Center Theme

Our center supports innovations in developing multimodal solutions for mitigating congestion. This theme was selected because congestion mitigation is one of the top priorities of the U.S. Department of Transportation (U.S. DOT) as well as for the Florida Department of Transportation (FDOT) our partner agency. The theme was also chosen because addressing congestion via multimodal means is an approach we believe is likely to be successful as it considers the transportation system in its entirety, rather than one or more independent parts.

Table of Contents

Director’s Message ......................................................... 4
CMS Milestones/ Performance Indicators .......................... 5
Staff .................................................................................. 6
Organizational Chart ........................................................... 7
External Advisory Board .................................................... 8
Internal Steering Committee ................................................. 9
Financial Report ................................................................. 10
Products of CMS Research .................................................. 11
CMS Partners .................................................................... 13
Research ............................................................................ 16
Education ........................................................................... 23
Workforce Development .................................................... 29
Technology Transfer ............................................................. 30
CMS Affiliated Departments & Centers ............................... 34
CMS Newsletters & Annual Reports .................................. 36
Selected Publications & Presentations ................................. 37

Above: Bikeshare in Barcelona, Spain
It is with mixed emotions I am writing this note for this last CMS annual report. The Research and Innovative Technology Administration (RITA) of the U.S. DOT has announced the decision to discontinue funding of the entire University Transportation Centers (UTC) program as is and to start a re-competition process. Therefore, the CMS’ grant in its current form will officially end June 30, 2012.

As I look back at the four years of CMS funding, there are numerous success stories, some of them highlighted in this annual report. For example, during the past several years CMS researchers have worked closely with our major partner, the Florida Department of Transportation (FDOT) to develop the STEWARD traffic database, as well as tools that can be used for estimating and improving travel time reliability on Florida’s Strategic Intermodal System (see pages 11 and 12 for highlights of CMS products). In the education front, the number of students enrolled in transportation-related degree programs has increased significantly (96 this year versus 56 during the first year of the grant). Following a similar trend, the number of graduate degrees in transportation has doubled in those four years (30 this year versus 13 during the first year of the grant).

The CMS has recently hired a workforce development coordinator, Leslie Washburn, who has hit the ground running, developing ideas and programs and contributing to the Women’s Transportation Seminar WTS/U.S. DOT “Transportation You” program, an initiative supported by Secretary Ray LaHood. A recent CMS funded project (LEGO® Robot Vehicle Lesson Plans for Secondary Education — A Recruitment Tool) led by Washburn aims to introduce students in grades fifth through eighth to transportation engineering as a potential career path using LEGO® Robots as an intelligent vehicle. Washburn is working closely with the UF student chapter of the WTS to deliver these K-12 curricula to local schools. As part of its commitment to workforce development, the CMS has committed sponsorship to the National Transportation Workforce Summit to be held in Washington, D.C., in spring 2012.

Outreach activities during this past year have included seminars, conferences, workshops, and courses taught via distance education. Most notably, the workshop on the Highway Capacity Manual 2010 was held in August 2010, the CMS’ Student Conference was held in March 2011, and the workshop on the CORSIM traffic microsimulator was held in August 2011. In March 2011, Congressman John Mica, R-FL, visited with faculty, students and staff at the UF College of Engineering. The purpose of the meeting was to connect with the Transportation Research Center (TRC) at UF and to learn about the CMS’ activities as they relate to research, education, workforce development and technology transfer. The congressman, a graduate of the UF College of Education, is the chairman of the U.S. House of Representatives Transportation and Infrastructure Committee in Washington, D.C. In Florida, he represents the 7th Congressional District.

During the past four years of the CMS grant, I have greatly enjoyed working with many colleagues at UF and elsewhere, and I am very pleased with the progress we have made in the quality and quantity of our research and educational activities. With the CMS grant approaching its end, I look forward to the next chapter of our UTC-related activities.

Sincerely,

Lily Elefteriadou, Ph.D.
CMS Director
CMS Milestones for 2010-2011

- WTS UF student chapter active (first officially recognized student chapter of WTS International), January 2010
- CMS’ fourth RFP issued, September 2010
- Invitations for full proposal submission, November 2010
- CMS invites Elizabeth Deakin, professor of city and regional planning and urban design, University of California Berkeley as distinguished lecturer, November 2010
- CMS’ seventh newsletter published, December 2010
- CMS co-hosts the UF reception during the 90th Annual Meeting of the Transportation Research Board in Washington, D.C., January 2011
- Doctoral student Grady Carrick wins CMS Student of the Year Award at CUTC/TRB, January 2011
- 2010-2011 Women’s Transportation Seminar (WTS) Award Winners for: Ly Nguyen, Frankee Hellinger Undergraduate Scholarship (C. Fla. Chapter); Dimitra Michalaka, Frankee Hellinger Graduate Scholarship (C. Fla. Chapter), February 2011
- Four new members join the CMS’ External Advisory Board: David Berrigan, NIH; Darryll Dockstader, FDOT; Edward Johnson, LYNX Orlando; Tom Rossi, Cambridge Systematics, Inc.; Grant Zammit, FHWA
- Fourth meeting of the CMS External Advisory Board (EAB), March 3-4, 2011
- Fourth Annual Student Conference, March 4, 2011
- Rep. John Mica, R-FL, Chairman of the House Transportaion and Infrastructure Committee, visits with CMS affiliated faculty, students and staff, March 2011
- Fourth-year projects selected and awarded, April 2011
- $539,307 awarded to seven research projects (year four)
- CMS invites Jana Lynott, AICP, senior strategic policy advisor Transportation and Livable Communities Public Policy Institute American Association of Retired Persons (AARP), as distinguished professional lecturer, April 2011
- Fourth group of transportation interns begin work in TRIP, May 2011
- Spring 2011 CMS newsletter, June 2011

Performance Indicators

- Total number of ongoing CMS funded projects: 16
- Total number of completed CMS projects: 13
- Number of CMS pre-proposals received this year: 23
- Number of research projects awarded this year: 7
- Number of CMS external peer reviewers: 41
- Amount of CMS funds awarded to research projects this year: $539,307
- Total number of FDOT ongoing match projects: 19
- Total number of completed FDOT match projects: 13
- Total number of FDOT match projects initiated this year: 13
- Amount funded by all FDOT match project to date: $4,048,229
- Number of UF colleges involved with the CMS: 6
- Number of UF faculty affiliates: 65
- Number of students enrolled in transportation-related advanced degree programs: 96
- Number of graduate students involved in transportation-related projects: 80
- Number of transportation-affiliated graduate students who have earned their degrees this year: 29
- Number of undergraduate students involved in transportation-related projects: 18
- Number of transportation seminars, symposia, conferences, distance learning classes sponsored by the CMS this year: 656
- Number of transportation courses taught by CMS faculty and staff: 39
- Number of visiting scholars and students in residence this past year: 3
# Staff

<table>
<thead>
<tr>
<th><strong>CMS Staff</strong></th>
<th><strong>CMS Affiliated Staff</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lily Elefteriadou, Ph.D. Professor CMS Director</td>
<td>Dona Moss Grants Specialist College of Engineering</td>
</tr>
<tr>
<td>Ines Aviles-Spadoni, M.S. CMS Manager/Coordinator</td>
<td>Nancy McIlrath-Glanville, M.A. Academic Services Coordinator Civil &amp; Coastal Engineering</td>
</tr>
<tr>
<td>Leslie Washburn, P.E. CMS Workforce Development Coordinator</td>
<td>Carolyn Carpenter, B.S. Administrative Assistant Civil &amp; Coastal Engineering</td>
</tr>
<tr>
<td></td>
<td>Debora Hambrick Senior Fiscal Assistant Civil &amp; Coastal Engineering</td>
</tr>
<tr>
<td></td>
<td>Lucy Hamm Senior Fiscal Assistant Civil &amp; Coastal Engineering</td>
</tr>
<tr>
<td></td>
<td>Tony Murphy Computer Support Civil &amp; Coastal Engineering</td>
</tr>
<tr>
<td></td>
<td>Doretha Ray Office Assistant Civil &amp; Coastal Engineering</td>
</tr>
<tr>
<td></td>
<td>Diana Wade Personnel &amp; Payroll Civil &amp; Coastal Engineering</td>
</tr>
</tbody>
</table>
The role of the External Advisory Board, or EAB, is to guide the activities of the CMS. The board has been instrumental in generating ideas for research projects, and they also evaluate the research selection and performance processes, guide educational activities and assist in technology transfer at the local, state and national levels.

This year, we added four new members to the EAB: David Berrigan, Ph.D., MPH, National Institutes of Health; Edward L. Johnson, Interim Chief Executive Officer, Central Florida Regional Transportation Authority, LYNX; Thomas F. Rossi, Principal, Cambridge Systematics, Inc; and Grant Zammit, FHWA Resource Center.

The center held its fourth EAB meeting on March 3-4, 2011, in conjunction with the CMS Annual Student Conference.

The CMS wishes to express its gratitude to all present and past members for their time and dedication in serving as EAB members from the time the center was established in 2007.

### Past & Current Board Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Role</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>David Berrigan, Ph.D., MPH</strong></td>
<td>Applied Research Program, Division of Cancer Control &amp; Population Sciences, National Cancer Institute, National Institutes of Health</td>
</tr>
<tr>
<td><strong>Elizabeth Birriel, P.E.</strong></td>
<td>Deputy State Traffic Operations Engineer, Florida Department of Transportation</td>
</tr>
<tr>
<td><strong>Tamara Christion</strong></td>
<td>Transportation Planner, Federal Highway Administration</td>
</tr>
<tr>
<td><strong>Max Crumit, P.E.</strong></td>
<td>Transportation Consultant</td>
</tr>
<tr>
<td><strong>J. Darryll Dockstader</strong></td>
<td>Director of Research, Florida Department of Transportation (FDOT)</td>
</tr>
<tr>
<td><strong>Genevieve Giuliano, Ph.D.</strong></td>
<td>Senior Associate Dean, Research and Technology, USC-School of Policy, Planning and Development</td>
</tr>
<tr>
<td><strong>Mark Hallenbeck</strong></td>
<td>UW TRAC Director, University of Washington</td>
</tr>
<tr>
<td><strong>Edward L. Johnson</strong></td>
<td>Interim Chief Executive Officer, Central Florida Regional Transportation Authority, LYNX</td>
</tr>
<tr>
<td><strong>Laura Kelley</strong></td>
<td>Deputy Director/Finance, Administration and Planning, Orlando-Orange County Expressway Authority</td>
</tr>
<tr>
<td><strong>Wayne Kittelson, P.E.</strong></td>
<td>Principal, Kittelson &amp; Associates, Inc.</td>
</tr>
<tr>
<td><strong>Richard Long</strong></td>
<td>Director of Research (Retired), Florida Department of Transportation</td>
</tr>
<tr>
<td><strong>Ananth Prasad, P.E.</strong></td>
<td>Secretary, Florida Department of Transportation</td>
</tr>
<tr>
<td><strong>Debora M. Rivera, P.E.</strong></td>
<td>Director of Transportation Operations, Florida Department of Transportation</td>
</tr>
<tr>
<td><strong>Thomas F. Rossi</strong></td>
<td>Principal, Cambridge Systematics, Inc.</td>
</tr>
<tr>
<td><strong>Teresa Scott, P.E.</strong></td>
<td>Director of Public Works, City of Gainesville</td>
</tr>
<tr>
<td><strong>Linda Watson</strong></td>
<td>Former Chief Executive Officer, LYNX</td>
</tr>
<tr>
<td><strong>Grant Zammit, P.E.</strong></td>
<td>Team Leader, Operations Technical Service Team, FHWA Resource Center</td>
</tr>
</tbody>
</table>

Above: David Berrigan with Lily Elefteriadou during the CMS’ Annual Student Conference poster session.

CMS External Advisory Board Members during the March 3-4, 2011 meeting.
The center’s Internal Steering Committee, or ISC, is comprised of faculty representing the four main academic disciplines associated with the CMS: transportation, industrial and systems engineering, occupational therapy, and urban and regional planning. It includes center staff and representatives from the transportation-related centers at the University of Florida. The main goal of the ISC is to develop, implement and guide center activities, manage its resources and ensure that objectives are being met. The ISC meets once a month.

**Internal Steering Committee**

- **Lily Elefteriadou, Ph.D.**
  Professor
  Civil & Coastal Engineering
  CMS Director

- **Reynaldo Roque, Ph.D., P.E.**
  Professor
  Civil & Coastal Engineering

- **Ines Aviles-Spadoni, M.S.**
  CMS Manager/Coordinator

- **Bill Sampson, M.S., P.E.**
  Director
  McTrans Center

- **Sherrilene Classen, Ph.D., MPH, OTR/L**
  Associate Professor
  Occupational Therapy

- **Ruth Steiner, Ph.D.**
  Associate Professor
  CMS Associate Director
  Urban & Regional Planning

- **Janet Degner, M.S.**
  Director
  T² Center

- **Scott Washburn, Ph.D., P.E.**
  Associate Professor
  Civil & Coastal Engineering

- **Siriphong (Toi) Lawphongpanich, Ph.D.**
  Associate Professor
  Industrial & Systems
Financial Report

Chart 1, represents funds spent for the 2010-2011 fiscal year. Funding for research accounted for more than half of the center's budget at 58 percent. Twenty percent of the CMS budget went into educational activities with 11 percent spent on outreach. This year, the CMS had 8 percent administrative costs and 3 percent remaining in unspent funds.

Chart 2, represents funds allocated for the 2010-2011 fiscal year by source (federal and state). Federal funds accounted for 38 percent of the CMS' funding and state funding counted for 62 percent. The primary source of non-federal funds for the CMS come from the Florida Department of Transportation, which has committed to match the USDOT/RITA grant.
Creation of Traffic Data Repository Provides Stakeholders with Easily Accessible Rich Supply of Data

http://cdwserver.ce.ufl.edu/steward/index.html

Traffic management centers, or TMCs, in the metropolitan areas of Florida obtain traffic flow data from their Intelligent Transportation Systems, or ITS, surveillance hardware and software, known as the SunGuide system. The SunGuide system is designed specifically to serve the Florida Department of Transportation (FDOT). The amount of traffic data generated by these systems is so large that simply saving the raw data would be of no use to the stakeholders (ITS operators and engineers, state planners, transportation researchers and private sector users), unless the data are provided to them at some level of aggregation or presented in a simple format. The Statewide Transportation Engineering Warehouse for Archived Regional Data, or STEWARD, was designed and implemented to address this need. The primary function of STEWARD is to provide a repository for the data generated by the SunGuide system, and provide the stakeholders with a rich supply of data from Florida’s busiest roadways for a variety of purposes. STEWARD processes the raw traffic data obtained from the TMCs, organizes the processed data in a database system, creates a number of useful traffic information and traffic data diagnostic (based on traffic flow principles) reports, and provides Web interface for data users to access and retrieve the reports.

The stakeholders can then access these reports by downloading them to their personal computers or by viewing them on their screen. Apart from the daily traffic data and several custom reports, the system’s website also provides several desktop utility programs to the stakeholders that help them to create special analysis reports from the downloaded data. Additionally, the website displays the detector locations in a geographic format with a satellite photo overlay, which facilitates the identification of the detector locations of interest. STEWARD has created an important resource for a wide variety of traffic data users in Florida, which include practitioners and researchers. Practitioners benefit from STEWARD because it provides them with travel time reliability reporting, hot spot identification, performance measure trends, and assessment of capacity and LOS, or level of service. STEWARD is also a valuable resource for researchers working on various projects, which look at analyzing speed-flow-density relationships, the effects of an incident, managed lanes operations and travel time reliability.

Functionality and Features Improved for Traffic Simulation Software

CORSIM, or CORridor SIMulation, has been used by many practitioners and researchers in the U.S. and worldwide for more than 30 years. It was initially created by the Federal Highway Administration (FHWA) and then given to the University of Florida to maintain and further develop the software. CORSIM is a comprehensive microscopic traffic simulation software, applicable to surface streets, freeways and integrated networks with a complete selection of control devices such as stop/yield sign, traffic signals, and ramp metering, to name a few. In the past couple of years, the CMS has funded faculty researchers to continue CORSIM’s improvement and enhance its functionality. CMS funding has resulted in newly added features to CORSIM such as: two-lane highways, toll plazas, HOT lanes, HCS Streets and T-7F interoperability, roundabouts, workzones, freeway queue measurement, lane utilization and lane selection, truck exit percentages, emergency vehicle and signal pre-emption, and runtime extensions. In August 2011, a workshop and focus group was held to introduce these new features. Practitioners from several consulting firms such as TransSystmes, Kimley-Horn, Inc., Tindale Oliver & Associates, Jacobs Engineering Group, Kisinger Campo, Prosser Hallock, Inc., Stanley Consultants, Inc., RS&H, Inc., HNTB Corporation, URS Corporation, Kittelson & Associates, Inc., and public entities such as FDOT and Florida Turnpike Enterprise, are currently using CORSIM.
Conference Encourages Exchange and Transfer of Ideas in Transportation Pricing

The primary objective of the Innovations in Pricing of Transportation Systems: Workshop and Conference was to bring together practitioners, experts and researchers worldwide to discuss and share innovative ideas on transportation pricing. The conference provided an environment conducive to encouraging discussion and the transfer of ideas among the more than 90 participants who attended from the U.S. and internationally. Conference participants were from nine countries and had varied backgrounds in economics, transportation, civil engineering, operations research, industrial engineering, urban planning, social science, etc. A special issue of the CMS newsletter was created, which featured various articles from several of the conference speakers. To access the newsletter, visit: http://cms.ce.ufl.edu/publications/newsletter.php.

Travel Time Reliability Tools for the Florida Department of Transportation

A series of six FDOT-funded research projects have developed tools for estimating travel time reliability on Florida’s Strategic Intermodal System, or SIS. Travel time reliability is a key performance measure that allows the evaluation of the system over time and considering a wide range of conditions including the presence of incidents, adverse weather and work zones. The goal of the SIS is to provide a transportation system that efficiently serves Florida’s citizens, businesses and visitors: a transportation system that helps Florida become a worldwide economic leader, enhances economic prosperity and competitiveness, enriches quality of life, and reflects responsible environmental stewardship. The SIS consists of transportation facilities and services of statewide and interregional significance, including both freeways and arterials. The tools developed to-date by CMS researchers predict travel time reliability for the entire freeway portion of the SIS, while tools for estimating reliability along arterial segments are under development. These tools can provide travel time reliability as a function of various changes in the system, such as incident removal times and work zone occurrences. For example, they can be used to evaluate system-wide implementation alternatives such as road-ranger programs to specific freeway sections, or the installation of various freeway management tools. Additional information is available in final reports http://cms.ce.ufl.edu/research/completed_projects.php.
The CMS recognizes the many significant contributions of our partner agencies and universities. The following public and private agencies have contributed in various ways to the mission of the center, and for that we thank them.

Alion Science & Technology Corp.  
Aristotle University of Thessaloniki, Greece  
Cambridge Systematics  
City of Gainesville  
Dowling Associates, Inc.  
Federal Highway Administration (FHWA)  
Florida Department of Transportation (FDOT; Headquarters, Tallahassee)  
Florida District Five (Orlando, Fla.)  
Florida Highway Patrol (FHP)  
Kimley-Horn  
HMS Company  
HNTB  
Kisinger Campo & Associates Corp.  
Kittelson & Associates, Inc.  
LYNX  
Midwest Research Institute  
National Institutes of Health  
Orlando-Orange County Expressway Authority (OOCEA)  
PATH/University of California, Berkeley  
ATKINS  
Rose-Hulman Institute of Technology  
Stantech/Street Smarts  
T-Concepts Corporation  
Technical University of Crete, Greece  
Telvent  
Tongji University, China  
Transport Simulation Systems (TSS)  
Transportation Research Board (TRB)  
University of Bochum, Germany  
University of Hartford  
University of Madrid, Spain  
University of Massachusetts, Amherst  
University of Michigan  
University of Minnesota  
University of Southern California (METRANS)  
University of Tennessee (Southeastern Transportation Center, STC)  
University of Texas at Austin  
University of Twente, Netherlands  
University of Washington  
University of Wisconsin, Madison  
Utrecht University, Netherlands  
Villanova University
Research at the CMS is conducted by a multidisciplinary group of faculty working together to develop methods that have the potential to mitigate congestion problems both nationally and internationally. Some key areas of research in congestion mitigation at the CMS include traffic operations, congestion pricing and transportation and land-use planning. The multidisciplinary nature of the CMS allows it to utilize valuable expertise and contribute in subject areas such as freeway management, transportation financing, sustainability and livability, land use and transportation relationships, emergency evacuation, older driver issues and supply chains.

The CMS employs a rigorous, multi-step peer-reviewed research selection process that includes a pre-proposal submitted by principal investigators (PIs) that is reviewed by the center’s Project Review Committee (faculty not associated with the pre-proposal). Based on these peer reviews, selected pre-proposals are invited for full proposal submission. Full proposals are peer-reviewed by external (outside UF) reviewers including academics and public sector representatives. Selections of final projects are made based on the input of these reviewers. CMS projects are selected to support the objectives of the center, the FDOT and the U.S. DOT.

Ongoing projects are posted at http://cms.ce.ufl.edu/research/completed_projects.php. The projects are monitored closely, and quarterly reports are collected to ensure each project is progressing as planned. Final reports and other publications generated from the center are posted on the CMS website at http://cms.ce.ufl.edu/research/completed_projects.php.

In fall 2010, the CMS issued its fourth call for pre-proposals for projects beginning in spring 2011. The RFP generated 23 pre-proposals, of which 10 were invited to proceed to the full proposal stage. The external review process resulted in the selection of seven projects, for a total award amount of $539,307.

The FDOT has partnered with the CMS to provide matching funds for the center. The past four years yielded a total of 32 match projects totaling $4,048,229. A list of CMS and FDOT funded projects is shown in the following pages.
Ongoing CMS Projects

Year Four

- **LEGO® Robot Vehicle Lesson Plans for Secondary Education - A Recruitment Tool**
  PI: Janet Degner, Director T²
  Department: Florida Transportation Technology Transfer Center T2
  Project # 2011-001

- **Route-Choice Modeling using GPS-Based Travel Surveys**
  PI: Siva Srinivasan, Ph.D.
  Department: Civil & Coastal Engineering
  Project # 2011-008

- **Privacy Preserving Methods to Retrieve Origin-Destination Information from Converted Vehicles**
  PI: Yafeng Yin, Ph.D.
  Department: Civil & Coastal Engineering
  Project # 2011-009

- **Florida Long Distance Travel Characteristics and Their Impacts on Transportation Systems**
  PI: Ruth Steiner, Ph.D.
  Department: Urban & Regional Planning
  Project # 2011-013

- **Strengthening the Resiliency of the Coastal transportation System Through Integrated Simulation of Stormsurge, Inundation, and Non-Recurrent Congestion in Northeast Florida**
  PI: Peter Sheng, Ph.D.
  Department: Civil & Coastal Engineering
  Project # 2011-017

- **Modeling the Interaction among Urban Form, Accessibility, Congestion, and Travel Behavior using System Dynamics**
  PI: Andres Blanco, Ph.D.
  Department: Urban & Regional Planning
  Project # 2011-019

- **The Impacts of Freight Mode Splitting on Congestion, Risk, and Delivery Reliability**
  PI: Joseph Geunes, Ph.D.
  Department: Industrial & Systems Engineering
  Project # 2011-023

Year Three

- **Protecting Public Interests in Public-Private-Partnership Arrangements for Highway Improvement**
  PI: Yafeng Yin, Ph.D.
  Department: Civil & Coastal Engineering – Transportation
  Project # 2010-002

- **Enhancing CORSIM for Simulating High Occupancy/Toll Lane Operations**
  PI: Yafeng Yin, Ph.D.
  Department: Civil & Coastal Engineering – Transportation
  Project # 2010-005

- **Development of an Analytical Methodology for Two-Lane Highway Facility Analysis**
  PI: Scott Washburn, Ph.D.
  Department: Civil & Coastal Engineering – Transportation
  Project # 2010-007

- **Validity and Usability of a Safe Driving Behaviors Measure for Older Adults: Strategy for Congestion Mitigation**
  PI: Sherrilene Classen, Ph.D.
  Department: Occupational Therapy
  Project # 2010-012

- **Nonlinear Road Pricing for Congestion and the Environment**
  PI: Siriphong (Toi) Lawphongpanich, Ph.D.
  Department: Industrial & Systems Engineering
  Project # 2010-016

- **Enhancement of a Network Analysis Tool to Accommodate Multiple Construction Work Zone Analysis**
  PI: Ralph Ellis, Ph.D.
  Department: Civil & Coastal Engineering – Construction
  CMS Project # 2010-017

- **Impacts of Efficient Transportation Capacity Utilization via Multi-Product Consolidation on Transportation Network Usage and Congestion**
  PI: Joseph Geunes, Ph.D.
  Department: Industrial & Systems Engineering
  CMS Project # 2010-018
**Ongoing CMS Projects**

**Year Two**

**Tour Generation Models for Florida**  
PI: Siva Srinivasan, Ph.D.  
Department: Civil & Coastal Engineering – Transportation  
Project # 2009-008

**Needs Assessment of Land Use Modeling for FSUTMS, Phase I**  
PI: Zhong-Ren Peng, Ph.D.  
Department: Urban & Regional Planning  
Project # 2009-013

**Completed CMS Projects**

**Year One**

**Central Data Warehouse Configuration, Data Analysis for Congestion Mitigation Studies**  
PI: Kenneth Courage, P. Eng.  
Department: Civil & Coastal Engineering  
Project # 2008-001

**Development of Simulation Program for Two-Lane Highway Analysis**  
PI: Scott Washburn, Ph.D.  
Department: Civil & Coastal Engineering  
Project # 2008-002

**Simulation-Based Robust Optimization for Actuated Signal Timing and Setting**  
PI: Yafeng Yin, Ph.D.  
Department: Civil & Coastal Engineering  
Project # 2008-003

**Characterizing the Tradeoffs and Costs Associated with Transportation Congestion in Supply Chains**  
PI: Joseph Geunes, Ph.D.  
Department: Industrial & Systems Engineering  
Project # 2008-004

**Multimodal Solutions for Large Scale Evacuations**  
PI: Panos Pardalos, Ph.D.  
Department: Industrial & Systems Engineering  
Project # 2008-005

**A Pricing Approach for Mitigating Congestion in Multimodal Transportation Systems**  
PI: Siriphong (Toi) Lawphongpanich, Ph.D.  
Department: Civil & Coastal Engineering  
Project # 2008-006

**Vehicle-Miles-of-Travel-Based Traffic Impact Assessment Methodology**  
PI: Ruth Steiner, Ph.D.  
Department: Urban & Regional Planning  
Project # 2008-007

**Year Two**

**Innovations in Pricing of Transportation Systems: Theory and Practice Congestion**  
PI: Siriphong (Toi) Lawphongpanich, Ph.D.  
Department: Industrial & Systems Engineering  
CMS Project # 2009-004

**Using Microsimulation to Evaluate the Effects of Advanced Vehicle Technologies on Congestion**  
PI: Lily Elefteriadou, Ph.D.  
Department: Civil & Coastal Engineering – Transportation  
CMS Project # 2009-006

**Development of a Multimodal Transportation Educational Virtual Appliance (MTEVA) to Study Congestion During Extreme Tropical Events**  
PI: Peter Sheng, Ph.D.  
Department: Civil & Coastal Engineering  
Project # 2009-010 (under external review)

**Robust Congestion Pricing under Boundedly Rational Behaviors**  
PI: Yafeng Yin, Ph.D.  
Department: Civil & Coastal Engineering  
Project # 2009-012
Completed CMS Projects

**Year 3**

**Novel Approaches for Road Congestion Minimization**
Pl: Panos Pardalos, Ph.D.
Department: Industrial & Systems Engineering
Project # 2010-001
(under external review)

**The Effects of Impact Fees in Urban Form and Congestion in Florida**
Pl: Andres Blanco, Ph.D.
Department: Urban & Regional Planning
Project # 2010-013
(under external review)

**Development of a Prototype Land Use Model for Statewide Transportation Planning Activities**
Pl: Zhong-Ren Peng, Ph.D.
Department: Urban & Regional Planning
Project # 78101 (and supplement)

**Managed Lane Operations-Adjusted Time of Day Pricing vs. Near Real Time Dynamic Pricing**
Pl: Yafeng Yin, Ph.D.
Department: Civil & Coastal Engineering – Transportation
Project # 81551

**Development and Calibration of Highway Safety Manual Equations for Florida Conditions**
Pl: Siva Srinivasan, Ph.D.
Department: Civil & Coastal Engineering – Transportation
Project # 82013

**Impact of Parking Supply and Demand Management on Central Business District (CBD) Traffic Congestion Transit Performance and Sustainable Land Use**
Pl: Ruth Steiner, Ph.D.
Department: Urban & Regional Planning
Project # 85436

**Multimodal and Corridor Applications of Travel Time Reliability**
Pl: Lily Elefteriadou, Ph.D.
Department: Florida Civil & Coastal Engineering
Project # 87798

Ongoing FDOT Projects

**The Effects of Impact Fees in Urban Form and Congestion in Florida**
Pl: Andres Blanco, Ph.D.
Department: Urban & Regional Planning
Project # 2010-013
(under external review)

**Managed Lane Operations-Adjusted Time of Day Pricing vs. Near Real Time Dynamic Pricing (supplement to 81551)**
Pl: Yafeng Yin, Ph.D.
Co-Pl: Lily Elefteriadou, Ph.D.
Department: Florida Civil & Coastal Engineering
Project # 88583

**Variable Speed Limit (VSL) Best Management Practice**
Pl: Lily Elefteriadou, Ph.D.
Co-Pls: Yafeng Yin, Ph.D., Scott Washburn, Ph.D.
Department: Civil & Coastal Engineering
Project # 88592

**Arterial Highway Capacity and Level of Service Analysis for Florida**
Pl: Scott Washburn, Ph.D.
Department: Civil & Coastal Engineering
Project # 90337

**Development of Activity-Based Travel-Demand Models for Florida: An Assessment of Feasibility and Transferability**
Pl: Siva Srinivasan, Ph.D.
Department: Civil & Coastal Engineering
Project # 90425

**Central Data Warehouse Enhancements, Part 2**
Pl: Scott Washburn, Ph.D.
Department: Civil & Coastal Engineering
Project # 92671

**Validity and Usability of a Safe Driving Behaviors Measure for Older Adults**
Pl: Sherrilene Classen, Ph.D.
Department: Occupational Therapy
Project # 92791
Ongoing FDOT Projects

Expanded Transportation Performance Measures to Supplement Level of Service (LOS) for Growth Management and Transportation Impact Analysis
PI: Lily Elefteriadou, Ph.D.
Co-PI: Ruth Steiner, Ph.D., Siva Srinivasan, Ph.D.
Departments: Civil & Coastal Engineering/Urban & Regional Planning
Project # 93661

Heavy Vehicle Effects on Florida Freeways and Highways
PI: Scott Washburn, Ph.D.
Department: Civil & Coastal Engineering
Project # 93817

Nonlinear Road Pricing
PI: Toi Laphongphanich, Ph.D.
Co-PI: Yafeng Yin, Ph.D.
Departments: Civil & Coastal Engineering/Industrial & Systems Engineering
Project # 93713 & 93714

Development of Recommendations for Arterial Lane Closure to Optimize Traffic Operations
PI: Lily Elefteriadou, Ph.D.
Department: Civil & Coastal Engineering
Project # 93498

Regional Cooperation in Transportation Planning
PI: Ruth Steiner, Ph.D.
Co-PI: Kathryn Frank, Ph.D.
Department: Urban & Regional Planning
Project # 93946

Impact of Lane Closures on Roadway Capacity, Phase 2
PI: Scott Washburn, Ph.D.
Department: Civil & Coastal Engineering
Project # 93879

LOSPLAN 2012: Updates for the HCM 2010
PI: Scott Washburn P.D.
Department: Civil & Coastal Engineering
Project: # 94779

Completed FDOT Projects

Field Data Collection and Analysis for Freeway Work-Zone Capacity Estimation
PI: Lily Elefteriadou, Ph.D.
Department: Civil & Coastal Engineering
Project # 67207

Implementation of the Statewide Traffic Engineering Warehouse for Regionally Archived Data (STEWARD)
PI: Kenneth Courage, Professor Emeritus
Department: Civil & Coastal Engineering
Project # 72734

Investigation of Freeway Capacity: A) Effective Capacity of Auxiliary Lanes and B) Segment Capacity as a Function of Number of Lanes and Merge/Diverge Activity
PI: Scott Washburn, Ph.D.
Department: Civil & Coastal Engineering
Project # 73157 & 74022

Trip Generation Characteristics of Special Generators
PI: Yafeng Yin, Ph.D.
Department: Civil & Coastal Engineering
Project # 76173

Multimodal Arterial LOS Modeling and Testing
PI: Scott Washburn, Ph.D.
Department: Civil & Coastal Engineering
Project # 76279 & 76293

Travel Time Reliability Modeling for Florida
PI: Lily Elefteriadou, Ph.D.
Department: Civil & Coastal Engineering
Project # 77415

Economic Cost of Traffic Congestion in Florida
PI: Andres Blanco, Ph.D.
Department: Urban & Regional Planning
Project # 79102

Improvements and Enhancements to LOSPLAN 2009
PI: Scott Washburn, Ph.D.
Department: Civil & Coastal Engineering
Project # 81431

Travel Time Reliability Implementation for the Freeway SIS
PI: Lily Elefteriadou, Ph.D.
Department: Civil & Coastal Engineering
Project # 84708
Completed FDOT Projects

Safe Mobility for Life Training Course: Planning & Designing for Our Aging Population (Phase 2)

Pi: Janet Degner, Director T²
Department: University of Florida Transportation Technology
Transfer Center (T²)
Project # 85528

Effective and Efficient Deployment of Dynamic Message Signs to Display Travel Time Information

Pi: Yafeng Yin, Ph.D.
Co-Pi: Toi Lawphongpanich, Ph.D.
Departments: Civil & Coastal Engineering; Industrial & Systems Engineering
Project #79803 & #79804

CMS Publications & Presentations

CMS Plublications


Lawphongpanich, S., and Yin, Y, Nonlinear Road Pricing, Transportation Research Part C, available online.


CMS Publications & Presentations


CMS Presentations


Lawphongpanich, S. (December 2010). Recent Developments in Models for Congestion Pricing, a plenary session talk, The 15th International Conference of Hong Kong Society for Transportation Studies, Hong Kong.


Wu, D., Yin, Y., and Lawphongpanich, S. (December 2010.) Design of more equitable pricing schemes by capturing their distributional effects. 15th International Conference of Hong Kong Society for Transportation Studies, Hong Kong.


U of Florida (UF) currently offers 11 undergraduate and 39 graduate transportation-related courses. These courses are taught in the departments of Civil & Coastal Engineering, Industrial & Systems Engineering, Occupational Therapy, and Urban & Regional Planning. A total of 96 graduate students are affiliated with the CMS through direct participation in CMS-funded projects or other transportation-related projects. There are 80 graduate students working on transportation-related projects and 18 undergraduate students affiliated with the center. The center has awarded a total of four CMS assistantships during the 2010-2011 school year, and these students are currently working on their master’s or doctorate degrees.

The CMS provides an interdisciplinary research and educational environment, through a variety of programs including the Concurrent Degree in Transportation Engineering and Urban Planning, which began in 2007, distance education courses, and offering a summer internship to undergraduate students otherwise known as the The Transportation Research Internship Program, or TRIP. This internship is offered each summer. Its goal is to provide the opportunity for undergraduate students to work alongside faculty and graduate students on a variety of transportation-related research projects.

In addition to working on research projects and taking courses, graduate students affiliated with the CMS present their work at various meetings and conferences and organize seminars and other activities sponsored by the UF student chapters of the Institute of Transportation Engineers (ITE) and the Women’s Transportation Seminar (WTS).

CMS-affiliated students also have been the recipients of many prestigious awards and fellowships and have won several national and international competitions. For the second year in a row, the UF ITE student chapter won the 2011 District 10 Traffic Bowl. The 2011 team members were Miguel Lugo, Philip Haas, and Alex Kribbs.

**Concurrent Degree Program**

The concurrent degree program prepares students for a career in the interdisciplinary field of planning, designing and operating urban infrastructure. Students take courses in transportation engineering and urban planning and earn a Master of Engineering (M.E.) or a Master of Science (M.S.), and a Master of Arts in Urban & Regional Planning (MAURP). Students take a total of 73 credit hours (30 in transportation engineering and 52 in urban planning, with nine credits shared between both degrees). The program takes three years to complete. Funding opportunities are available for students through the CMS or the departments of Civil & Coastal Engineering and Urban & Regional Planning.
Transportation Research Internship Program (TRIP)

TRIP is designed to expose undergraduate students to the world of transportation research. Interns have the opportunity to participate in cutting-edge research with faculty and graduate students at the CMS. CMS expects the research internships to help spark the students’ interest in pursuing graduate studies and a career in transportation engineering. The program runs from May to August every summer, and students work at least 20 hours per week. Interns participate in research projects related to traffic operations, highway capacity and quality of service, reliability, safety, travel modeling, network optimization and transportation systems planning. Interns in the program are supervised by a faculty adviser and work in close collaboration with master’s and doctoral students. Interns are also required to attend seminars presented by faculty and students. Students produce a research report related to their assigned project, which is presented at the end of their internship period.

Interns & Projects 2011

Paul Beata
Topic: Regional Cooperation in Transportation Planning
Adviser: Ruth Steiner, Ph.D., Associate Professor, Urban & Regional Planning

Michael Cangialosi
Topic: Implementation of ATDM Strategies in Freeway Facilities 2010
Adviser: Scott Washburn, Ph.D., P.E., Associate Professor, Civil & Coastal Engineering

Ryan Hormel
Topic: Development of Calibration Factors for HSM Roadway Segment and Intersection Crash Prediction Methods
Adviser: Siva Srinivasan, Ph.D., Associate Professor, Civil & Coastal Engineering

Leon Paredes
Topic: CORSIM Enhancement Simulating HOT Lane Operations
Advisers: Yafeng Yin, Ph.D., Associate Professor, Civil & Coastal Engineering; Dimitra Michalaka (doctoral student) Civil & Coastal Engineering

Silvana Vargas
Topic: Experimental Design for Two-Lane Highway Project
Adviser: Scott Washburn, Ph.D., P.E., Associate Professor, Civil & Coastal Engineering

CMS-Affiliated Undergraduate Students

David Champoux (TRIP Sum 2010), Clarkson University
Corey Hill (TRIP Sum 2010), CCE
Ashlie Kerr (TRIP Sum 2010), CCE
Sam Budzyna (TRIP Sum 2010), University of Missouri
Austin Mattus (TRIP Sum 2010), Villanova University
Dustin Lee Meyer, OT
Kevin Marquez, CCE
Danielle Soriano, CCE
Christina LaFranca, OT
Amy Lapa, OT
Nikki Cosse, OT
William Siver, OT
Paul Beata (TRIP Sum 2011), CCE
Michael Cangialosi (TRIP Sum 2011), CCE
Ryan Hormel (TRIP Sum 2011), CCE
Leon Paredes (TRIP Sum 2011), CCE
Silvana Vargas (TRIP Sum 2011), CCE
Chase Wilkinson (TRIP Sum 2011), CCE

CCE = Civil & Coastal Engineering
OT = Occupational Therapy
CMS-Affiliated Graduate Students

Adejumo, Michelle, CCE, PHD
Alvarez, Jessica, URP/CCE, MAURP/MS
Anderson, Nicole, URP, MAURP
Anderson, Stephen, URP, MAURP
Arafat, Abdulnasser, URP, PHD
Beigler, Kevin, URP, MAURP
Bekele, Addisu, CCE, MS
Berensci, Miklos, CCE, MS
Carlton, John, CCE, MS
Carrick, Grady, CCE, PHD
Cho, Hee Deok, URP, PHD
Chen, Shuang, ISE, PHD
Chen Xiao, ISE, MS
Chung, Hyungchul, URP, PHD
Cosse, Nicole M., OT, MS
Debra, George, CCE, MS
Delarco, Lauren, URP, MAURP
DeVault, Andrew, URP, MAURP
Dhakar, Nagendra Singh, CCE, PHD
Dillaha, Christopher, URP, MAURP
Eddelton, Forrest, URP, MAURP
Fuller, Bret, CCE, MS
Haddad, Dima, URP, MAURP
Hammontree, Heather, CCE, MS
Hanes, Ali, CCE, MS
Hanley, Gareth, URP, MAURP
Harrod, Genesis, URP/CCE, MAURP/MS
Hass, Philip, CCE, PHD
He, Fang, CCE, MS
Hoffman, Joshua, URP, MAURP
Hutton, Christen, URP, MAURP
Juneja, Deepthi, CCE, MS
Kain, Jacob, URP, MAURP
Khanapure, Vishal, CSE, MS
Kim, Jeongseob, URP, PHD
Konur, Dincer, ISE, PHD
Kreig, Alex, URP, MAURP
Krujlac, Shani, URP, PHD
Kulshretha, Ashish, CCE, PHD
Lamb, Amy, OT, PHD
Leonard, Katie, URP, MAURP
Letter, Clark, CCE, MS
Li, Chao, ISE, MS/PHD
Li, Jing, CCE, PHD
Li, Zhuofei, CCE, PHD
Lim, Kwangkyu, CCE, PHD
Lisska, William, URP, MAURP
Lu, Cuie, CCE, PHD
Lu, Jie, CCE, MS
Lugo, Miguel, CCE, PHD
Ma, Lu, CCE, PHD
Mackey, Jessica, URP/CCE, MAURP/MS
Mallavarap, Saahith, CCE, MS
Mamun, Md (Mohammed), CCE, PhD
Martin, Barbara, CCE, MS
McDuffie, Doug, URP, MAURP
McLeod, Jay, URP, MAURP
Michalaka, Dimitra, CCE, MS
Mintsis, Evangelos, CCE, MS
Nowrouzia, Roosbeh, CCE, PHD
O’Keefe, Miles, URP, MAURP
Osborne, Robin, CCE, MS
Ozkul, Seckin, CCE, PHD
Perch, Sarah, URP, MAURP
Perez, Cinthia, ISE, PHD
Pesantes-Tavares, Eileen, CCE, PHD
Provost, Russell, URP, MAURP
Poling, Alex, CCE, MS
Ramachandran, Hari, ISE, PHD
Rebenack, Steffan, ISE, MS
Sanjay, Paul, CCE, PHD
Severyn, Jesette, URP, MAURP
Sharma, Endira, URP, MAURP
Shen, Suwan, URP, PHD
Shmaltzuyev, Max, URP, MAURP
Silver, William M., OT, MS
Song, Kyo Won, CCE, MS
Song, Ziqi, CCE, PHD
Sucar, Vanessa, URP, MAURP
Tompson, Elizabeth, URP, MAURP
Tove, Orlando, ISE, PHD
Uy, Jorge, CCE, MS
Wang, Ruoniou, URP, MAURP
Wang, Yanning, OT, PHD
Wendin, Martin, ISE, MS
Willits, Justin, URP, MAURP
Winfield, Stacey, URP, MAURP
Wu, Di, CCE, PHD
Yang, Fei, URP, PHD
Yang, Wen Cui, URP, MAURP
Yoon, Sul Hee, URP, MAURP
Zangui, Mahmood, CCE, PHD
Zhang, Lihui, CCE, PHD
Zhang, Yili, ISE, PHD
Zhang, Qipeng Phil, ISE, PHD
Zhu, Xiaoyu, CCE, PHD

CCE = Civil & Coastal Engineering
CISE = Computer & Information Science & Engineering
ISE = Industrial & Systems Engineering
OT = Occupational Therapy
URP = Urban & Regional Planning
MAURP = Master of Arts of Urban & Regional Planning
CMS Student of the Year

Grady Carrick was selected as the 2011 CMS Outstanding Student of the Year. The award was presented to him during the Council of University Transportation Centers (CUTC) Banquet in January 2011 during the 90th Meeting of the Transportation Research Board in Washington, D.C. Grady Carrick is a doctoral student in the transportation graduate program at the University of Florida. He is also a regional commander in the Florida Highway Patrol (FHP), a duty that stretches all the way from Jacksonville to Pensacola in the Florida panhandle, and as far south as Ocala, Fla. Read more about Grady Carrick in the fall 2009 issue of the CMS newsletter, pages 12 and 13, or visit: http://cms.ce.ufl.edu/publications/newsletter.php.

The Outstanding Student of the Year is an awards program sponsored by the U.S. DOT/Research & Innovative Technology Administration, or RITA. All active University Transportation Centers in the nation participate. UTC faculty members nominate students at their respective institutions. Criteria are based on academic performance, technical and research merit and professionalism and leadership skills. Selected students are honored each January during a banquet held by the Council of University Transportation Centers, or CUTC, at TRB. Students are given a certificate from the U.S. DOT and a $1,000 award from their home UTC.

Life after Graduate School & Where They are Now (2010-2011)
(This list contains a snapshot of where some of our graduates are employed)

Jessica Alvarez, M.S./MAURP (UF 2010)
Transportation Planner, City of Gainesville

Ashwin Arulselvan, Ph.D. (UF 2010)
Research Faculty, Technical University of Berlin, Germany

Andrew Avent, M.S. (UF 2010)
H.S. Teacher, Edward H. White High School, Jacksonville, Fla.

Xiao Chen, M.S. (UF 2011)
IT Consultant, ML Technologies, Inc.

Georgios Chrysikopoulos, M.S. (UF 2010)
Transportation Consulting, Athens

George Debra, M.S. (UF 2010)
Civil Engineer, Ghana Ministry of Transportation Division of Policy and Planning

Brett Fuller, M.S. (UF 2011)
Wantman Group, Inc.
West Palm Beach

Ali Hanes, M.S. (UF 2011)
Kimley-Horn, Inc.
Orlando

Heather Hammontree, M.S. (UF 2010)
Hammontree & Associates, Ltd North Canton (Ohio)

Vishal Khanapure, M.S. (UF 2010)
Programmer, UF McTrans

Dincer Konur, Ph.D. (UF 2011)
Post-Doctoral Researcher, University of Tennessee

Clark Letter, M.S. (UF 2011)
Transportation Engineer, University of Florida

Barbara Martin, M.S. (UF 2010)
Logit Transportation Consulting, Sao Paolo, Brazil

Alexander Poling, M.S. (UF 2011)
ARUP, California

Steffen Rebennack, Ph.D.
Assistant Professor
Colorado School of Mines

Michael Riebe, M.S. (UF 2010)
Transportation Engineer, San Francisco Municipal Transportation Agency Livable Streets Division

Yen Wen Shao, M.S. (UF 2010)
Ph.D. Student, Pennsylvania State University

Irene Soria, M.S. (UF 2010)
Civil Engineer, Illinois Department of Transportation

Lihui Zhang, Ph.D. (UF 2010)
Assistant Professor, Dalian University of Technology, China

Qipeng Phil Zheng, Ph.D.,
Assistant Professor, Department of Industrial and Management Systems Engineering, West Virginia

Xiaoyu Zhu, Ph.D. (UF 2011)
Post-Doctoral Researcher, University of Florida

Jessica Alvarez, M.S./MAURP (UF 2010)
Transportation Planner, City of Gainesville

Ashwin Arulselvan, Ph.D. (UF 2010)
Research Faculty, Technical University of Berlin, Germany

Andrew Avent, M.S. (UF 2010)
H.S. Teacher, Edward H. White High School, Jacksonville, Fla.

Xiao Chen, M.S. (UF 2011)
IT Consultant, ML Technologies, Inc.

Georgios Chrysikopoulos, M.S. (UF 2010)
Transportation Consulting, Athens

George Debra, M.S. (UF 2010)
Civil Engineer, Ghana Ministry of Transportation Division of Policy and Planning

Brett Fuller, M.S. (UF 2011)
Wantman Group, Inc.
West Palm Beach

Ali Hanes, M.S. (UF 2011)
Kimley-Horn, Inc.
Orlando

Heather Hammontree, M.S. (UF 2010)
Hammontree & Associates, Ltd North Canton (Ohio)

Vishal Khanapure, M.S. (UF 2010)
Programmer, UF McTrans

Dincer Konur, Ph.D. (UF 2011)
Post-Doctoral Researcher, University of Tennessee

Clark Letter, M.S. (UF 2011)
Transportation Engineer, University of Florida

Barbara Martin, M.S. (UF 2010)
Logit Transportation Consulting, Sao Paolo, Brazil

Alexander Poling, M.S. (UF 2011)
ARUP, California

Steffen Rebennack, Ph.D.
Assistant Professor
Colorado School of Mines

Michael Riebe, M.S. (UF 2010)
Transportation Engineer, San Francisco Municipal Transportation Agency Livable Streets Division

Yen Wen Shao, M.S. (UF 2010)
Ph.D. Student, Pennsylvania State University

Irene Soria, M.S. (UF 2010)
Civil Engineer, Illinois Department of Transportation

Lihui Zhang, Ph.D. (UF 2010)
Assistant Professor, Dalian University of Technology, China

Qipeng Phil Zheng, Ph.D.,
Assistant Professor, Department of Industrial and Management Systems Engineering, West Virginia

Xiaoyu Zhu, Ph.D. (UF 2011)
Post-Doctoral Researcher, University of Florida
Other Student Awards

Ori Baber, 1st place poster; Investigation into the Inhalation Toxicity of Constituents of Automobile Exhaust using an Innovated in-vitro Exposure Technique; CMS Student Conference, University of Florida; Gainesville, Fla.; March 2011.

Brett Fuller, Clark Letter, Phillip Haas and Jorge Uy, third place; Grand Championship, ITE International Collegiate Traffic Bowl; Aug. 11, 2010; Vancouver.

Brett Fuller, Phillip Haas, George Uy; FSITE Traffic Bowl, District Champions, June, 2010.

Brett Fuller, 2nd place poster; Integration of Toll Plaza Analysis into CORSIM; CMS Student Conference, University of Florida; Gainesville, Fla., March 2011.

Miguel Lugo, Phillip Haas, Alex Kribbs; FSITE Traffic Bowl, District Champions, June, 2011.


Dimitra Michalaka, 2010-2011, WTS Central Florida Chapter, Frankee Hellinger Graduate Scholarship; Orlando, Fla., February 2011.

Dimitra Michalaka, Gator Engineering Attribute Graduate Student Award for Leadership, 2011.

Dimitra Michalaka, ARTBA Future Industry Spotlight Award, September 2011.

Dimitra Michalaka, 1st place poster; Enhancing CORSIM for Simulating High Occupancy/Toll Lane Operations; Transportation and Expressway Authority Membership Florida (TEAMFL); Miami, October 2010.

Dimitra Michalaka, 3rd place, presentation; Enhancing CORSIM for Simulating High Occupancy/Toll Lanes Operations; CMS Student Conference, University of Florida; Gainesville, Fla., March 2011.

Ly Nguyen, 2011 WTS Central Florida Chapter Frankee Hellinger Leadership Undergraduate Scholarship; Orlando, Fla., February 2011.

Ziqi Song, Research in Science Award, poster; Comparison of Capacities of High-Occupancy-Vehicle and General Purpose Lanes; National Science Foundation Research Day, University of Florida; Gainesville, Fla., October 2010.

Ruoniu (Vince) Wang, 2nd place, presentation; Measuring Urban Form and Examining Its Relationship to Traffic Congestion in Florida; CMS Student Conference, University of Florida; Gainesville, Fla., March 2011.

Yanning Wang, Research Excellence Award; College of Public Health and Health Professions (PHHP) Research Day, March 2011.

Yanning Wang, 1st place, presentation; Validity and Usability of a Safe-Driving Behavior Measure for Older Adults: Strategy for Congestion Mitigation; CMS Student Conference, University of Florida; Gainesville, Fla., March 2011.

Di Wu and Ashish Kulshrestha, 3rd place poster; Impacts of Dynamic Pricing on Managed Lane Operations; Transportation and Expressway Authority Membership Florida (TEAMFL); Miami, Fla., October 2010.
The UF ITE student chapter won the 2011 District 10 Traffic Bowl this year. The chapter is now a two-time defending champion having won the District 10 bowl last year.

The UF ITE student chapter continues to be active with 36 members. Members support and attend a variety of activities and events that include: transportation seminars, conferences (FSITE Summer Meeting, ITE Annual Conference, TRB, CMS Annual Student Conference, UFITE Socials and Bowling Nights, and the Annual TRC/CMS/ITE/WTS Picnic). The student chapter is currently involved in a safety study on Hull Road in Gainesville, Fla., in conjunction with the University of Florida. Students are conducting spot-speed and yield-to-pedestrian compliance studies to determine the pedestrian safety issues that exist along this road. Upon collection and analysis of preliminary data, traffic control devices designed to improve pedestrian safety will be installed. The study will be repeated at two and three months after the installation of the new device to determine its effectiveness.

Members of the WTS have attended conferences, planned activities, set agendas for future projects and recruited members. Seven students joined the chapter as of January 2011, and new officers were elected.

Key activities this semester included a trip to the 90th Annual Meeting of the Transportation Research Board (TRB) in Washington, D.C., by graduate students Dimitra Michalaka, Zhuofei Li and Cuie Lu. Michalaka and Lu also presented research papers at TRB. Michalaka, along with Li, attended the WTS International reception, which was held during TRB at the Marriott Wardman Park hotel. This was a great networking opportunity for the students. In April, the chapter mobilized to host a Resume Development and Interview Workshop. The event was very well attended, and included a three-hour fundraiser event at Red Mango, a local frozen yogurt company, which agreed to donate 10 percent of sales to the student chapter.

High on the student chapter’s agenda for this year was and continues to be the WTS/U.S. Department of Transportation (U.S.DOT) Transportation You program, an outreach action plan for girls ages 13 to 18. This effort is being led by Leslie Washburn, P.E., CMS’ workforce development coordinator. An action plan has been submitted to WTS International, including the WTS/U.S. DOT partnership application. The WTS UF student chapter has teamed up with Washburn and will assist her with other activities related to K-12 education. To find more about WTS UF Student Chapter, go to Facebook and search for WTS UF Student Chapter (URL http://www.facebook.com/pages/WTS-UF-Student-Chapter/197365740303159) or visit the chapter website at https://sites.google.com/site/wtsufstudentchapter/
In spring 2011, the CMS created a workforce development position to direct activities and programs that motivate the next generation of transportation students. The CMS hired Leslie Washburn, P.E., for the LEGO® Robot grant as the Workforce Development Coordinator. Work began on the grant for the LEGO® Robot Vehicle Lesson Plans for Secondary Education – A Recruitment Tool. The location for the pilot next year has been solidified, and the teacher is under contract to provide technical review. The course outline draft is complete and under review. The first lesson plan is in development.

The CMS began its initiative by creating an action plan and submitting a partnership application through the WTS/U.S. DOT “Transportation You” program. Leslie Washburn is the coordinator of this program.

The CMS has committed sponsorship to a National Transportation Workforce Summit, and Leslie Washburn is participating in the planning and steering committees related to the summit to be held spring 2012.

The CMS, with assistance from the WTS student chapter, responded to the WTS/USDOT Girl’s STEM Initiative, Transportation YOU, and developed an outreach action plan for 13- to 18-year-old girls. The chapter is in the process of developing outreach tools for implementation for the upcoming school year.

LEGO® MINDSTORMS® robots are a great way to promote science, technology, engineering, and math to grade school students.

Two students at the 2011 Summer Robotics Camp in Brandon, Fla., work to program a LEGO® MINDSTORMS® robot.
Distinguished Academic Lecturer Seminar Series

Elizabeth Deakin, professor of city and regional planning and urban design at the University of California, Berkeley, was the CMS’ Distinguished Academic Lecturer on Nov. 29, 2010. Deakin’s presentation was titled “California’s New Initiatives to Manage Growth and Reduce Environmental Impacts.” The seminar was held at the UF College of Design, Construction and Planning and offered as a live webcast via Elluminate.

Deakin spoke about the recently enacted legislation that mandates the reduction of greenhouse gasses, the creation of new transportation fuels and more efficient vehicles, and called upon metropolitan regions and local governments to develop “Sustainable Community Strategies.” For an online video of Deakin’s presentation and her bio, visit http://cms.ce.ufl.edu/news_events/distinguished_lecturer_seminar_series.php.

Distinguished Professional Lecturer Seminar Series

Jana Lynott was the CMS’ Distinguished Professional Lecturer on April 7, 2011. Lynott is a senior strategic policy adviser with the Transportation and Livable Communities of the Public Policy Institute at the American Association of Retired Persons, or AARP. Her presentation concentrated on the considerations that policymakers, planners, engineers and regular citizens need to make for an aging population. “In the next 20 years,” she says, “the United States will see an 80 percent increase in the population ages 65 and older — a demographic change so profound that every profession in America will be affected.” During her talk, she focused on road design and how planners and engineers must work together to create streets for a variety of users. She also described a concept known as “complete streets,” which she says many communities in the U.S. are now embracing. Complete streets addresses the needs of older road users and how those needs are balance with other users such as cyclists and pedestrians.

The presentation was held as a live webcast via Elluminate. For more information, go to: http://cms.ce.ufl.edu/news_events/distinguished_lecturer_seminar_series.php

U.S. DOT University Research Technology Transfer Day, April 6, 2011

The traffic data warehouse, STEWARD, partially funded by the CMS, was one of 25 projects chosen among 60 University Transportation Centers in the United States to take part in the U.S. Department of Transportation’s (U.S. DOT) University Research Technology Transfer Day at their headquarters in Washington, D.C. Vipul Modi, a senior transportation engineer working with the CMS, and Ines Aviles-Spadoni, the CMS’ coordinator, attended the event and networked with individuals from the government and academic sectors. STEWARD is a database that collects raw traffic data coming in from ITS detectors on Florida’s roadways through traffic management centers. STEWARD processes the raw data and makes them available in various report formats to practitioners. The STEWARD database can be accessed at http://cce-trc-cdwserv.ce.ufl.edu/steward/index.html.
CMS Student Conference

On March 4, 2011, the CMS showcased the latest in transportation-related research conducted by graduate students at the University of Florida. Students from the departments of Civil & Coastal Engineering, Industrial & Systems Engineering, Urban & Regional Planning, Occupational Therapy, Environmental Engineering and other related discipline areas attended the CMS Student Conference and presented papers or posters. The annual conference is free and open to transportation professionals in academia and in the private and government sectors. Awards are given to students for outstanding presentations and posters. This year, students from the departments of Epidemiology, Civil & Coastal Engineering and Urban & Regional Planning won awards for presentations. Students from environmental engineering and civil and coastal engineering won awards for posters. The judges presiding over the awards selection were members of the CMS’ External Advisory Board. The CMS Annual Student Conference is held in conjunction with the center’s External Advisory Board meeting. For more information, visit: http://cms.ce.ufl.edu/news_events/2011_student_conference.php

Presentations

Dimitra Michalaka - Civil & Coastal Engineering (Ph.D. Student)
Topic: Enhancing CORSIM for Simulating High Occupancy Toll Lanes Operations

Cuie Lu - Civil & Coastal Engineering (Ph.D. Student)
Topic: An Investigation of Freeway Capacity before and during Incidents

Dincer Konur - Industrial & Systems Engineering (Ph.D. student)
Topic: Impacts of Efficient Transportation Capacity Utilization via Multi-Product Consolidation on Transportation Network Usage and Congestion

Yanning Wang - Epidemiology (Ph.D. Student)
Topic: Validity and Usability of a Safe Driving Behavior Measure for Older Adults: Strategy for Congestion Mitigation

Roosbeh Nowrouzian - Civil & Coastal Engineering (Ph.D. Student)
Topic: Tour Generation Models for Florida: Intra-household Interdependencies and Spatial Transferability

Vince Wang - Urban & Regional Planning (Ph.D. Student)
Topic: Measuring Urban Form and Examining Its Relationship to Traffic Congestion in Florida

Hyungchul Chung & Jeongseob Kim - Urban & Regional Planning (Ph.D. Students)
Topic: The Effects of Impact Fees in Urban Form and Congestion in Florida

Shanti Rarchmat - Urban & Regional Planning (Ph.D. Student)
Topic: Mismatch in Demand and Supply in Parking and Empirical Spatial Study in Downtown Miami

Poster Session

Ori Baber - Environmental Engineering (Ph.D. Student)
Topic: Investigation into the Inhalation Toxicity of Constituents of Automobile Exhaust using an Innovated In-vitro Exposure Technique

Brett Fuller - Civil & Coastal Engineering (M.S. Student)
Topic: Integration of Toll Plaza Analysis into CORSIM

Fang He & Xiao Chen - Industrial & Systems Engineering (Ph.D. Students)
Topic: Effective and Efficient Deployment of Dynamic Message Signs to Display Travel Time Information

Yunseok Im - Environmental Engineering (M.S. Student)
Topic: Modeling Secondary Organic Aerosol Formation from Aromatic Compounds

Clark Letter - Civil & Coastal Engineering (M.S. Student)
Topic: A Framework for Simulating Variable Speedlimits in CORSIM

Kwangkyun Lim - Civil & Coastal Engineering (Ph.D. Student)
Topic: A Comparative Analysis of Alternate Econometric Structures for Trip-Generation Models

Suwan Shen - Urban & Regional Planning (Ph.D. Student)
Topic: Impact Analysis of Changing Riverine Flood Frequencies Caused by Climate Change on Transportation Infrastructure and Land Use

Chrysalis Vogiatis - Industrial & Systems Engineering (Ph.D. Student)
Topic: Multimodal Transportation Educational Virtual Appliance - Extensions and Enhancements
Technology Transfer

2011 CORSIM Workshop

More than 40 transportation professionals attended the CORSIM Workshop in early August, which was held in the Royal Plaza Hotel at the Walt Disney World Resort in Orlando, Fla. The workshop was developed for CORSIM users and sponsored by the Transportation Research Center, the CMS and McTrans. Participants learned about the recently added features to the simulation software (two-lane highways, toll plazas, HOT lanes, HCS Streets and T-7F interoperability), the advanced analysis capabilities (roundabouts, work zones, freeway queue measurement, lane utilization and lane selections, truck exit percentages, emergency vehicles and signal pre-emption, runtime extensions), comparing CORSIM results to those in the Highway Capacity Manual, guidelines for applying CORSIM to FDOT project analysis, and future plans for the software.

Six professional development hours (PDHs) were offered for attending. Workshop presenters included Ken Courage, University of Florida; Lily Elefteriadou, University of Florida; David Hale, University of Florida, Bill Sampson, University of Florida; Scott Washburn, University of Florida; and graduate students Clark Letter, Dimitra Michalaka, and Robin Osborne.

Inaugural Transportation Science & Logistics Workshop

The inaugural Transportation Science and Logistics Workshop was held June 26-29, 2011, at the Asilomar Conference Grounds in Pacific Grove, Calif. The workshop was co-sponsored by the Center for Multimodal Solutions for Congestion Mitigation. The topic of the workshop was congestion management as it relates to transportation systems on the ground and air. Congestion management is of great interest and importance to the transportation planners and government policymakers around the world. Workshop organizers were: Michael Ball, University of Maryland; Michael Florian, INRO and the Université de Montréal; and Toi Lawphongpanich, University of Florida. The purpose of the workshop was to provide the opportunity to discuss and create opportunities for collaboration among academics and practitioners in the areas of ground and air transportation.
Transportation Seminar Series

Summer 2010
An Investigation of Capacity Before and During Incidents; Cuie Lu, July 29.
Mitigating Traffic Congestion - The Role of Demand-Side Strategies; Dimitra Michalaka, July 15.
Comparison of Traffic Impact Analysis Methods for Proposed Developments; Mohammed S. Mamun, July 8.
Evaluating the Impacts of Advanced Driver Assistance Systems Using a Driving Simulator; Presenter 1: Barbara Martin, July 1;
Changes in CORSIM to Accommodate Toll Plaza Simulation; Presenter 2: Brett Fuller, July 1.

Fall 2010
Life In the Fast Lane: Adventures of a Traffic/Transportation Engineer; Terrel Shaw, HNTB, Sept. 23.
How to Be Prepared for Crisis in the Tourism Industry; Lori Pennington-Gray, Ph.D.; UF, Sept. 30.
Regional Transportation: Current and Future Plans; Mike Blaylock, Jacksonville Transportation Authority, Oct. 14.
Hazards to Transportation Networks Posed by Tropical Cyclones; Corene Matyas, Ph.D.; UF, Oct. 28.
Spatial Network Databases as a Data Foundation for Transportation Systems and Analysis; Markus Schneider, Ph.D.; UF, Nov. 16.
The Economic Cost of Traffic Congestion in Florida; Andres Blanco, Ph.D.; UF, Nov. 18.
California's New Initiatives to Manage Growth and Reduce Environmental Impacts; Elizabeth Deakin, Ph.D.; UC Berkeley, Nov. 29 (Eluminate, live webcast).
A Multidisciplinary Approach to Study Driving under Different Conditions: Workload, Fatigue and Drug Effects; Adi Ronen, Ph.D.; Ben-Gurion, University of the Negev, Israel, Nov. 30.

Spring 2011
Transportation, Environment, and Energy Systems from Transportation Emissions Control to Public Health: Are We Doing the Right Thing, and Doing it Right? Oliver Gao, Ph.D.; Cornell University, Jan. 18.
Candrive Project: The Challenges of Using In-Vehicle Monitoring Devices to Record the Driving Patterns of Hundreds of Older Drivers over Several Years; Michelle Porter, Ph.D.; professor, University of Manitoba, Jan. 31.
How are state DOTs going to pay for future transportation investments? A Comparative Review of Alternative Road User Financing Approaches; John Collura, Ph.D.; University of Massachusetts (Amherst), Feb. 10.
Activity-Based Models in Practice; Joel Freedman; Parsons Brinkerhoff Inc., March 17.
Analysis of Annual, Long-Distance, Vacation Travel Demand in the United States: A Multiple Discrete-Continuous Choice Framework; Abdul Pinjari, Ph.D.; University of South Florida, March 17.
Livable Communities for All Ages: Balancing Needs through the Design of the Road Environment, Distinguished Professional Lecturer Seminar; Jana Lynott, AICP; AARP, April 17.
Use of VISSIM in Practice; Thirulokesh Krishnan, P.E.; ATKINS, April 14.

Summer 2011
Calibration of HSM for Florida Conditions; Phillip Haas and Nagendra Dhakar; May 27.
Multimodal Transportation Educational Virtual Appliance: Extensions and Advancements; Chrysafis Vogiatzis; June 2.
Maximizing the Traffic Efficiency of Turn Bays at a Signalized Intersection Approach; Zhoufei Li; June 9.
Design of More Equitable Congestion Pricing Schemes; Di Wu; June 16.
Robust Evacuation Planning Under Uncertainty; Ashish Kulshrestha; June 23.
Effective and Efficient Deployment of Dynamic Message Signs to Display Travel Time Information; He Fang “Jerry;” June 30.

Electronic Delivery of Graduate Education (EDGE)

CMS-affiliated faculty members teach courses through the College of Engineering’s EDGE program. Courses taught via distance education include Traffic Flow Theory, or TTE 6267, and Traffic Engineering, or TTE 5256. This year, a new course was added: Highway Capacity Analysis, or CGN 6905.
The EDGE program is UF’s distance learning provider in the College of Engineering. The program allows full-time working professionals around the world the opportunity to earn a master’s degree and graduate certificates. Courses are recorded in studio classrooms at the UF campus. For more information, visit http://www.ufedge.ufl.edu/
CMS Affiliated Departments & Centers

The section below contains academic units and centers at the University of Florida affiliated with the CMS.

The Engineering School of Sustainable Infrastructure and Environment (ESSIE)
http://www.ce.ufl.edu/

Kirk Hatfield, Ph.D.
School Director & Professor
Kenneth Courage, P. Eng.
Professor Emeritus (Transportation)
Reynaldo Roque, Ph.D., P.E.
Professor (Transportation)
Janet Degner, M.S.
T² Co-Director (Transportation)
Bill Sampson, M.S., P.E.
McTrans Director (Transportation)
Lily Elefteriadou, Ph.D.
Professor CMS/TRC Director (Transportation)
Peter Sheng, Ph.D.
Professor (Coastal Engineering)
Ralph Ellis, Ph.D.
Professor (Construction Engineering)
Fazil Najafi, Ph.D.
Professor (Transportation)
David Hale, Ph.D.
Assistant In Engineering- McTrans (Transportation)
Siva Srinivasan, Ph.D.
Associate Professor (Transportation)
Dennis Hiltunen, Ph.D.
Associate Professor (Geotechnical Engineering)
Yafeng Yin, Ph.D.
Associate Professor (Transportation)
Myoseon Jang, Ph.D.
Associate Professor (Transportation)
Scott Washburn, Ph.D., P.E.
Associate Professor (Transportation)

College of Engineering Administration
Cammy R. Abernathy, Ph.D.
Dean College of Engineering
David P. Norton, Ph.D.
Associate Dean Office of Research & Graduate Programs
Mark Law, Ph.D.
Associate Dean Office of Academic Affairs
Angela S. Lindner, Ph.D.
Associate Dean Division of Student Affairs

Transportation Research Center (TRC)
http://trc.ce.ufl.edu/
Director: Lily Elefteriadou, Ph.D.

Center for Microcomputers in Transportation (McTrans Center)
http://mctrans.ce.ufl.edu/
Director: Bill Sampson, M.S., P.E.

Florida Transportation Technology Transfer (T²) Center
http://t2.ce.ufl.edu/
Director: Janet Degner, M.S.

Department of Computer & Information Science & Engineering
Paul Fishwick, Ph.D.
Professor
Ahmed Helmy, Ph.D.
Associate Professor Director of the Wireless Networking Lab
Sanjay Ranka, Ph.D.
Professor
Markus Schneider, Ph.D.
Associate Professor

Department of Economics
Warrington College of Business
Chunrong Ai, Ph.D.
Professor
David Denslow, Ph.D.
Professor & Research Economist

Department of Industrial & Systems Engineering
http://www.ise.ufl.edu/
Department Chair: Joseph C. Hartman, Ph.D.
Associate Department Chair: Joseph Geunes, Ph.D.
Ravindra Ahuja, Ph.D.
Professor
Farid AitShahlia, Ph.D.
Assistant Professor
Donald W. Hearn, Ph.D.
Professor Emeritus
Vladimir Boginski, Ph.D.
Visiting Assistant Professor
Siriphong Lawphongpanich (Toi), Ph.D.
Associate Professor
Joseph Geunes, Ph.D.
Associate Professor, Associate Chair
Panos Pardalos, Ph.D.
Distinguished Professor
Yongpei Guan, Ph.D.
Assistant Professor
J. Cole Smith, Ph.D.
Associate Professor

Supply Chain and Logistics Engineering Center
http://www.ise.ufl.edu/scale/
Co-Directors: Ravindra Ahuja, Ph.D. and Joseph Geunes, Ph.D.

Center for Applied Optimization (CAO)
http://www.ise.ufl.edu/cao
Co-Directors: Panos Pardalos, Ph.D. and William Hager, Ph.D. (Department of Mathematics)

Department of Mechanical & Aerospace Engineering (MAE)
Richard C. Lind, Jr., Ph.D.
Associate Professor
Department of Tourism, Recreation, & Sport Management
Center for Tourism Research & Development
Lori Pennington-Gray, Ph.D.
Associate Professor, Associate Director
Brijesh Thapa, Ph.D.
Associate Professor
Professor Emeritus

Department of Urban & Regional Planning
http://www.dcp.ufl.edu/urp/

Department Chair: Zhong-Ren Peng, Ph.D.
Andres Blanco, Ph.D.
Assistant Professor
Ruth Steiner, Ph.D.
Associate Professor
Ilir Bejleri, Ph.D.
Associate Professor
Paul Zwick, Ph.D.
Professor, Associate Dean
Research & Graduate Programs
College of Design, Construction & Planning
Urban & Regional Planning
Zhong-Ren Peng, Ph.D.
Professor, Chair

Center for Health and the Built Environment (CHBE)
Director: Ruth Steiner, Ph.D.

Florida Traffic & Bicycle Safety Education Program
http://www.hhp.ufl.edu/safety/index.shtml
Director: Dan Connaughton, Ed.D.
Assistant Director: John Egberts

Geo-Facilities Planning and Information Research Center
http://www.geoplan.ufl.edu/
Director: Paul Zwick, Ph.D.

Occupational Therapy
Institute for Mobility, Activity and Participation (I-MAP)
http://mobility.phhp.ufl.edu/
Director: Sherrilene Classen, Ph.D., MPH, OTR/L

National Older Driver Research and Training Center (NORDTC)
http://driving.phhp.ufl.edu/
Director: Sherrilene Classen, Ph.D., MPH, OTR/L, Associate Professor, Occupational Therapy
Orit Shechtman, Ph.D., OTR/L
Associate Professor, Occupational Therapy
William C. Mann, OTR/L, Ph.D.
Professor, Occupational Therapy

Public Utility Research Center
Mr. Theodore J. (Ted) Kury
Director of Energy Studies
Warrington College of Business Administration

Rinker School of Building Construction
Abdol Chini, Ph.D., P.E.
Professor, Director

School of Architecture
Ruth Ron, Ph.D.
Assistant Professor
Contemporary Technologies

School of Forest Resources and Conservation
Janaki Alavalapati, Ph.D.
Professor
Forest Resource Economics and Policy

Amr Abd-Elrahman, Ph.D.
Assistant Professor
Geomatics Program

Hartwig Hochmair, Ph.D.
Assistant Professor
Geomatics Program

Ahmed Mohamed, Ph.D.
Assistant Professor
Geomatics Program

UF/Office of Research
Win Phillips, Ph.D.
Vice President for Research
CMS newsletters and annual reports are designed to disseminate information related to all research, education and technology transfer activities at the center. Newsletters are posted online at [http://cms.ce.ufl.edu/publications/newsletter.php](http://cms.ce.ufl.edu/publications/newsletter.php), and annual reports are posted at [http://cms.ce.ufl.edu/publications/](http://cms.ce.ufl.edu/publications/). Printed copies are also available.
Selected Publications & Presentations

Publications


Kondyli, A., L. Elefteriadou, Driver Behavior at Freeway-Ramp Merging Areas, 5th International Congress on Transportation Research, Volos, Greece, pp. 1014-1032, September 2010.


Lim, K.,(*) and Srinivasan, S. A Comparative Analysis of Alternate Econometric Structures for Trip Generation Models, accepted for publication in the Transportation Research Record. (2011.)


McDonald, N. C., Steiner, R. L., Cunningham, K., Delarco, L. R., Edgecombe, R., Kain, J., Kruljac, S. E., and Wells, C., Safe Routes to School: State Program Summaries. (2011.)


Sun, D. and Elefteriadou L. Lane Changing Behavior on Urban Streets: A Focus-Group Based Study. Accepted for publication and presented at the Transportation Research Board annual Meeting, Washington, D.C., January 2011.


Zhu, X. (*) and Srinivasan, S. Modeling Occupant-level Injury Severity: An Application to Large-Truck Crashes, accepted for publication in Accident Analysis and Prevention. (2011.)

Presentations


