Aimed at Rhode Island Department of Public Works employees and other transportation practitioners, LTAP training provides useful assistance and training in workforce development, best practices, and safety. Between 20-40 public works employees and transportation practitioners attend each workshop.

A couple of the workshops offered in 2009 included:

**Inspection for Quality Hot Mix Asphalt Pavement**
This one-day workshop for municipal employees covered everything from the latest materials to troubleshooting pavements with the emphasis on the installation process. Cracksealing and chipsealing material and practices was also addressed.

**Winter Show & Ice Operations for New Hires**
This one-day workshop was designed for new municipal and DOT snowplow operator hires. Topics covered included: proper spreading of salt and materials; equipment maintenance; plowing procedures; salt storage; salt environmental concerns; and defensive driving. The new truck driver simulator was also on-site to be used by participants to give them the opportunity to drive a “snowplow” during strikingly realistic situations.

The RI T2 Center, managed by the URITC, provided the following 105 LTAP workshops during 2009.

<table>
<thead>
<tr>
<th>Date</th>
<th>Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/21</td>
<td>Indoor Expo (Burrillville)</td>
</tr>
<tr>
<td>1/29</td>
<td>AMTRAK Training (RIDOT)</td>
</tr>
<tr>
<td>2/5</td>
<td>Confined Space Entry (Pawtucket)</td>
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<tr>
<td>2/12</td>
<td>Flagger Certification (Hopkinton)</td>
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<tr>
<td>2/12</td>
<td>Flagger Certification (South Kingstown)</td>
</tr>
<tr>
<td>2/13</td>
<td>Mower Safety (RIDOT)</td>
</tr>
<tr>
<td>2/23</td>
<td>Introduction to AutoCAD (Warwick)</td>
</tr>
<tr>
<td>2/25</td>
<td>Introduction to Word (Johnston)</td>
</tr>
<tr>
<td>3/5</td>
<td>Storm Water Management at your Public Works Facility (East Greenwich)</td>
</tr>
<tr>
<td>3/5</td>
<td>Storm Water Management at your Public Works Facility (Hope Valley)</td>
</tr>
<tr>
<td>3/9</td>
<td>Introduction to AutoCAD (Warwick)</td>
</tr>
<tr>
<td>3/10</td>
<td>Storm Water Management at your Public Works Facility (North Kingstown)</td>
</tr>
<tr>
<td>3/12</td>
<td>Flagger Certification (Pawtucket - 1st Class)</td>
</tr>
<tr>
<td>3/12</td>
<td>Flagger Certification (Pawtucket - 2nd Class)</td>
</tr>
<tr>
<td>3/16</td>
<td>Introduction to AutoCAD (Warwick)</td>
</tr>
<tr>
<td>3/17</td>
<td>Employee Performance Evaluation (W. Green.)</td>
</tr>
<tr>
<td>3/23</td>
<td>Introduction to AutoCAD (Warwick)</td>
</tr>
<tr>
<td>3/24</td>
<td>Storm Water Management at your Public Works Facility (Lincoln)</td>
</tr>
<tr>
<td>3/26</td>
<td>Storm Water Management at your Public Works Facility (East Providence)</td>
</tr>
<tr>
<td>3/31</td>
<td>Storm Water Management at your Public Works Facility (Portsmouth)</td>
</tr>
<tr>
<td>4/2</td>
<td>Storm Water Management at your Public Works Facility (Gloucester)</td>
</tr>
<tr>
<td>4/7</td>
<td>Storm Water Management at your Public Works Facility (Warwick)</td>
</tr>
<tr>
<td>4/7</td>
<td>All About Chain Saws &amp; Demolition Saws (EG)</td>
</tr>
<tr>
<td>4/8</td>
<td>Storm Water Training at Your Public Works Facility (Richmond)</td>
</tr>
<tr>
<td>4/9</td>
<td>Storm Water Training at Your Public Works Facility (Warwick)</td>
</tr>
<tr>
<td>4/14-15</td>
<td>OSHA 10-Hour Roadway Construction Training (West Greenwich)</td>
</tr>
<tr>
<td>4/14</td>
<td>Storm Water Training at Your Public Works Facility (Warwick)</td>
</tr>
<tr>
<td>4/15</td>
<td>Flagger Certification (Pascoag)</td>
</tr>
<tr>
<td>4/20</td>
<td>Outlook Computer Class (RIDOT)</td>
</tr>
<tr>
<td>4/21</td>
<td>Hands-On Two Cycle - Small Engine Repair &amp; Maintenance (RIDOT)</td>
</tr>
<tr>
<td>4/21</td>
<td>Outlook Computer Class (RIDOT)</td>
</tr>
<tr>
<td>4/22</td>
<td>Elgin Pelican Sweeper (West Greenwich)</td>
</tr>
</tbody>
</table>

A chainsaw company representative put on a demonstration at the outdoor equipment show on June 24.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>4/23</td>
<td>Elgin Pelican Sweeper (West Greenwich)</td>
</tr>
<tr>
<td>4/22</td>
<td>Outlook Computer Class (RIDOT)</td>
</tr>
<tr>
<td>4/23</td>
<td>Outlook Computer Class (RIDOT)</td>
</tr>
<tr>
<td>4/24</td>
<td>Flagger Certification (Bristol - A.M.)</td>
</tr>
<tr>
<td>4/24</td>
<td>Flagger Certification (Bristol - P.M.)</td>
</tr>
<tr>
<td>4/27</td>
<td>Outlook Computer Class (Coventry)</td>
</tr>
<tr>
<td>4/28</td>
<td>Introduction to Word (Coventry)</td>
</tr>
<tr>
<td>4/29</td>
<td>Introduction to Word (Coventry)</td>
</tr>
<tr>
<td>4/29</td>
<td>Storm Water Training at your Public Works Facility (Glocester)</td>
</tr>
<tr>
<td>4/30</td>
<td>Introduction to Excel (Coventry)</td>
</tr>
<tr>
<td>4/30</td>
<td>Infrastructure Asset Management (W. Green.)</td>
</tr>
<tr>
<td>5/1</td>
<td>Introduction to Excel (Coventry)</td>
</tr>
<tr>
<td>5/1</td>
<td>AMTRAK Training (RIDOT)</td>
</tr>
<tr>
<td>5/1, 5/4</td>
<td>Chainsaw Skills and Safety (Richmond)</td>
</tr>
<tr>
<td>5/5</td>
<td>Prep. for the Hoisting Engineers Exam (Pascoag)</td>
</tr>
<tr>
<td>5/5-6</td>
<td>Chain Saw Skills and Safety Facility (Richmond)</td>
</tr>
<tr>
<td>5/8</td>
<td>Mower &amp; Work Zone Safety (Providence)</td>
</tr>
<tr>
<td>5/8</td>
<td>Flagger Certification (Jamestown)</td>
</tr>
<tr>
<td>5/20</td>
<td>Preparing to Take the Hoisting Engineers Exam (SK)</td>
</tr>
<tr>
<td>5/21</td>
<td>Flagger Certification (Smithfield)</td>
</tr>
<tr>
<td>May</td>
<td>Traffic Safety Technician Training (RIDOT)</td>
</tr>
<tr>
<td>6/2-4</td>
<td>Traffic Safety Technician Training (RIDOT)</td>
</tr>
<tr>
<td>6/12</td>
<td>Flagger Certification (Glocester)</td>
</tr>
<tr>
<td>6/16</td>
<td>Flagger Certification (South Kingstown)</td>
</tr>
<tr>
<td>6/24</td>
<td>Equipment Show and Demo (Richmond)</td>
</tr>
<tr>
<td>7/9</td>
<td>Bucket Truck Safety Operations (RIDOT)</td>
</tr>
<tr>
<td>7/16</td>
<td>Bucket Truck Safety Operations (RIDOT)</td>
</tr>
<tr>
<td>7/27</td>
<td>Flagger Certification (Providence)</td>
</tr>
<tr>
<td>8/20</td>
<td>Flagger Certification (Providence)</td>
</tr>
<tr>
<td>8/26</td>
<td>Flagger Certification (Charlestown)</td>
</tr>
<tr>
<td>10/6</td>
<td>Coffee Break - Truck Driver Simulator (RIDOT)</td>
</tr>
<tr>
<td>10/8</td>
<td>Low Maintenance Lawn Seed Demo (WG)</td>
</tr>
<tr>
<td>10/8</td>
<td>Preparing to Take the Hoisting License Exam (Barrington)</td>
</tr>
<tr>
<td>10/14</td>
<td>All About Chain Saws (Pawtucket)</td>
</tr>
<tr>
<td>10/15</td>
<td>Prep. for the Hoisting License Exam (Foster)</td>
</tr>
<tr>
<td>10/19</td>
<td>Flagger Certification (AM Session) (Narragansett Bay Commission)</td>
</tr>
<tr>
<td>10/19</td>
<td>Flagger Certification (PM Session) (Narragansett Bay Commission)</td>
</tr>
<tr>
<td>10/20</td>
<td>Preparing to Take the Hoisting License Exam (Pawtucket)</td>
</tr>
<tr>
<td>10/21</td>
<td>All About Chain Saws (Cranston)</td>
</tr>
<tr>
<td>10/22</td>
<td>Dealing with Difficult People (West Greenwich)</td>
</tr>
<tr>
<td>11/3</td>
<td>Introduction to Powerpoint (Coventry)</td>
</tr>
<tr>
<td>11/4</td>
<td>Intermediate Excel (Coventry)</td>
</tr>
<tr>
<td>11/5</td>
<td>Winter Snow &amp; Ice Ops for New Hires (RIDOT)</td>
</tr>
<tr>
<td>11/5</td>
<td>Intermediate Outlook (Coventry)</td>
</tr>
<tr>
<td>11/6</td>
<td>Intermediate Word (Coventry)</td>
</tr>
<tr>
<td>11/12</td>
<td>Introduction to Computers (RI Indian Council)</td>
</tr>
<tr>
<td>11/17</td>
<td>Preparing to Take the Hoisting Exam (EG)</td>
</tr>
<tr>
<td>11/17</td>
<td>Bucket Truck Safety Operations (S. Kingstown)</td>
</tr>
<tr>
<td>11/18</td>
<td>All About Chainsaws and Cut Off Saws (Coventry)</td>
</tr>
<tr>
<td>11/19</td>
<td>All About Chainsaws and Cut Off Saws (SK)</td>
</tr>
<tr>
<td>11/20</td>
<td>Hands-On Work Zone Safety (East Greenwich)</td>
</tr>
<tr>
<td>11/21</td>
<td>Controlling Construction Site Runoff (URI)</td>
</tr>
<tr>
<td>11/24</td>
<td>Bucket Truck Safety Operations (RIDOT)</td>
</tr>
<tr>
<td>11/27</td>
<td>Controlling Construction Site Runoff (URI)</td>
</tr>
<tr>
<td>12/1</td>
<td>Excel I (RIDOT)</td>
</tr>
<tr>
<td>12/1</td>
<td>Roundtable Discussion of “Winter Ops” (WG)</td>
</tr>
<tr>
<td>12/2</td>
<td>Confined Space Training (East Providence)</td>
</tr>
<tr>
<td>12/2</td>
<td>Excel II (RIDOT)</td>
</tr>
<tr>
<td>12/3</td>
<td>Excel II (RIDOT)</td>
</tr>
<tr>
<td>12/3</td>
<td>All About Chainsaws and Demo Saws (Cov.)</td>
</tr>
<tr>
<td>12/4</td>
<td>Plan Reading for Roadway Construction (Cov.)</td>
</tr>
<tr>
<td>12/8</td>
<td>Inspection for Quality Hot Mix Asphalt Pavement</td>
</tr>
<tr>
<td>12/9</td>
<td>Winter Snow &amp; Ice Operations (RIDOT)</td>
</tr>
<tr>
<td>12/8 &amp; 12</td>
<td>Work Zone Safety &amp; Mobility Training - Supervisor’s Level (RIDOT)</td>
</tr>
<tr>
<td>12/9 &amp; 11</td>
<td>Work Zone Safety &amp; Mobility Training - Supervisor’s Level (RIDOT)</td>
</tr>
<tr>
<td>12/10</td>
<td>Def. Driving with the Driver Simulator (RIDOT)</td>
</tr>
<tr>
<td>12/14, 15 &amp; 17</td>
<td>Basic Plan Reading for the Roadway Industry, 8 hr. course (Providence)</td>
</tr>
<tr>
<td>12/15 &amp; 17</td>
<td>Work Zone Safety &amp; Mobility Training - Supervisor’s Level (RIDOT)</td>
</tr>
</tbody>
</table>
PROJECT ACHIEVEMENTS

February 2009

July 2009
For FY2009 (and those not previously reported)

Christopher Baxter

Field Study of Composite Piles in the Marine Environment

Publications

Liquefaction Potential of Inorganic and Organic Silts

Publications


Arijit Bose

Directional Synthesis of Lead Selenide-Tatania Core-Shell Nanowire Heterostructures for High-Efficiency Low-Cost Solar Cells

Publications


Invited Presentations


Michael L. Greenfield

Simulation, Modeling and Interpretation of Asphalt Rheology

Publications

Publications, Presentations & Success Stories


Presentations
Michael L. Greenfield “Packing and Dynamics in Molecular-Scale Model Asphalts,” University of Massachusetts-Amherst, Dept of Chemical Engineering Seminar Series, March 31, 2009.


Awards
2008 Researcher of the Year, from the URI Transportation Center

James Kroes

Davisville Port Feasibility Study

Presentation
“Increasing Utilization at the Port of Davisville” at the national Decision Sciences Institute Annual Meeting in New Orleans, La, November 2009.

*The research report was included in the Quonset Development Corporation’s TIGER grant application, which requested $42 million in federal stimulus funding.

Davisville Port Feasibility Study: Part II

Publications
Two working papers are being written based on the research funded by this grant.

Presentation
“Demand Analysis at the Port of Davisville” will be presented at the Northeast Decision Sciences 2010 Annual Conference in Washington, DC, March 2010.

Frederick Meyerson

Commuter Behavior, Transportation, Energy Use, and Greenhouse Gas Emissions at the University of Rhode Island (Summer 2006)

Presentations


Publications
The results of a series of commuter behavior surveys conducted by Dr. Frederick A. B. Meyerson and Rachel Sholly with URI Transportation Center funds will be highlighted in the April 2010 issue of the National Association of College and University Business Officers (NACUBO) Business Officer magazine. Entitled “Shifting Gears” and written by Karla Hignite, the article presents examples of how universities are promoting and incentivizing alternative transportation among commuters. Meyerson and Sholly’s study and the transportation policies it has informed are featured in the article as models for other schools.

Norbert Mundorf

Improving Safe Transportation and Alcohol Awareness Messages

Publication

Creating Sustainable Transportation Awareness in Communication Courses

Publication
**Award**
Video Contest (November, 2008). Energy Expo University of Rhode Island (Third Place for URITC sponsored Student Project).

**New Courses Designed**
Environmental Dimensions of Communication (COM315/SUS315): Redesigned and modified to emphasize Sustainable Transportation

Research Methods in Communication (COM381) and Special Problems (COM491/2): Redesigned and modified to focus on Transportation related research projects: DUI, Sustainability, Seatbelts

Sustainability and Behavior (GCH104, preliminary title). Grand Challenges Course. Interdisciplinary Freshmen course which will emphasize Sustainability and Sustainable Transportation. Will be taught in Fall 2010.

Telecommunications Theories and Audience Behaviors (COM440): Modified to include Sustainable Transportation Component.

**Outreach Projects**
Projects were done with several local high schools to encourage seatbelt use among high school students. Projects involved graduate students Daniel Fishtein, Le Yang, Kai Zhang

**M.A. Thesis**
Fishtein, D (completion expected 2009, April). Developing an Intervention: Promoting Change in Environmental Self-Efficacy

**M.A. Thesis**
Albrecht, C. (completion expected 2010, Fall). Teenage Distracted Driving Attitudes and Behavior: A New Focus For Public Safety.

**Local Media**
Innovative Approaches to Transportation Research. Interview with Providence Business News (March 8, 2010)

**Jyh-Hone Wang**

**Studying the Vehicle Headway Issue and its impact on the Slow-Down Effect**

**Presentation**

**Publication**


**Increasing Seatbelt Usage Rate Among High School Students**

**Conference Paper**
Research Projects

February 2009

December 2009
URITC & RIDOT Join Forces on Research Projects

As a result of many successful collaborations on research and educational projects, the URITC and RIDOT established a joint research program to address a range of issues that impact RIDOT programs and coincide with the theme of the URITC. The goal is to leverage research dollars and to encourage the development of proposals that satisfy RIDOT’s research needs.

This program will not eliminate RIDOT’s funding of studies that address needs which arise during the year. As has been the case in the past, RIDOT will continue to solicit assistance from URI faculty for specific problems based upon the faculty’s expertise.

On Dec. 4, the URITC and RIDOT held a forum to address the direction of the joint research program and give RIDOT personnel and URI professors an opportunity to exchange ideas.

“...This collaboration will re-energize and elevate our research program,” said Colin Franco, RIDOT Associate Chief Engineer – Research and Technology Division. “This joint program will help us create more synergies with the research faculty at URI.”

New Projects in 2009

**Phase I: Pervious Pavement Research Facility**
Dr. Vinka Craver, Assistant Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2009 – 002595

**Transportation for Sustainability: Phase II**
Dr. Manbir Sodhi, Professor
URI Department of Industrial and Systems Engineering
Year Initiated: 2009 – 002021

**Feasibility Study to Increase Utilization at the Port of Davisville (Quonset, RI)**
Dr. James Kroes, Assistant Professor
URI College of Business Administration
Year Initiated: 2009 – 002035

**Feasibility Study to Utilize the Port of Davisville (Quonset, RI) as a Port of Entry**
Dr. James Kroes, Assistant Professor
URI College of Business Administration
Year Initiated: 2009 – 002315

Ongoing Projects as of Dec. 31, 2009

**Simulation, Modeling and Interpretation of Asphalt Rheology**
Dr. Michael L. Greenfield, Professor
URI Department of Chemical Engineering
Year Initiated: 2008 – 001850

**Settlement of Adjacent Ground from Pile Driving in Silts**
Dr. Christopher D.P. Baxter, Associate Professor
URI Department of Civil and Env. Engineering and Department of Ocean Engineering
Year Initiated: 2008 – 001851

**Transportation for Sustainability: Phase I**
Dr. Manbir Sodhi, Professor
URI Department of Industrial and Systems Engineering
Year Initiated: 2008 – 001869
Research Projects

Directional Synthesis of Lead Selenide-Tatania Core-Shell Nanowire Heterostructures for High-Efficiency Low-Cost Solar Cells
Dr. Arijit Bose, Professor
URI Department of Chemical Engineering
Year Initiated: 2008 – 001891

Increasing Seatbelt Usage Rate Among High School Students
Dr. Norbert Mundorf, Professor
URI Department of Communication Studies
Year Initiated: 2008 – 001897

Consumer Behavior, Transportation, Energy Use and Greenhouse Gas Emissions at URI
Dr. Frederick Meyerson, Assistant Professor
URI Dept. of Environmental Science & Management
Year Initiated: 2008 – 001943

Modeling Molecular LevelActions of Asphalt Modifiers
Dr. Michael Greenfield, Associate Professor
URI Department of Chemical Engineering
Year Initiated: 2005 – 001025

Global Transportation Network and Supply Chain Management: An Integrative Approach
Dr. Mary Krome Hamilton, Assistant Professor
URI College of Business Administration
Year Initiated: 2005 – 001030

Multi-Modal Hurricane Evacuation Plan
Dr. Natacha Thomas, Assistant Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2005 – 001051

Completed Projects

Feasibility Study to Increase Utilization at the Port of Davisville (Quonset, RI)
Dr. James Kroes, Assistant Professor
URI College of Business Administration
Year Initiated: 2009 – 002035

Researching Sustainable Communities: Design, Layout and Transportation Systems
Dr. William A. Green, Professor
URI Department of Community Planning & Landscape Architecture
Year Initiated: 2008 – 001845

Studying the Vehicle Headway Issue and Its Impact on the Slow-Down Effect
Dr. Jyh-Hone Wang, Associate Professor
URI Dept. of Industrial and Manufacturing Engineering
Year Initiated: 2008 – 001852

Creating Sustainable Transportation Awareness in Communication Courses
Dr. Norbert Mundorf, Professor
URI Department of Communication Studies
Year Initiated: 2008 – 001857

Study of an Overload Truck Screening System for a Sustainable Highway Bridge Network
Dr. Mayrai Gindy, Assistant Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2008 – 001900

Enhancing the Preparedness and Response of the Transportation System in Case of Natural or Human-Caused Disasters
Dr. Jyh-Hone Wang, Associate Professor
URI Dept. of Industrial and Manufacturing Engineering
Year Initiated: 2006 – 001031

Synthesis of Nanocatalyst-Support Composites for Transportation Applications
Dr. Arijit Bose, Professor
URI Department of Chemical Engineering
Year Initiated: 2005 – 001024

Assisting Elder Driver’s Comprehension of Dynamic Message Sign Messages
Dr. Jyh-Hone Wang, Associate Professor
URI Dept. of Industrial and Manufacturing Engineering
Year Initiated: 2005 – 001026
Research Projects

New Anti-Fouling Coatings Based on Conductive Polymers
Dr. Richard Brown, Professor
URI Department of Chemical Engineering
Year Initiated: 2006 – 001032

Understanding the Activity and Travel Patterns of Teenagers Living in Providence, R.I.
Dr. Talia McCray, Assistant Professor
URI College of Business Administration
Year Initiated: 2006 – 001033

Improving Safe Transportation and Alcohol Awareness Messages
Dr. Norbert Mundorf, Professor
URI Department of Communication Studies
Year Initiated: 2006 – 001034

Transportation System Research Program Development
Dr. Christopher Hunter, Assistant Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2006 – 001385

A Strategic Model for Optimal Scaling of International Container Ports
Dr. Christopher Anderson, Associate Professor
URI Graduate School of Oceanography
Year Initiated: 2005 – 001028

Integrity Assessment of Composite and Timber Piles in the Marine Environment Using Nondestructive Testing
Dr. Mayrai Gindy, Assistant Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2005 – 001027

Co-Utilization of Narragansett Bay by Maritime Commerce, Tourism, Recreational and Commercial Industries
Dr. Candace Oviatt, Professor
URI Graduate School of Oceanography
Year Initiated: 2005 – 001029

Commuter Behavior, Transportation, Energy Use and Greenhouse Gas Emissions at the University of Rhode Island (Summer 2006)
Dr. Frederick Meyerson, Assistant Professor
URI Department of Natural Resources Science
Year Initiated: 2005 – 001162

Nanostructured Materials for Advanced Transportation Applications
Dr. Arijit Bose, Professor
URI Department of Chemical Engineering
Year Initiated: 2004 – 000464

The Impact of Truck Driver Hours-of-Service Regulations on Retail Warehouse Operations
Dr. Valerie Maier-Speredelozzi, Assistant Professor
URI Dept. of Industrial and Manufacturing Engineering
Year Initiated: 2004 – 000466

Acoustic Detection and Monitoring for Transportation Infrastructure Security
Dr. James Miller, Professor
URI Department of Ocean Engineering
Year Initiated: 2004 – 000471

Employing Graphics to aid Message Display on Dynamic Message Signs
Dr. Jyh-Hone Wang, Associate Professor
URI Dept. of Industrial and Manufacturing Engineering
Year Initiated: 2004 – 000472

Testing Models of Asphalt System Modification Using Molecular Simulation
Dr. Michael Greenfield, Associate Professor
URI Department of Chemical Engineering
Year Initiated: 2004 – 000506

Comparative Performance of Explosion Shielding Materials Used in Transportation
Dr. Carl-Ernst Rousseau, Assistant Professor
URI Department of Mechanical Engineering
Year Initiated: 2004 – 000507
Developing Intermodal Transportation Station Projects: A Public-Private Partnership Approach
Dr. Farhad Atash, Professor
URI Department of Community Planning & Landscape Architecture
Year Initiated: 2004 – 000557

Evaluation of Nonviolence Training for Offenders
Dr. Charles Collyer, Professor
URI Department of Psychology
Year Initiated: 2004 – 000562

Highway Flares and Runoff: a Potential Source of Perchlorate to Surface Water in Rhode Island
Dr. Anne Veeger, Associate Professor
URI Department of Geosciences
Year Initiated: 2004 – 000563

Liquefaction Potential of Inorganic and Organic Silts
Dr. Christopher Baxter, Assistant Professor
URI Departments of Ocean Engineering & Civil and Environmental Engineering
Year Initiated: 2003 – 000060

Web Based Relational Database Portal for Subsurface Geotechnical Data
Dr. Daniel Murray, Professor
URI Department of Geosciences
Year Initiated: 2003 – 000158

Designing Model Asphalt Systems Using Molecular Simulation
Dr. Michael Greenfield, Associate Professor
URI Department of Chemical Engineering
Year Initiated: 2003 – 000216

Promoting Bike-Riding on the Kingston Campus of URI: Overcoming Barriers to Change
Dr. Lorraine Keeney, Research Associate
URI Department of Nutrition and Food Sciences
Year Initiated: 2003 – 536170

Harnessing the Power of Relational Databases for Management of Geotechnical and Geologic Data
Dr. Daniel Murray, Professor
URI Department of Geosciences
Year Initiated: 2002 – 536176

Determining the Effectiveness of New Technology Data Collection Devices for Real-Time Transportation System Management
Dr. Chris Hunter, Assistant Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2002 – 536177

Development of Thermochromic Paints, Plastics and Rubbers for Rapid Visual Assessment of Temperature
Dr. Brett Lucht, Associate Professor
URI Department of Chemistry
Year Initiated: 2002 – 536183

Replacement of Chromate in Paints and Corrosion Protection Systems
Dr. Mercedes Rivero-Hudec, Associate Professor
URI Department of Chemical Engineering
Year Initiated: 2002 – 000514

Development of Thermochromic Paints, Plastics, and Rubbers for Rapid Visual Assessment of Temperature
Dr. Brett Lucht, Associate Professor
URI Department of Chemistry
Year Initiated: 2001 – 536152

Contamination of Urban Lakes by Storm Runoff from Highway and Railway Drainage Systems
Dr. John King, Professor
URI School of Oceanography
Year Initiated: 2001 – 536155

Development of an Advanced Pavement Deicing System
Dr. David Taggart, Professor
URI Department of Mechanical Engineering
Year Initiated: 2001 – 536156

Investigation of Potential for Intermodalizing Paratransit in Rhode Island
Dr. Christopher Hunter, Assistant Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2001 – 536157
Rethinking the Region  
Dr. Maureen Moakley, Professor  
URI Department of Political Science  
Year Initiated: 2001 – 536168

Intermodal Transport of Petroleum Products- Smart Terminals  
Dr. Winston Knight, Professor  
URI Dept. of Industrial and Manufacturing Engineering  
Year Initiated: 2000 – 536133

Safety Belt Usage Rates at High Schools and Colleges in Rhode Island  
Daniel Berman  
Executive in Residence & FHWA RI Division  
Dr. Jerome Schaffran, Professor  
URI Human Development and Family Studies  
Year Initiated: 2004 – 000318

Quonset Point (QP) Multi-Modal, Mixed-Use Ferry Terminal Study  
Dr. Richard Burroughs, Professor  
URI Department of Marine Affairs  
Year Initiated: 2004 – 000470

Challenges and Prospects of the Proposed Intermodal Transportation Hub at T.F. Green Airport in Warwick, R.I.  
Dr. Farhad Atash, Professor  
URI Department of Community Planning & Landscape Architecture  
Year Initiated: 2004 – 000564

Narragansett Bay High Speed Ferry Network - Phase 2: Engineering, Marketing and Economic Development  
Dr. Angelo Simeoni, Professor  
URI Department of Community Planning & Landscape Architecture  
Year Initiated: 2004 – 000592

Enhancing Driving Safety through Proper Message Design on Variable Message Signs  
Dr. Jyh-Hone Wang, Associate Professor  
URI Dept. of Industrial and Manufacturing Engineering  
Year Initiated: 2003 – 000052

Experimental Evaluation of Novel Composites for Use in Transport of Explosive Materials  
Dr. Carl-Ernst Rousseau, Assistant Professor  
URI Department of Mechanical Engineering  
Year Initiated: 2003 – 000057

Calibration of Scour Models Using Advanced Sonar Technology for Bridge Safety  
Dr. James Miller, Professor  
URI Department of Ocean Engineering  
Year Initiated: 2003 – 000059

Porous Pavement and Water Quality: Investigation of a Newly Constructed Parking Lot and Its Potential Impact on Subsurface Water  
Dr. Thomas Boving, Associate Professor  
URI Department of Geosciences  
Year Initiated: 2003 – 000163

Narragansett Bay High Speed Ferry Network Phase 1 - Site Selections and Site Designs  
Dr. Angelo Simeoni, Professor  
URI Department of Community Planning & Landscape Architecture  
Year Initiated: 2003 – 000188

Stretching Ability of Chip Seal Membranes (Project Cancelled Due to the Death of PI)  
Milton Huston, Adjunct Associate Professor  
URI Department of Civil and Environmental Engineering  
Year Initiated: 2002 – 536175

Developing and Applying a Transportation Model for Aquidneck Island  
Dr. Farhad Atash, Professor  
URI Department of Community Planning & Landscape Architecture  
Year Initiated: 2002 – 536178

Integrated Transportation Pricing Strategy for Newport  
Dr. Timothy Tyrrell, Professor  
URI Dept. of Environmental & Natural Resource Economics  
Year Initiated: 2002 – 536179
Research Projects

Development of a Course on Bridge Management
Dr. George Tsiatas, Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2002 – 536180

Wood Filters as an Innovative Treatment Method for Roadway Runoff Pollutants
Dr. Thomas Boving, Associate Professor
URI Department of Geosciences
Year Initiated: 2002 – 536181

RIDOT 2002 Bicycle Transportation User Survey; Dev. Intermodal Connections for the 21st Century
Dr. R. Choudary Hanumara, Professor
URI Department of Computer Science and Statistics
Year Initiated: 2002 – 536182

Dredging in a Changing Scientific and Regulatory Environment - Year 2
Dr. Richard Burroughs, Professor
URI Department of Marine Affairs
Year Initiated: 2002 – 536184

Application of a Multimodal Demand Simulation Model to Assess Container Transportation Policy Issues in the Northeast
Dr. Thomas Grigalunas, Professor
URI Dept. of Environmental & Natural Resource Economics
Year Initiated: 2002 – 536185

Mechanical Behavior of Recycled Asphalt Material Under Dynamic Loading Conditions
Dr. Martin Sadd, Professor
URI Department of Mechanical Engineering
Year Initiated: 2002 – 536186

Dredging in a Changing Scientific and Regulatory Environment
Dr. Richard Burroughs, Professor
URI Department of Marine Affairs
Year Initiated: 2001 – 536151

Field Study of Composite Piles in the Marine Environment
Dr. Christopher Baxter, Assistant Professor
URI Dept. of Ocean & Civil and Environmental Engineering
Year Initiated: 2001 – 536153

Development of a Customer Satisfaction and Service Quality Measurement Method and Tool for the Rhode Island Public Transit Authority
Dr. Albert Della Bitta, Professor
URI College of Business Administration
Year Initiated: 2001 – 536154

Replacement of Chromates in Paints and Corrosion Protection Systems
Dr. Mercedes Rivero-Hudec, Associate Professor
URI Department of Chemical Engineering
Year Initiated: 2001 – 536158

Intelligent Traffic Anomaly Diagnosis Through the Integration of Diverse Information Sources
Dr. Joan Peckham, Professor
URI Department of Computer Science
Year Initiated: 2001 – 536159

Processing of Cenosphere-Cement/Asphalt Composite Materials and Evaluation of their Mechanical and Acoustic Properties
Dr. Arijit Bose, Professor
URI Department of Chemical Engineering
Year Initiated: 2001 – 536160

Multimodal Vehicle Display Design and Analysis
Dr. Manbir Sodhi, Professor
URI Department of Industrial Engineering
Year Initiated: 2001 – 536161

Creating Safe Transportation Options for College Students
Dr. Norbert Mundorf, Professor
URI Department of Communication Studies
Year Initiated: 2001 – 536162

Comprehensive Framework for Sustainable Container Ports
Dev. of U.S. East Coast in the 21st Century (Year 3)
Dr. Thomas Grigalunas, Professor
URI Dept. of Environmental & Natural Resource Economics
Year Initiated: 2001 – 536163
Effect of Microstructure on the Static and Dynamic Behavior of Recycled Asphalt Material  
Dr. Martin Sadd, Professor  
URI Department of Mechanical Engineering  
Year Initiated: 2001 – 536164

Exploring Ways of Influencing Transport Behaviors by Using Telecommunications Technologies  
Dr. Nikhilesh Dholakia, Professor  
URI College of Business Administration  
Year Initiated: 2000 – 536131

Chemical Retention Capacity of a Newly Constructed Roadway Runoff Detention Pond  
Dr. Thomas Boving, Assistant Professor  
URI Department of Geosciences  
Year Initiated: 2000 – 536132

High Accuracy GPS Base Station and Web Delivery System  
Dr. Peter August, Professor  
URI Department of Natural Resources Science  
Year Initiated: 2000 – 536134

Replacement of Chromates in Paints and Corrosion Protection Systems  
Dr. Mercedes Rivero-Hudec, Associate Professor  
URI Department of Chemical Engineering  
Year Initiated: 2000 – 536135

Fiber Reinforcement of Concrete  
Dr. Richard Brown, Professor  
URI Department of Chemical Engineering  
Year Initiated: 2000 – 536136

A Web-Based Core Library for Rhode Island  
Dr. Daniel Murray, Professor  
URI Department of Geosciences  
Year Initiated: 2000 – 536137

Effect of Microstructure on the Static and Dynamic Behavior of Recycled Asphalt Materials  
Dr. Martin Sadd, Professor  
URI Department of Mechanical Engineering  
Year Initiated: 2000 – 536138

TRANSMAP: An Integrated, Real-Time Environmental Monitoring and Forecasting System for Highways and Waterways in RI  
Dr. Malcolm Spaulding, Professor  
URI Department of Ocean Engineering  
Year Initiated: 2000 – 536139

Comprehensive Framework for Sustainable Container Ports  
Development of US East Coast in the 21st Century  
Dr. Thomas Grigalunas, Professor  
URI Dept. of Environmental & Natural Resource Economics  
Year Initiated: 2000 – 536140

Implementation of a Highway Monitoring Program Utilizing Intelligent Transportation Systems (ITS)  
Milton Huston, Adjunct Associate Professor  
URI Department of Civil and Environmental Engineering  
Year Initiated: 2000 – 536141

Moving Smart in Rhode Island  
Dr. Joan Peckham, Professor  
URI Department of Computer Science and Statistics  
Year Initiated: 2000 – 536142

Inorganic and Organic Characterization of Dredged Sediments from the Proposed Quonset Point Channel in Narragansett Bay  
Dr. Raymond Wright, Professor  
URI Department of Civil and Environmental Engineering  
Year Initiated: 2000 – 536143

Performance Improvement & Measurement of Open-Graded Asphalt Mixes  
Dr. Mohammad Faghri, Professor  
URI Department of Mechanical Engineering  
Year Initiated: 2000 – 536144

Magnet and Induced Impacts of Quonset Container Port  
Dr. Edward Mazze, Dean  
URI College of Business Administration  
Year Initiated: 2000 – 536145
Red Light Running in Rhode Island
Dr. Chris Hunter, Assistant Professor
URI Department of Civil and Environmental Engineering
Year Initiated: 2000 – 536146

TRANSMAp: An Integrated, Real-Time Environmental Monitoring and Forecasting System for Highways and Waterways in RI
Dr. Malcolm Spaulding, Professor
URI Department of Ocean Engineering
Year Initiated: 1999 – 536100

Fiber Reinforcement of Concrete
Dr. Richard Brown, Professor
URI Department of Chemical Engineering
Year Initiated: 1999 – 536101

Geologic Transportation Maps for the 21st Century
Dr. O. Don Hermes, Professor
URI Department of Geosciences
Year Initiated: 1999 – 536102

Multi Modal Vehicle Display Design and Analysis
Dr. Manbir Sodh, Professor
URI Dept. of Industrial & Manufacturing Engineering
Year Initiated: 1999 – 536103

Beneficial Uses of Dredge Material from the QPD Intermodal Port Terminal
Dr. Armand Silva, Professor
URI Department of Ocean Engineering
Year Initiated: 1999 – 536104

The Design and Development of Information and Computer Systems for the URITC
Dr. Joan Peckham, Professor
URI Department of Computer Science and Statistics
Year Initiated: 1999 – 536105

Comprehensive Framework for Sustainable Container Ports Development of US East Coast in the 21st Century
Dr. Thomas Grigalunas, Professor
URI Dept. of Environmental & Natural Resource Economics
Year Initiated: 1999 – 536106

Development of an Advanced Bridge, Highway, and Runway Deicing System
Dr. David Taggart, Professor
URI Department of Mechanical Engineering
Year Initiated: 1999 – 536107

Effect of Microstructure on the Static and Dynamic Behavior of Recycled Asphalt Material
Dr. Martin Sadd, Professor
URI Department of Mechanical Engineering
Year Initiated: 1999 – 536108

Modeling for Real-Time Traffic Control in the Rhode Island Intelligent Road
Dr. William Palm, Professor
URI Department of Mechanical Engineering
Year Initiated: 1999 – 536109

Using Cenospheres to Develop New Asphalt and Cement-Based Concrete Materials
Dr. Arun Shukla, Professor
URI Department of Mechanical Engineering
Year Initiated: 1999 – 536110

Interactions of Transportation and Telecommunications Behaviors in Relation to RIIR: Modeling the User Perspective
Dr. Nikhilesh Dholakia, Professor
URI College of Business Administration
Year Initiated: 1999 – 536111

Data Analysis and Detection Methods for Online Health Monitoring of Bridge Structures
Dr. Sau-Lon Hu, Professor
URI Department of Ocean Engineering
Year Initiated: 1999 – 536112

Dr. David Shao, Professor
URI Dept. of Industrial and Manufacturing Engineering
Year Initiated: 1999 – 536113

Smart Speed Bumps
Dr. William Ohley, Professor
URI Department of Electrical Engineering
Year Initiated: 1999 – 536114
Source of Funds as of 12/31/09

This chart represents the composition of funds committed for Grant Year 2008.

- State Grant: 59%
- Federal Grant: 19%
- University Match: 13%
- Third Party Match (industry and public sector partners): 9%

Use of Funds as of 12/31/09

This chart illustrates the composition of allocations against the total source of funds for Grant Year 2008.

- Research: 25%
- Outreach: 26%
- Technical Assistance/Training: 21%
- Administration: 8%
- Education: 20%