region  
<http://www.utrc2.org/research/projects/use-web-based-rider-input-transit-management>
- Vulnerability of Transportation System and Evacuation Plan for Coastal Flooding in Climate Change  
<http://www.utrc2.org/research/projects/evacuation-plan-for-coastal-flooding>

Annual report- January 1 – December 31, 2013

d) Opportunities for Training and Development

Our seminars and workshops are designed to educate the transportation community on current issues in policy and best practices as well as foster meaningful discussion on these topics. We also provide funding to the September 11<sup>th</sup> Memorial Program to select current students to serve in internship positions in regional and local agencies to enhance their educational experience.

The application process for the September 11<sup>th</sup> Memorial Program has been opened and the selection committee have been appointed. Applications will be received in the next reporting period.

The application process for the AITE Program has also been opened.

C. Dissemination of results:

Nothing to report

D. Plans for next reporting period:

During the next period, subcontracts on the newly-awarded projects should be executed and research will begin. We will also initiate the previously mentioned Research Assessment at NYSDOT, select and initiate CIDNY projects, continue to sponsor VSS seminars, hold a roundtable and a symposium with NYSDOT on Autonomous Vehicles for the purpose of developing a plan for New York State, initiate Year 2 of the VREF CofE program, and continue to oversee research under the 2012 competition (FY 2013) funding.

**2. Products**

Products this period

Nothing to report at this time on this grant.

<b>3. Participants and Collaborating Organizations</b>						
<b>Partner (University)</b>	<b>Agency Sponsor</b>	<b>Location</b> (see attached)	<b>Project(s) (# funded)</b>	<b>Contribution</b>	<b>Other Collaborators</b>	<b>Role</b>
Clarkson	N/A	Potsdam, NY				
Cornell	N/A	Ithaca, NY	Faculty-initiated -2			Research
Columbia	N/A	New York, NY	Faculty-initiated -1	research	Manhattan	research
Columbia	N/A		Faculty-initiated -1	research		
CUNY:						
Queens College	N/A	Flushing, NY				
John Jay	N/A	New York, NY				
CCNY	N/A	New York, NY	Faculty-initiated-1	research	NJIT	research
CCNY	N/A		Faculty-initiated-1	research	RPI	research
CUNY Graduate Center NYC Labor Information Service	N/A	New York, NY				
Manhattan College	N/A	Bronx, NY				
NJIT	N/A	Newark, NJ				
NJIT	NYMTC	Newark NJ	Agency initiated-1	research		
NYIT	N/A	New York, NY	Faculty-initiated-1	research		

3. Participants and Collaborating Organizations						
Partner (University)	Agency Sponsor	Location (see attached)	Project(s) (# funded)	Contribution	Other Collaborators	Role
NYU	N/A	New York, NY	Faculty-initiated-2	research		
RIT	N/A	Rochester, NY				
Rowan University		Glassboro, NJ	Faculty initiated-1	research		
RPI	N/A	Troy, NY	Faculty-initiated-1	research		
RPI						
SUNY:						
Buffalo		Buffalo, NY				
Buffalo	NYSDOT					
Stonybrook	N/A	Stonybrook, NY				
Maritime	N/A	Throggs Neck, NY				
Stevens Institute of Technology	N/A	Hoboken, NJ				
Syracuse		Syracuse, NY				

3. Participants and Collaborating Organizations						
Partner (University)	Agency Sponsor	Location (see attached)	Project(s) (# funded)	Contribution	Other Collaborators	Role
University of Puerto Rico	N/A	Mayaguez PR	Faculty-initiated-1	research		
Agency Partners:						
NYSERDA						
NYMTC		New York, NY				
NYMTC		New York, NY				
NYSDOT		Albany, NY				
NJDOT		Ewing, NJ				
NYCDOT		New York, NY				
Port Authority of NY and NJ		New York, NY				
ITS-New York						



<u>Partner</u>	<u>Street</u>	<u>City, State, Zip</u>
Clarkson	8 Clarkson Avenue	Potsdam, NY 13699
Cornell	Cornell University	Ithaca, NY 14853
CCNY	160 Convent Avenue	New York, NY 10031
John Jay College	524 W. 59th Street	New York, NY 10019
Queens College	65-30 Kissena Blvd	Flushing New York 11367
CUNY Graduate Center	365 5th Avenue	New York, NY 10016
NJIT	323 Martin Luther King Blvd	Newark, NJ 07103
NYU	726 Broadway #350	New York, NY 10003
NYU/POLY	6 Metrotech Center	Brooklyn, NY 11201
RPI	110 8th Street	Troy, NY 12180
RIT	One Lomb Memorial Dr	Rochester, NY 14623
Rowan	201 Mullica Hill Rd	Glassboro, NJ 08028
SUNY Buffalo	12 Capen Hall	Buffalo, NY 14260
Stony Brook	100 Nicolls Rd	Stonybrook, NY 11794
SUNY Maritime	6 Pennyfield Avenue	Throggs Neck, NY 10465
Stevens Institute of Technology	9th Street	Hoboken, NJ 07030
Syracuse University	303 University Pl #335	Syracuse, NY 13244
University of Puerto Rico	Puerto Rico, 65	Mayaguez 00860
Agencies:		
NYSDOT	50 Wolf Road	Albany, New York 12205
NYSERDA	17 Columbia Circle	Albany, New York 12203-6399
NYMTC	199 Water Street	New York, New York 10038
NYCDOT	55 Water Street	New York, New York 10041
NJDOT	1035 Parkway Avenue	Trenton, NJ 08625
NYCDOT	55 Water Street	New York, NY
PANYNJ	225 Park Avenue South	New York, NY 10003
ITS-NY	14 Loveland Court	Cranbury, NJ 08512
NYCT	2 Broadway	New York, NY 10004

<b>Projects by Partner</b>						
<b><u>Partner</u></b>	<b><u>Projects</u></b>					
<b>USC/Volvo</b>						
<b>Clarkson</b>						
<b>Columbia</b>	Characterization and Modeling of Photon Absorption in Asphalt Materials	Understanding Transit Finance: An Analysis of Transit Funding Around the World				
<b>Cornell</b>	Evaluating the Role of Private Investment in Life Cycle Management of NYS Infrastructure Assets	Analyzing Willingness to Improve the Resiliency of New York City's Transportation System				
<b>CCNY</b>	Feasibility of Lane Closures Using Probe Data	Freight Costs at the Curbside				
<b>John Jay College</b>						
<b>Queens College</b>						
<b>Manhattan College</b>	Characterization and Modeling of Photon Absorption in Asphalt Materials					
<b>NJIT</b>	Hosting, maintenance and support for NYMTC PIMS	Feasibility of Lane Closures Using Probe Data				

<b>Projects by Partner</b>						
<b><u>Partner</u></b>	<b><u>Projects</u></b>					
<b>NYIT</b>	Traffic Prediction using Wireless Cellular Networks					
<b>NYU (includes NYU/Poly)</b>	Development of a new connected eco-driving system at signalized intersections with adaptive signal	Measuring Parking Intrusion in New York City Neighborhoods Using Parking Tickets				
<b>RPI</b>	Investigating Temporal Effects on Truck Accident Occurrence and Severity Level in NYC	Freight Costs at the Curbside				
<b>RIT</b>						
<b>Rowen</b>	Impact of Polymer Modification on Mechanical and Viscoelastic Properties of Binders					
<b>SUNY</b>						
<b>Stevens Institute of Technology</b>						
<b>Syracuse University</b>						
<b>University of Puerto Rico</b>	Developing generalized linear mixed models for the strategic highway safety planning process					

<b>Projects by Partner</b>						
<b><u>Partner</u></b>	<b><u>Projects</u></b>					
<b>Agencies:</b>						
<b>NYSDOT</b>						
<b>NYSERDA</b>						
<b>NYCDOT</b>						
<b>NJDOT</b>						
<b>NYMTC</b>	Hosting, maintenance and support for NYMTC PIMS					

#### **4. Impact**

UTRC programs impact the transportation community in several ways. Through seminars, workshops, and conferences, information is disseminated and interdisciplinary discussions are fostered; which enable transportation professionals to gain knowledge and varying perspectives on issues. This, in turn, helps practitioners to implement policies that bring about efficient and effective solutions to meet local, regional, and national transportation needs. UTRC programs also have an impact on preparing the next generation of transportation professionals through internships and classroom- based instruction. Likewise, dissemination of research findings helps to foster collaboration between academic researchers and practitioners, which assists practitioners in implementing innovative solutions that meet their specific needs.

Impacts are expected from our new research projects as work continues.

#### **5. Changes/problems**

Nothing to report

#### **6. Special reporting requirements**

Nothing to report