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 (USDOT) 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, since it considers the transportation system in its entirety rather than one or more independent parts.
I am very pleased to share with you this report which provides an overview of activities conducted during the CMS’ second year of operation. Over the past 12 months, the center coordinated yet another call for proposals, which yielded a total of six newly funded research projects for 2008-2009. Since its inception in 2007, the center has funded a total of 13 projects that are currently underway. The first round of projects are about to be completed with draft final reports currently under review. We expect the results of that work to be published in various journals and presented at conferences in the coming year. Watch our Web site for postings of final reports as projects are completed.

In addition to the aforementioned research, this year the center picked-up seven match projects from the Florida Department of Transportation (FDOT) for a grand total of 11 match projects to-date. The CMS faculty and staff are continuing to work with FDOT, our major partner, to advance the state of the art in transportation and congestion mitigation and to disseminate these research results to the professional community.

The total number of graduate students enrolled in transportation-related advanced degree programs has risen to 69, an increase of more than 20 percent over last year. The concurrent degree program with the Department of Urban & Regional Planning has begun to attract new students, and one of the first students to have joined this program, Benito Perez, graduated in spring of this year and is now working for the Hampton Roads Metropolitan Planning Organization in Chesapeake, Va. For this coming academic year, the CMS has also attracted students from other departments (Industrial & Systems Engineering and Computer & Information Science & Engineering) who are interested in concurrent degrees in transportation.

Our undergraduate summer internship program this year was once again very successful with four undergraduate students chosen out of a total of 19 applicants. These four students worked under the mentorship of a faculty advisor on a specific research project. They attended weekly seminars on various topics and presented their work at the end of the summer to transportation faculty and graduate students.

This past year the CMS sponsored or co-sponsored a total of 26 seminars (an increase of more than 60 percent over last year’s numbers) which were attended by faculty, students, and other professionals. A symposium on congestion mitigation strategies was organized in November of last year, where U.S. Congressman John L. Mica (R-Fla.), Linda Watson, CEO of LYNX, and C. David Brown II of Broad and Cassel spoke on transportation and congestion-related issues to UF faculty, students, and staff. Our Annual Student Conference that was held at the beginning of this year was also a success, with various students presenting work related to their CMS projects. For additional information on streaming videos of previous seminars and upcoming events, please visit our Web site at http://cms.ce.ufl.edu/.

I am looking forward to another busy and challenging year. As we move forward to advance the transportation state-of-the-art, we will work to engage researchers and practitioners alike on pressing issues related to congestion mitigation and toward building more sustainable, environmentally-friendly communities.

Sincerely,

Lily Elefteriadou, Ph.D.
CMS Director
CMS Timeline 2008-2009

- Second call for proposals issued, September 2008
- Installment of see-through signal controller cabinet on University of Florida (UF) campus, joint project with City of Gainesville traffic engineer and M.S. student Matt Weisman, October 2008
- CMS holds information sessions at UF and Rose-Hulman Institute of Technology, Terre Haute, Ind., November 2008
- Ph.D. student Alexandra Kondyli wins Best Student Poster, and M.S. students Ashish Kulshrestha and Abigail Osei-Asamoah win Second Place at the TRANSPO Student Poster Competition, Orlando, Fla., fall 2008
- First Congestion Mitigation Symposium featuring U.S. Congressman John Mica (R., Fla.), November 2008
- CMS invites Mike Meyer, Ph.D., from the Georgia Institute of Technology as its fall Distinguished Lecturer (webcast seminar), November 2008
- Third CMS newsletter published, December 2008
- CMS co-hosts the UF reception during the 88th Annual Meeting of the Transportation Research Board in Washington, D.C., January 2009

- M.S. student Aaron Elias wins CMS Student of the Year Award, CUTC Awards Banquet, January 2009
- Abishek Komma, M.S., wins Wootan Award for Outstanding M.S. Thesis in Policy & Planning, CUTC Awards Banquet, January 2009
- Second year projects selected and awarded, February 2009
- Second meeting of the CMS External Advisory Board (EAB), March 2009
- CMS invites Genevieve Giuliano, Ph.D., Director of METRANS, University of Southern California, School of Policy, Planning and Development as its spring Distinguished Lecturer (webcast seminar), March 2009
- Second Annual Student Conference, March 2009
- First USDOT/RITA site visit to the CMS, March 2009
- Second group of transportation interns begin work at the CMS, May 2009
- Fourth CMS newsletter published, May 2009

Performance Indicators

- Number of pre-proposals received: 13
- Number of research projects funded: 6
- Amount of CMS funds awarded to research projects this year: $499,402
- Number of FDOT matching projects this year: 7
- Amount funded by FDOT to meet matching requirements this year: $984,389
- Number of FDOT matching projects to-date: 11
- Matching funds provided by FDOT to-date: $1,334,994
- Total number of ongoing CMS funded projects: 13
- Number of UF colleges working with the CMS: 6
- Number of external peer reviewers for this year’s competition: 22
- Number of UF centers affiliated with the CMS: 12
- Number of students enrolled in transportation-related advanced degree programs: 69
- Number of graduate students involved in transportation-related projects: 53
- Number of transportation-affiliated graduate students who have earned their degrees this year: 15
- Number of undergraduate students involved in transportation-related projects: 13
- Number of transportation seminars sponsored by the CMS: 26
- Number of transportation courses taught by CMS faculty and staff: 33
- Number of visiting scholars in residence this past year: 3
Lily Elefteriadou, Ph.D.
CMS Director

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

Dianne Bryant, B.S.
CCE Administrator

Candace Leggett
CMS Assistant

Sharon Henry, B.S.
Grants Assistant

Doretha Ray
Office Assistant

Center-Affiliated Staff

Nancy McIlrath-Glanville, M.A.
Academic Services Coordinator

Dona Moss
Grants Specialist

Carolyn Carpenter, B.S.
Administrative Assistant

Tony Murphy
Computer Support

Debora Hambrick
Senior Fiscal Assistant

Lucy Hamm
Senior Fiscal Assistant
**Organizational Chart**

**Department of Civil & Coastal Engineering (CCE)**

- Transportation Research Center (TRC)
- McTRANS
- Florida T² Center

**CMS**

**Internal Steering Committee (ISC)**

**External Advisory Board (EAB)**

- Center for Applied Optimization (CAO)
- Center for Health and the Built Environment
- Florida Bicycle Safety Educational Program
- GeoPlan Center
- Industrial & Systems Engineering (ISE)
- Institute for Mobility, Activity and Participation (I-MAP)
- National Older Driver Research & Training Center (NODRTC)
- Occupational Therapy (OT)
- Supply Chain Center
- Department of Urban & Regional Planning (URP)
The role of the External Advisory Board (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.

Our board members represent a wide-range of sectors such as the Florida Department of Transportation, the U.S. Department of Transportation, the Federal Highway Administration (FHWA), academia, local government and private industry. In 2009, two new members were added to the board: Elizabeth Birriel, Deputy State Traffic Operations Engineer at FDOT, and Linda Watson, CEO of LYNX, the public transportation authority serving the Orange, Osceola and Seminole counties in Florida.

The second meeting of the EAB took place in March 2009. The board provided the CMS with excellent feedback and provided recommendations related to future research directions as well as student preparation and activities.

**Advisory Board Members**

- **Elizabeth Birriel, P.E.**
  Deputy State Traffic Operations Engineer
  Florida Department of Transportation

- **Tamara Christion**
  Transportation Planner
  Federal Highway Administration

- **Max Crumit, P.E.**
  Executive Vice President
  PBS&J

- **Genevieve Giuliano, Ph.D.**
  Senior Associate Dean
  Research and Technology
  University of Southern California
  School of Policy, Planning and Development

- **Mark Hallenbeck**
  Director
  Washington State Transportation Center (TRAC)

- **Laura Kelley**
  Deputy Director
  Finance, Administration and Planning
  Orlando-Orange County Expressway Authority

- **Wayne Kittelson, P.E.**
  Principal
  Kittelson & Associates, Inc.

- **Richard Long**
  Director of Research
  Florida Department of Transportation

- **Ananth Prasad, P.E.**
  DOT Market Sector Leader
  HNTB Corporation

- **Debora M. Rivera, P.E.**
  Director of Transportation Operations
  Florida Department of Transportation
  District Six

- **Teresa Scott, P.E.**
  Director of Public Works
  City of Gainesville

- **Linda Watson**
  Chief Executive Officer
  LYNX (Central Florida Regional Transportation Authority)
The center’s Internal Steering Committee (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) and includes the center staff and representatives from transportation-related centers at the University of Florida. The main goal of the ISC is to develop, implement and guide CMS activities, manage its resources and ensure that objectives are being met. The ISC meets once every month.
Chart 1, above, represents funds expended for the 2008-2009 fiscal year. Research accounted for more than half of the center’s expenses with 55 percent spent for a total of six projects awarded. Funding for Education and Outreach was 14 percent and 9 percent, respectively, with 6 percent spent on the general administrative functions of the center. Unspent funds accounted for 16 percent of the budget.

Chart 2, below, represents funds allocated for FY 2008-2009 by source (federal and state). Federal funds accounted for 48 percent of the center’s funding and state funds account for 52 percent. The CMS’s state funds come from the Florida Department of Transportation (FDOT), which has committed to match the USDOT/RITA grant.
"This project is an excellent example of a partnership of a university with a state DOT. Data from the Central Data Warehouse will enhance the ability of the CMS to conduct productive research on transportation management and control systems. It will also provide operating agencies with an important resource for periodic reporting and decision support."

Kenneth Courage, P.E., Professor Emeritus
CMS Project 2008-001
Central Data Warehouse Configuration
Data Analysis for Congestion Mitigation Studies

"CMS funding has enabled us to work on characterizing how traffic congestion-related costs affect the locations that competitive firms choose for facilities when designing their supply chain infrastructure."

Joseph Geunes, Ph.D.
CMS Project 2008-004
Characterizing the Tradeoffs and Costs Associated with Transportation Congestion in Supply Chains

"The results of this project will enable significant progress to be made on the analysis of two-lane highways, particularly those that include occasional signalized intersections."

Scott Washburn, Ph.D.
CMS Project 2008-002
Development of Simulation Program for Two-Lane Highway Analysis
“Funding from CMS has allowed me to present the findings of an intersection design study at the annual 2009 M-CASTL [a Tier-1 University Transportation Center at the University of Michigan] Transportation Research and Education Conference in Ann Arbor, Mich.”

**Sherrilene Classen, Ph.D.**
CMS Internal Steering Committee Member

“Funding from CMS allows us to develop methodologies for determining congestion pricing schemes in multimodal settings that are more appealing to the public, thus more likely to be accepted and implemented.”

**Siriphong “Toi” Lawphongpanich, Ph.D.**
CMS Project 2008-006
A Pricing Approach for Mitigating Congestion in Multimodal Transportation Systems
CMS Project 2009-006
Innovations in Pricing of Transportation Systems: Theory and Practice Congestion

“Our project will result in a new and practical approach to generating traffic signal timings, which will provide motorists more reliable travel times.”

**Yafeng Yin, Ph.D.**
CMS Project 2008-003
Simulation-Based Robust Optimization for Actuated Signal Timing and Setting


## CMS-Funded Projects

Research at the CMS is conducted by a multidisciplinary group of faculty working together to develop methods that will mitigate congestion problems both nationally and internationally. Some specific areas of research in congestion mitigation include traffic operations, congestion pricing and transportation and land use planning. The multidisciplinary nature of the CMS allows it to utilize valuable expertise in subject areas such as demand modeling, urban planning, traffic flow theory and systems analysis, as well as statistics, optimization, simulation and computer methods.

The CMS employs a rigorous, multi-step, peer-reviewed research selection process which 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 and 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 USDOT.

Final reports and any other publications generated from these projects will be posted on the CMS Web site at [http://cms.ce.ufl.edu/research/completed_projects.php](http://cms.ce.ufl.edu/research/completed_projects.php). Quarterly reports continue to be collected on all 2008 projects and are reviewed to ensure that each project is progressing as planned.

In fall 2008, the CMS issued its second call for pre-proposals for the new 2009-2010 project season. Out of 13 pre-proposals submitted, eight were invited to proceed to the full proposal stage. After evaluating the results of the external reviews, the CMS selected six projects for funding with a total of $499,402 in grants awarded.

The Florida Department of Transportation has partnered with the CMS to provide matching funds for the center. Since the center’s inception, it has been awarded a total of 11 FDOT match-projects worth $1,334,994. A list of CMS and FDOT-funded projects appear in the following pages.

### 2009 Projects

#### Innovations in Pricing of Transportation Systems: Theory and Practice (CMS Project # 2009-004)
- **PI:** Siriphong “Toi” Lawphongpanich, Ph.D. (ISE)
- **Co-Investigators:** Janet Degner, M.S. (T³);
  Yafeng Yin, Ph.D. (CCE)
- **Amount Awarded:** $70,729
- **Project Start Date:** February 1, 2009

#### Using Microsimulation to Evaluate the Effects of Advanced Vehicle Technologies on Congestion (CMS Project # 2009-006)
- **PI:** Lily Elefteriadou, Ph.D. (CCE)
- **Co-Investigators:** David Hale, Ph.D. (McTrans);
  Tom Zimmerman (McTrans)
- **Amount Awarded:** $100,000
- **Project Start Date:** February 1, 2009

#### Tour Generation Models for Florida (CMS Project # 2009-008)
- **PI:** Siva Srinivasan, Ph.D. (CCE)
- **Amount Awarded:** $55,236
- **Project Start Date:** May 1, 2009

#### Development of a Multimodal Transportation Educational Virtual Appliance (MTEVA) to Study Congestion during Extreme Tropical Events (CMS Project # 2009-010)
- **PI:** Peter Sheng, Ph.D. (CCE)
- **Co-Investigators:** Panos Pardalos, Ph.D. (ISE);
  Renato Figueiredo (ECE);
  Justin Davis, Ph.D. (CCE)
- **Amount Awarded:** $110,000
- **Project Start Date:** August 1, 2009

#### Robust Congestion Pricing under Boundedly Rational Travel Behaviors (CMS Project # 2009-012)
- **PI:** Yafeng Yin, Ph.D. (CCE)
- **Amount Awarded:** $88,437
- **Project Start Date:** May 15, 2009

#### Needs Assessment of Land Use Modeling for FSUTMS, Phase 1 (CMS Project # 2009-013)
- **PI:** Zhong-Ren Peng, Ph.D. (URP)
- **Amount Awarded:** $25,000
- **Project Start Date:** June 1, 2009
Central Data Warehouse Configuration, Data Analysis for Congestion Mitigation Studies (CMS Project # 2008-001)
PI: Kenneth Courage, P. Eng., Professor Emeritus (CCE)
Amount Awarded: $78,698
Project Start Date: February 15, 2008

Multimodal Solutions for Large Scale Evacuations (CMS Project # 2008-005)
PI: Panos Pardalos, Ph.D. (ISE)
Amount Awarded: $71,481
Project Start Date: May 15, 2008

A Pricing Approach for Mitigating Congestion in Multimodal Transportation Systems (CMS Project # 2008-006)
PI: Siriphong (Toi) Lawphongpanich, Ph.D. (ISE)
Co-Investigator: Yafeng Yin, Ph.D. (CCE)
Amount Awarded: $119,023
Project Start Date: March 1, 2008

Vehicle-Miles-of-Travel-Based Traffic Impact Assessment Methodology (CMS Project # 2008-007)
PI: Ruth Steinier, Ph.D. (URP)
Co-Investigator: Siva Srinivasan, Ph.D. (CCE)
Amount Awarded: $147,000
Project Start Date: July 1, 2008

Implementation of the Statewide Traffic Engineering Warehouse for Regionally Archived Data (STEW ARD) (Project # 72734)
PI: Kenneth Courage, P. Eng., Professor Emeritus (CCE)
Cost-sharing: $78,992
Project Start Date: April 4, 2008

A Pricing Approach for Mitigating Congestion in Multimodal Transportation Systems (CMS Project # 2008-006)
PI: Siriphong (Toi) Lawphongpanich, Ph.D. (ISE)
Co-Investigator: Yafeng Yin, Ph.D. (CCE)
Amount Awarded: $119,023
Project Start Date: March 1, 2008

Vehicle-Miles-of-Travel-Based Traffic Impact Assessment Methodology (CMS Project # 2008-007)
PI: Ruth Steinier, Ph.D. (URP)
Co-Investigator: Siva Srinivasan, Ph.D. (CCE)
Amount Awarded: $147,000
Project Start Date: July 1, 2008

Trip Generation Characteristics of Special Generators (Project # 76173)
PI: Yafeng Yin, Ph.D. (CCE)
Co-Investigator: Siva Srinivasan, Ph.D. (CCE)
Amount Awarded: $147,000
Project Start Date: October 13, 2008

Multimodal Arterial LOS Modeling and Testing (Project # 76279 and #76293)
PIS: Scott Washburn, Ph.D. (CCE)
Cost-sharing: $75,000
Project Start Date: October 13, 2008

FDOT MATCH PROJECTS

Field Data Collection and Analysis for Freeway Work Zone Capacity Estimation (Project # 67207)
PIS: Lily Elefteriadou, Ph.D. (CCE)
Cost-sharing: $44,341
Project Start Date: May 8, 2008
Completed Project (June 25, 2008)

Travel Time Reliability Modeling for Florida (Project # 77415)
PIS: Lily Elefteriadou, Ph.D. (CCE)
Cost-sharing: $100,000
Project Start Date: October 27, 2008

Development of a Prototype Land Use Model for Statewide Transportation Planning Activities (Project # 78101)
PIS: Zhong-Ren Peng, Ph.D. (URP)
Cost-sharing: $175,000
Project Start Date: December 19, 2008

Improvements and Enhancements to LOSPLAN 2009 (Project # 81431)
PIS: Scott Washburn, Ph.D. (CCE)
Cost-sharing: $90,000
Project Start Date: June 17, 2009

Managed Lane Operations-Adjusted Time of Day Pricing vs. Near Real Time Dynamic Pricing (Project # 81551)
PIS: Yafeng Yin, Ph.D. (CCE)
Co-Investigators: Lily Elefteriadou, Ph.D. (CCE) Scott Washburn, Ph.D. (CCE)
Cost-sharing: $469,389
Project Start Date: June 9, 2009

Characterizing the Tradeoffs and Costs Associated with Transportation Congestion in Supply Chains (CMS Project # 2008-004)
PIS: Joseph Gueus, Ph.D. (ISE)
Amount Awarded: $57,475
Project Start Date: May 15, 2008

Simulation-Based Robust Optimization for Actuated Signal Timing and Setting (CMS Project #2008-003)
PIS: Yafeng Yin, Ph.D. (CCE)
Co-Investigators: Scott Washburn, Ph.D. (CCE); Farid AitSahlia, Ph.D. (ISE)
Amount Awarded: $109,335
Project Start Date: March 1, 2008

Vehicle-Miles-of-Travel-Based Traffic Impact Assessment Methodology (CMS Project # 2008-007)
PIS: Ruth Steinier, Ph.D. (URP)
Co-Investigator: Siva Srinivasan, Ph.D. (CCE)
Amount Awarded: $147,000
Project Start Date: July 1, 2008

Field Data Collection and Analysis for Freeway Work Zone Capacity Estimation (Project # 67207)
PIS: Lily Elefteriadou, Ph.D. (CCE)
Cost-sharing: $44,341
Project Start Date: May 8, 2008
Completed Project (June 25, 2008)
CMS PUBLICATIONS

ARULESAN, A., ELEFTERIADOU, L., AND PARDALOS, P.M.

BAI, L., HEARN, D.W., AND LAWPHONGPANICH, S.

CLASSEN, S., SHECTMAN, O., STEPHENS, B., DAVIS, E., LANFORD, D.N., AND MANN, W.

HAMDOUCH, Y., AND LAWPHONGPANICH, S.

HAMDOUCH, Y., AND LAWPHONGPANICH, S.

HEASLIP, K., KONDYL, A., ARGUEA, D., ELEFTERIADOU, L., SULLIVAN, F.,

LAWPHONGPANICH, S., AND YIN, Y.

LAWPHONGPANICH, S., AND YIN, Y.

REBENNACK, S., ARULESAN, A., ELEFTERIADOU, L., AND PARDALOS, P.M.

SONG, Z., YIN, Y., AND LAWPHONGPANICH, S.
“Nonnegative Pareto-Improving Tolls with Multiclass Network Equilibria,” Transportation Research Record, in press.

WU, D., YIN, Y., AND LAWPHONGPANICH, S.

YIN, Y., AND LAWPHONGPANICH, S.

ZHANG, L., LAWPHONGPANICH, S., AND YIN, Y.
PRESENTATIONS

ARULSELVAN, A., ELEFTERIADOU, L., AND PARDOLO, P.M.

KONUR, D. AND GEUNES, J.

LAWPHONGPANICH, S.

LAWPHONGPANICH, S. AND YIN, Y.

LAWPHONGPANICH, S. AND YIN, Y.
“Pareto-Improving Road Pricing Schemes for Sustainable Mobility,” 2009 NSF CMMI Engineering Research and Innovation Conference, Honolulu, HI, June 2009. (Poster)

WU, D., YIN, Y., AND LAWPHONGPANICH, S.

WU, D., YIN, Y., AND LAWPHONGPANICH, S.

YIN, Y.

ZHANG, L. AND YIN, Y.
UF currently offers 11 undergraduate and 22 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 69 students are affiliated with the CMS through direct participation in CMS-funded projects or other transportation-related projects. There are 53 graduate students working on CMS-funded projects and 13 undergraduate students affiliated with the center. The center awarded two CMS assistantships during the 2008-2009 school year, and these students are currently working on their master’s 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. The Transportation Research Internship Program (TRIP) is offered each summer to provide the opportunity for undergraduate students from UF and other universities 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 chapter of the Institute of Transportation Engineers (ITE).

Over the past two years, the CMS has organized several information sessions both at UF and at other institutions to discuss with undergraduate students transportation as a career choice and to highlight research being currently performed by CMS faculty and students.
**Education Highlights**

“From the moment I arrived at the University of Florida nearly two years ago, I have studied and worked in a very friendly environment where I had the opportunity to attend conferences, seminars and advanced courses. Throughout my studies, I experienced consistent support from outstanding professors who were always available and ready to assist students. I feel very lucky to have completed my master’s degree at the University of Florida.”

**Dimitra Michalaka, M.S. (UF 2009)**

“Graduate school has been a rewarding experience for me. My course work, professors and research have helped me further define the transportation career path I wish to follow.”

**Aaron Elias**
M.S. Student/Transportation

“Helping my advisor prepare a research proposal for the CMS gave me some idea of what proposal writing is like. I think it is beneficial for students who want to pursue an academic career.”

**Yingyan Lou, Ph.D. (UF 2009)**
Assistant Professor
University of Alabama

“Growing professionally and academically needs character which cannot be purchased, bargained or rented from anyone. I am glad the transportation program at UF provided me the education through which I developed a character.”

**Vipul Modi**
M.S. Student/Transportation

“Becoming a traffic engineer has not made me a better driver, but I hope to make everyone better bicyclists and pedestrians through design.”

**Jessica Mackey**
M.S. Student/Transportation
Urban & Regional Planning

“The CMS program promotes a kind of academic ‘cross pollination’ tapping into multiple disciplines to solve transportation issues.”

**Grady Carrick, M.S. (UF 2004)**
Regional Commander
Florida Highway Patrol
Ph.D. Student/Transportation
Aaron Elias was selected as the 2009 CMS Student of the Year. Aaron is a master’s student in the transportation engineering program, and is expected to graduate in August 2009. His selection was based on academic standing and excellent work in research project assignments and his thesis. As a research assistant, Aaron took a leadership role in working on NCHRP Project 3-60A (Validation and Enhancement of the Interchanges Ramp Terminal Methodology), with Lily Elefteriadou, CMS Director. His thesis evaluated modeling of roundabouts using CORSIM, a widely used traffic simulation tool. Aaron is also active in the UF student chapter of the Institute of Transportation Engineers (ITE). Read more about Aaron Elias on page 13 of the fall 2008 issue of the CMS newsletter, or visit: http://cms.ce.ufl.edu/publications/newsletter.php.

The USDOT/Research & Innovative Technology Administration (RITA) issues calls for the selection of the Student of the Year from all active University Transportation Centers (UTC) in the nation. Students are nominated by faculty at their UTCs. Criteria is based on academic performance, technical and research merit and professionalism and leadership skills. Selected students are honored at a ceremony held during Council of University Transportation Centers (CUTC) Banquet at the annual meeting of the Transportation Research Board (TRB). Students are given a certificate from the USDOT and a $1,000 award from their home UTC.
## CMS-Affiliated Graduate Students

<table>
<thead>
<tr>
<th>Name</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guy Abi-Nader</td>
<td>CCE</td>
</tr>
<tr>
<td>Jessica Alvarez</td>
<td>URP/CCE</td>
</tr>
<tr>
<td>Stephen Anderson</td>
<td>URP</td>
</tr>
<tr>
<td>Abdulnasser Arafat</td>
<td>URP</td>
</tr>
<tr>
<td>Ashwin Arulselvan</td>
<td>ISE</td>
</tr>
<tr>
<td>Andrew Avent</td>
<td>CCE</td>
</tr>
<tr>
<td>Kezia Awadzi</td>
<td>OT</td>
</tr>
<tr>
<td>Christina Barone</td>
<td>URP</td>
</tr>
<tr>
<td>Andrew Batson</td>
<td>URP</td>
</tr>
<tr>
<td>Kevin Beigler</td>
<td>URP</td>
</tr>
<tr>
<td>Grady Carrick</td>
<td>CCE</td>
</tr>
<tr>
<td>George Chrysikopoulou</td>
<td>CCE</td>
</tr>
<tr>
<td>Lauren Delarco</td>
<td>URP</td>
</tr>
<tr>
<td>Andrew DeVault</td>
<td>URP</td>
</tr>
<tr>
<td>Nagendra Dhakar Singh</td>
<td>CCE</td>
</tr>
<tr>
<td>Christopher Dillaha</td>
<td>URP</td>
</tr>
<tr>
<td>Aaron Elias</td>
<td>CCE</td>
</tr>
<tr>
<td>Allison Fischman</td>
<td>URP</td>
</tr>
<tr>
<td>Dima Haddad</td>
<td>URP</td>
</tr>
<tr>
<td>Genesis Harrod</td>
<td>URP/CCE</td>
</tr>
<tr>
<td>Christen Hutton</td>
<td>URP</td>
</tr>
<tr>
<td>Mayank Jain</td>
<td>CCE</td>
</tr>
<tr>
<td>Deepti Juneja</td>
<td>ISE</td>
</tr>
<tr>
<td>David Kanarek</td>
<td>URP</td>
</tr>
<tr>
<td>Alexandra Kondyli</td>
<td>CCE</td>
</tr>
<tr>
<td>Dincer Konur</td>
<td>ISE</td>
</tr>
<tr>
<td>Alex Kreig</td>
<td>URP</td>
</tr>
<tr>
<td>Shani Kruljac</td>
<td>URP</td>
</tr>
<tr>
<td>Ashish Kulshretha</td>
<td>CCE</td>
</tr>
<tr>
<td>Anna Lai</td>
<td>CCE</td>
</tr>
<tr>
<td>Seokjoo Lee</td>
<td>CCE</td>
</tr>
<tr>
<td>Katie Leonard</td>
<td>URP</td>
</tr>
<tr>
<td>Jing Li</td>
<td>CCE</td>
</tr>
<tr>
<td>Yingyan Lou</td>
<td>CCE</td>
</tr>
<tr>
<td>Cuie Lu</td>
<td>CCE</td>
</tr>
<tr>
<td>Lu Ma</td>
<td>CCE</td>
</tr>
<tr>
<td>Jessica Mackey</td>
<td>URP/CCE</td>
</tr>
<tr>
<td>Mohammed S. Mamun</td>
<td>CCE</td>
</tr>
<tr>
<td>Harish Manda</td>
<td>CCE</td>
</tr>
<tr>
<td>Barbara Martin</td>
<td>CCE</td>
</tr>
<tr>
<td>Dimitra Michalaka</td>
<td>CCE</td>
</tr>
<tr>
<td>Vipul Modi</td>
<td>CCE</td>
</tr>
<tr>
<td>Stephanie Murray</td>
<td>URP</td>
</tr>
<tr>
<td>Young Namkoong</td>
<td>CISE</td>
</tr>
<tr>
<td>Abigail Osei-Asamoah</td>
<td>CCE</td>
</tr>
<tr>
<td>Benito Perez</td>
<td>URP/CCE</td>
</tr>
<tr>
<td>Russell Provost</td>
<td>URP</td>
</tr>
<tr>
<td>Hari Ramachandran</td>
<td>ISE</td>
</tr>
<tr>
<td>Steffan Rebennack</td>
<td>ISE</td>
</tr>
<tr>
<td>Chad Riding</td>
<td>URP</td>
</tr>
<tr>
<td>Michael Riebe</td>
<td>CCE</td>
</tr>
<tr>
<td>Jeffrey Schmucker</td>
<td>URP</td>
</tr>
<tr>
<td>Yen-Wen Shao</td>
<td>CCE</td>
</tr>
<tr>
<td>Endira Sharma</td>
<td>URP</td>
</tr>
<tr>
<td>Yongwon Shim</td>
<td>CCE</td>
</tr>
<tr>
<td>Ziqi Song</td>
<td>CCE</td>
</tr>
<tr>
<td>Irene Soria</td>
<td>CCE</td>
</tr>
<tr>
<td>Jian Sun</td>
<td>CCE</td>
</tr>
<tr>
<td>Elizabeth Thompson</td>
<td>URP</td>
</tr>
<tr>
<td>Matt Weisman</td>
<td>CCE</td>
</tr>
<tr>
<td>Stacey Winfield</td>
<td>URP</td>
</tr>
<tr>
<td>Sandy Winter</td>
<td>OT</td>
</tr>
<tr>
<td>Di Wu</td>
<td>CCE</td>
</tr>
<tr>
<td>Li Xie</td>
<td>CCE</td>
</tr>
<tr>
<td>Karun Yathindra</td>
<td>CCE</td>
</tr>
<tr>
<td>Ramakrishna Yennamanni</td>
<td>CCE</td>
</tr>
<tr>
<td>Lihui Zhang</td>
<td>CCE</td>
</tr>
<tr>
<td>Qipeng Zhang</td>
<td>ISE</td>
</tr>
<tr>
<td>Xiaoyu Zhu</td>
<td>CCE</td>
</tr>
</tbody>
</table>
STUDENT ACTIVITIES

CMS-affiliated students are a dynamic group who organize and participate in many activities with research, educational and social benefits. In fall 2008, 10 students from the transportation program attended the TRANSPO 2008 Conference in Orlando, Fla. Five entries were submitted at TRANSPO for the student poster competition by CMS-affiliated students. Those winning awards included Alexandra Kondyli (1st Place) for her work on “Driver Behavior at Freeway-Ramp Merging Areas: Focus Group Findings” and Abishek Komma and Abigail Osei-Asamoah (2nd Place) for their work on “Estimating Capacity of a Signalized Intersection with a Left-Turn Lane Using a Probabilistic Approach.” Other entries included posters from Dimitra Michalaka (“Proactive and Robust Dynamic Pricing Strategies for High Occupancy/Toll Lanes”), Ziqi Song (“Non-negative Pareto-Improving Tolls with Multiclass Network Equilibria”) and Yingyan Lou (“Freeway Service Patrol Deployment Planning for Incident Management and Congestion Mitigation”).

In January 2009, 18 CMS-affiliated students traveled to the 88th Annual Transportation Research Board Conference in Washington, D.C. This experience presented an opportunity for students to network with their peers from other universities and with other transportation professionals. CMS-affiliated students also participated in the Southeastern Transportation Center (STC), a consortium comprised of 10 universities of which UF is a member.

In line with a very energetic group of students is also a very productive student chapter of the Institute of Transportation Engineers (ITE). Led by Vipul Modi, the chapter’s president this year, the student organization has been successful in coordinating and participating in a variety of activities. Highlights of these activities include volunteering at TRANSPO 2008, a field trip to the Florida Highway Patrol and to the Transportation Management Center, both in Jacksonville, Fla., and participation in the One Less Car challenge where students pledged to commute by alternatives to single occupancy vehicles.

Other activities have included social events such as the chapter’s annual bowling event, a transportation program-sponsored picnic, attendance at the UF Transportation Research Center reception during TRB and participation at the American Cancer Society’s Relay for Life fundraiser.

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 Engineering and Urban & Regional Planning.

As of spring 2009, one student has graduated from this program with an M.S./MAURP degree, and three others are working toward their degree. The first graduate of the concurrent degree program, Benito Perez, is currently working as a transportation engineer/planner with the Hampton Roads Metropolitan Planning Organization in Chesapeake, Va. Mr. Perez’s position will focus on long range transportation planning for the Hampton Roads area.

TRANSPORTATION RESEARCH INTERNSHIP PROGRAM (TRIP)

This year, a total of 19 applications were received, and four interns were selected to participate in this summer’s program. TRIP is designed to expose undergraduate students to the world of transportation research. Interns have the opportunity to participate in cutting-edge research at the CMS with faculty and graduate students. CMS expectations are that the internship will help spark the students’ interest in pursuing graduate studies and/or a career in transportation engineering. The program runs from May to August every summer, and students are expected to 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. The projects are funded partially by the CMS and partially by other organizations such as the Florida Department of Transportation, the National Science Foundation (NSF), and the National Cooperative Highway Research Program (NCHRP). Interns in the program are supervised by a faculty advisor and work in close collaboration with master's and doctoral students. Interns are also required to attend seminars presented by faculty and students. Students are expected to produce a research report related to their assigned project and present it at the end of their internship period.

Clockwise from top right:
Chase Wilkinson, Amy Chow, Yashvi Patel and Heather Hammontree with Associate Professor Scott Washburn (middle) after the interns’ final presentations.

UF intern Amy Chow presents her work at one of the transportation summer seminars.

Martin Seimerink, Lily Elefteriadou and Tamo Vogel at UF.
CMS-Affiliated Undergraduate Students and Interns

Jorge Barrios (TRIP Summer 2008) CCE/UF
Amy Chow (TRIP Summer 2009) CCE/UF
Andy Duce (TRIP Summer 2008) CCE/UF
David Guttenplan CCE/UF
Heather Hammontree (TRIP Summer 2009) CCE/UF
Johnathan Lowe, M.S (Post-Baccalaureate) CCE/UF
Dustin Meyer (BHS Honors Program) OT/UF
Susanna Roque (TRIP Summer 2008) St. Francis Catholic H.S., Gainesville
Martijn Siemerink (visiting international student) Univ. of Twente, The Netherlands/Civil Engineering
Tamo Vogel (visiting international student) Univ. of Twente, The Netherlands/Civil Engineering
John Watson (TRIP Summer 2008) CCE/UF
Yashvi Patel (TRIP Summer 2009) Villanova University/Civil Engineering
Chase Wilkinson (TRIP Summer 2009) CCE/UF

BHS - Bachelors in Health Science Program (OT)
CCE - Civil & Coastal Engineering
ISE - Industrial & Systems Engineering
OT - Occupational Therapy
**INFORMATIONAL SESSIONS**

Informational sessions are part of the CMS’s strategy to expose undergraduate engineering students to transportation as a career choice. The sessions provide information on the various career opportunities within the transportation industry, the research activities conducted by CMS faculty and students and the available funding opportunities offered by the center. Informational sessions are held at the UF campus and at other institutions.

**VIPS DURING THE 2008-2009 SCHOOL YEAR**

*Institute of Industrial Engineers (UF IIE Student Chapter)*  
October 16, 2008

*Society of Women Engineers (UF SWE Student Chapter)*  
November 18, 2008

*Rose-Hulman Institute of Technology*  
November 4, 2008

*Introduction to Civil Engineering*  
Fall and spring of each year
TECHNOLOGY TRANSFER

CONGESTION MITIGATION STRATEGIES SYMPOSIUM

The Congestion Mitigation Strategies Symposium, held in November 2008 at the University of Florida, was organized by the CMS and the Transportation Research Center to stimulate dialogue among policy makers, academics, industry leaders and the public at large on issues related to mitigating congestion in Florida and nationally. The symposium featured U.S. Congressman John L. Mica of Florida, who serves as the Republican Leader of the House Transportation & Infrastructure Committee and has been recognized as a national leader on many transportation issues. Other distinguished guest speakers included Linda Watson, CEO of LYNX (Orlando Transit System), who spoke on how transit systems have improved and resulted in alleviated congestion in Orlando, Fla., and C. David Brown, II, the former Florida Transportation Commission chair, now serving as the chair of Broad and Cassel, a law firm in Florida. Mr. Brown spoke about transportation planning and how land use issues are vital to the process. The event was recorded and posted on the CMS Web site at: http://cms.ce.ufl.edu/news_events/Congestion_Mitigation_Symposium.php.

DISTINGUISHED LECTURER SEMINAR SERIES

The CMS hosts one distinguished speaker in both the fall and spring semesters for the Distinguished Lecturer Seminar Series. Distinguished academics with broad experience in transportation issues are invited to present lectures related to their research. Criteria for inviting speakers include credentials and relevance of the lecture to the theme of the CMS. Affiliated faculty, students and staff from the departments of Civil & Coastal Engineering, Industrial & Systems Engineering, Urban & Regional Planning, and Occupational Therapy regularly attend the seminars. The Distinguished Lecturers for the 2008-2009 year were Michael Meyer, Ph.D., professor, Georgia Institute of Technology (fall 2008) and Genevieve Giuliano, Ph.D., senior associate dean for Research and Technology, director of METRANS, University of Southern California School of Policy, Planning and Development (spring 2009). Both lectures were videotaped and are available as webcasts from the CMS Web site at: http://cms.ce.ufl.edu/news_events/distinguished_lecturer_seminar_series.php.

ELECTRONIC DELIVERY IN GRADUATE EDUCATION (EDGE)

CMS-affiliated faculty teach courses through the College of Engineering’s EDGE program. Traffic Flow Theory (TTE 6267) is taught by Lily Elefteriadou every fall semester and Traffic Engineering (TTE 5256) is taught by Bill Sampson during the spring semester. 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.

ANNUAL CMS STUDENT CONFERENCE

The CMS Annual Student Conference was held in March 2009 at the Samuel P. Harn Museum of Art (UF campus). The half-day conference was attended by UF students, faculty and staff, and included members of the center’s External Advisory Board and other transportation professionals. A total of eight students were chosen by the CMS Internal Steering Committee to present their research on transportation-related issues from the departments of Civil & Coastal Engineering, Industrial & Systems Engineering, Occupational Therapy and Urban & Regional Planning. This year, the CMS recognized the students with the best presentations. The students were evaluated by the EAB members, and the awardees were selected based on the EAB’s votes. A complete list of participants, including the winners of the student presentation competition, is provided on the next page. A poster session was held during lunch as part of the EAB activities. Several students participated and delivered 1- to 3-minute summaries of their work.
CONFERENCE PRESENTERS

Ashwin Arulselvan (ISE)
Branch-and-Price Approach for a Bimodal Evacuation Problem

Dincer Konur (ISE)
A Competitive Facility Location Game with Traffic Congestion Costs

Lihui Zhang (CCE)
Robust Synchronization of Actuated Signals on Arterials

Di Wu (CCE)
Pareto-Improving Congestion Pricing on Multimodal Transportation Networks
(First Place Winner)

Keirra Gent (OT)
Occupational Therapy Driving Performance Issues in Post Deployed Military Personnel with TBI, PTSD/Depression

Russell Provost (URP)
Using Geographical Information Systems to Analyze Relationships between Factors in the Built Environment and Travel Behavior

Chad Riding (URP)
Access Management as a Means of Accommodating Access, Accessibility, and Mobility on an SIS Facility: The Case Study of State Road 26 through Newberry, Florida
(Second Place Winner)

Matt Weisman (CCE)
A Comparison of Signal Preemption and Priority for Emergency Vehicle Response (Third Place Winner)

Alexandra Kondyli (CCE)
Driver Behavior at Freeway-Ramp Merging Areas: Focus Group Findings

Ashish Kulshrestha & Abigail Osei-Asamoah (CCE)
Estimating Capacity of Signalized Intersection with a Left-Turn Lane Using a Probabilistic Approach

Yingyan Lou (CCE)
A Robust Approach to Discrete Network Designs with Demand Uncertainty

Dimitra Michalaka (CCE)
Proactive and Robust Dynamic Pricing Strategies for High Occupancy/Toll Lanes

Xiaoyu Zhu (CCE)
A Case Study in Spatial Misclassification of Work Zone Crashes

POSTERS

Alexandra Kondyli (CCE)
Driver Behavior at Freeway-Ramp Merging Areas: Focus Group Findings

Ashish Kulshrestha & Abigail Osei-Asamoah (CCE)
Estimating Capacity of Signalized Intersection with a Left-Turn Lane Using a Probabilistic Approach

Yingyan Lou (CCE)
A Robust Approach to Discrete Network Designs with Demand Uncertainty

Dimitra Michalaka (CCE)
Proactive and Robust Dynamic Pricing Strategies for High Occupancy/Toll Lanes

Xiaoyu Zhu (CCE)
A Case Study in Spatial Misclassification of Work Zone Crashes

TRANSPORTATION SEMINAR SERIES

Fall 2008

Fehr & Peers Information Session
Presenter: Eric Womeldorff
Fehr & Peers
October 3, 2008

What’s HOT in the Real World?
Presenter: Ken Kaltenbach, PE
Senior Vice President
Transportation Planning Division
Corradino Group
October 16, 2008

Modern Roundabouts for Modern Times
Presenter: Ken Sides, PE, PTOE, AICP
City of Clearwater
October 17, 2008

Climate Change and Transportation: Cause and Effect Challenges for Civil Engineering
Michael D. Meyer, Ph.D., Professor
Georgia Institute of Technology
November 17, 2008
Distinguished Lecturer

InSync Traffic Adaptive Signal System: Smart Traffic Signals Coordinated with No Transitions or Cycle Lengths
Presenter: Reggie Chandra, PE, PTOE
Rhythm Engineering
December 4, 2008
Spring 2009

Understanding Transit Service Reliability and Service Restoration
Zhong-Ren Peng, Ph.D.
UF Department of Urban & Regional Planning
January 22, 2009

2010 Highway Capacity Manual
Presenter: Mark Vandehey, PE
Senior Principal Engineer
Kittelson & Associates
February 5, 2009

Optimal Assignment of Emergency Response Service Units
Presenter: Kelvin Cheu, Ph.D.
Associate Professor
Civil Engineering, UT - El Paso
February 12, 2009

95 Express: Providing Congestion Relief and Offering Transportation Options
Presenter: Debora Rivera, PE
Director of Transportation Operations, FDOT District Six
February 19, 2009

Impacts of Port Gate Operations on the Highway System: A Case Study
Presenter: Genevieve Giuliano, Ph.D.
Senior Associate Dean for Research and Technology, Director of METRANS, University of Southern California School of Policy, Planning and Development
March 5, 2009
Distinguished Lecturer

A Competitive Location Game with Traffic Congestion Costs
Presenter: Joseph Geunes, Ph.D.
Associate Professor
UF Industrial & Systems Engineering
March 19, 2009

Justification and Fine Tuning the Design of Managed Lanes Using Microsimulation to Assess Freeway Operations: The I-95 Express Experience in South Florida
Presenters: David A. Stroud, PE, AICP
Jaimison Sloboden, PE, RS&H
March 26, 2009

Variable Speed Limits
Presenter: Rick Morrow, PE
Traffic Operations Engineer
FDOT District Five
April 2, 2009

Bus Rapid Transit Applications
Presenter: Alan Danaher, PE
PTOE, Parsons & Brinkerhoff
April 9, 2009

The Gainesville Traffic Management System
Presenter: Matt Weisman
Traffic Engineer
City of Gainesville
April 16, 2009

Summer 2009

Traffic Incident Management
Presenter: Grady Carrick
Regional Commander, FHP
Doctoral student
May 21, 2009

Driver Behavior at Freeway-Ramp Merging Areas
Presenter: Alexandra Kondyli
Doctoral candidate
May 28, 2009

System-Wide Congestion Pricing: A Hierarchical Framework
Presenter: Yingyan Lou
Doctoral candidate
June 4, 2009

Transportation Systems Research: Cooperative Systems, ITS and Trucking Sustainability
Presenter: Dr. Peter Sweatman
Director, UMTRI
June 9, 2009

A Heuristic Method for Synthetic Population Generation
Presenter: Lu Ma
Doctoral student
June 11, 2009

Robust Signal Timing for Arterials under Day-to-Day Demand Variations
Presenter: Lihui Zhang
Doctoral student
June 18, 2009

Network Design Problem under Build-Operate-Transfer Scheme
Presenter: Di Wu
Doctoral student
June 25, 2009
“CMS significantly extends and enhances the learning environment available to many aspiring transportation professionals – the very ones who will be leading the profession within just a couple of decades. It does this by providing an environment where theory and reality can come together through applied research projects having regional as well as national significance.”

Wayne Kittelson, P.E.
Principal, Kittelson & Associates, Inc.

“The center provides for an excellent venue for academia and students to collaborate with practitioners to study current day challenges and develop implementable solutions.”

Ananth Prasad, P.E.
DOT Market Sector Leader
HNTB Corporation

“The CMS was established because of its theme and the impact of congestion on anyone who travels. By expanding these congestion issues, the CMS will be the ‘go-to’ center on the subject of congestion.”

Richard Long
Director of Research
Florida Department of Transportation (FDOT)

“CMS takes every opportunity to share their important research with a variety of professionals in the industry. The center does an extraordinary job of obtaining input from a diverse group of people with a wide range of disciplines and expertise to help guide the center’s critical congestion mitigation and innovative multimodal transportation research. I believe their superior faculty and research approach results in the most practical inventive transportation solutions.”

Laura Kelley
Deputy Executive Director
Finance, Administration and Planning
Orlando-Orange County Expressway Authority

“I have been impressed that such a new UTC has made so much progress in such a short time. The program is further strengthened by being housed at the University of Florida where the best and brightest in faculty and students can be recruited. In meeting and interacting with the students and faculty, I am convinced they have the winning combination that will help us solve the transportation problems of today and the future.”

Linda Watson
Chief Executive Officer
LYNX
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.

**List of Partners:**

Center for Health and the Built Environment  
City of Gainesville  
Dowling & Associates, Inc.  
Federal Highway Administration (FHWA)  
Florida Department of Transportation (FDOT)  
Florida Highway Patrol (FHP)  
HNTB  
Kimley-Horn  
Kisinger Campo & Associates Corp.  
Kittelson & Associates, Inc.  
LYNX  
Midwest Research Institute  
Orlando-Orange County Expressway Authority (OOCEA)  
PATH/University of California, Berkeley  
PBS&J  
Rose-Hulman Institute of Technology  
T-Concepts Corp.  
Telvent  
Transportation Research Board (TRB)  
University of Bochum, Germany  
University of Hartford  
University of Michigan  
University of Southern California (METRANS)  
University of Tennessee (Southeastern Transportation Center)  
University of Texas at Austin  
University of Twente, The Netherlands  
University of Washington
## CMS AFFILIATED DEPARTMENTS & CENTERS

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

### DEPARTMENT OF CIVIL & COASTAL ENGINEERING

**Web site:** [http://www.cc.ufl.edu/](http://www.cc.ufl.edu/)

**Interim Chair:** Kirk Hatfield, Ph.D.

### CMS-Affiliated Faculty and Centers at Civil & Coastal Engineering

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenneth Courage, P. Eng.</td>
<td>Professor Emeritus</td>
<td>(Transportation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Janet Degner, M.S.</td>
<td>Director</td>
<td>(Transportation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lily Elefteriadou, Ph.D.</td>
<td>Director, TRC Director</td>
<td>(Transportation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ralph Ellis, Ph.D.</td>
<td>Professor</td>
<td>(Construction Engineering)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>David Hale, Ph.D.</td>
<td>Assistant In Engineering</td>
<td>(Transportation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dennis Hiltunen, Ph.D.</td>
<td>Associate Professor</td>
<td>(Geotechnical Engineering)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fazil Najafi, Ph.D.</td>
<td>Professor</td>
<td>(Public Works)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reynaldo Roque, Ph.D.</td>
<td>Professor</td>
<td>(Materials)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bill Sampson, M.S.</td>
<td>McTrans Director</td>
<td>(Transportation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peter Sheng, Ph.D.</td>
<td>Professor</td>
<td>(Coastal Engineering)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramesh Shrestha, Ph.D.</td>
<td>Professor</td>
<td>(Geosensing)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yafeng Yin, Ph.D.</td>
<td>Assistant Professor</td>
<td>(Transportation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scott Washburn, Ph.D.</td>
<td>Associate Professor</td>
<td>(Transportation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Transportation Research Center (TRC)
Web site: [http://trc.ce.ufl.edu/](http://trc.ce.ufl.edu/)
Director: Lily Elefteriadou, Ph.D.

Center for Microcomputers in Transportation (McTrans Center)
Web site: [http://mctrans.ce.ufl.edu/](http://mctrans.ce.ufl.edu/)
Director: Bill Sampson, M.S.

Florida Transportation Technology Transfer (T³) Center
Web site: [http://t2.ce.ufl.edu/](http://t2.ce.ufl.edu/)
Director: Janet Degner, M.S.

**DEPARTMENT OF INDUSTRIAL & SYSTEMS ENGINEERING**

Web site: [http://www.ise.ufl.edu/](http://www.ise.ufl.edu/)
Department Chair: Joseph C. Hartman, Ph.D.
Associate Department Chair: Joseph Geunes, Ph.D.

**CMS-Affiliated Faculty and Centers at Industrial & Systems Engineering**

Ravindra Ahuja, Ph.D.
Professor

Farid AitShahlia, Ph.D.
Assistant Professor

Joseph Geunes, Ph.D
Associate Professor

Donald W. Hearn, Ph.D.
Professor Emeritus

Siriphong Lawphongpanich (Toi), Ph.D.
Associate Professor

Panos Pardalos, Ph.D.
Distinguished Professor

J. Cole Smith, Ph.D.
Associate Professor

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

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

**URBAN & REGIONAL PLANNING**

Web site: [http://www.dcp.ufl.edu/urp/](http://www.dcp.ufl.edu/urp/)
Department Chair: Zhong-Ren Peng, Ph.D.

**CMS-Affiliated Faculty and Centers at Urban & Regional Planning**

Ilir Bejleri, Ph.D.
Associate Professor

Zhong-Ren Peng, Ph.D.
Professor, Chair

Ruth Steiner, Ph.D.
Associate Professor

Paul Zwick, Ph.D.
Professor, Associate Dean
Research & Graduate Programs
College of Design, Construction & Planning
Urban & Regional Planning

Center for Health and the Built Environment (CHBE)
Web site: In progress (new center)
Director: Ruth Steiner, Ph.D.

Florida Bicycle Safety Education Program
Web site: [http://www.dcp.ufl.edu/centers/trafficSafetyEd/index.html](http://www.dcp.ufl.edu/centers/trafficSafetyEd/index.html)
Director: Dan Connaughton, Ed.D.

Geo-Facilities Planning and Information Research Center
Web site: [http://www.geoplan.ufl.edu/](http://www.geoplan.ufl.edu/)
Director: Paul Zwick, Ph.D.

**OCCUPATIONAL THERAPY**

**CMS-Affiliated Faculty and Centers**

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

National Older Driver Research and Training Center (NODRTC)
Web site: [http://driving.phhp.ufl.edu/](http://driving.phhp.ufl.edu/)
Director: Sherrilene Classen, Ph.D., MPH, OTR/L

Kezia Awadzi, Ph.D.
Research Scholar, Occupational Therapy

Sherrilene Classen, Ph.D., MPH, OTR/L
Assistant Professor, Occupational Therapy

William C. Mann, OTR/L, Ph.D.
Professor, Occupational Therapy
Orit Shechtman, Ph.D., OTR/L
Associate Professor, Occupational Therapy

OTHER

Graham Center for Public Service
Web site: http://www.graham.centers.ufl.edu/
Interim Director: Walter Rosenbaum, Ph. D.
**Refereed Publications**


Bejleri, I., Steiner, R. L., Provost, R. E., Fischman, A., and Arafat, A. A., “Understanding and Mapping Elements of Urban Form that Affect Children’s Ability to Walk and Bicycle to School: Case Studies of Two Tampa Bay Counties,” accepted for publication by the *Transportation Research Record: The Journal of the Transportation Research Board*, 2009.


Steiner, R. and Fischman, A., "Does Land Use and Transportation Coordination Really Make A Difference in Creating Livable Communities?" Chapter 12 in F. Wagner, R. Caves and E. Noll (eds.), Community Livability: Issues and Approaches to Sustaining the Well-Being of People and Communities, currently under review by Routledge Press.


Steiner, R., "Measuring Walkability around Elementary Schools: A Comparison of Urban Form Indices in Four Florida Counties," Presented at the Joint...
Congress of the Association of Collegiate Schools of Planning (ACSP) and the Association of European Schools of Planning (AESOP), Chicago, Ill., 2008.


CMS NEWSLETTERS

The CMS has produced four newsletters since its inception in 2007. The newsletters are designed to report on all research, educational and technology transfer activities at the center, including some feature stories on selected faculty, staff, students and affiliated centers. The newsletter is published twice a year, in late fall and spring semesters, and is made available on the CMS Web site http://cms.ce.ufl.edu/publications/newsletter.php. Printed copies are also available.