Center Theme
The Southeastern Transportation Research, Innovation, Development and Education (STRIDE) Center is a USDOT/OST-R grant-funded, regional University Transportation Center (UTC) headquartered at the University of Florida. Under this grant, STRIDE conducted transportation-related research in the areas of safety, livable communities and economic competitiveness. Through the strong interdisciplinary network of researchers, educators, state DOTs, private and public agencies, and professional organizations across the southeastern U.S. and nationally, the Center advanced the state-of-the-art in transportation and enhanced the transportation workforce for designing, implementing and managing the transportation systems of the future.
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Dear friends and colleagues,

I am very pleased to provide this final report for the STRIDE center activities from 2012 to 2017. For this first STRIDE award, we worked on building strong collaborative relationships within the consortium, with federal, state, and local partners, as well as with industry. As a result, we produced numerous research and educational products (additional information is provided in this report and on our website https://stride.ce.ufl.edu/) which are used extensively throughout the region and the nation. Many of the students recruited and funded by the consortium are now working as transportation professionals in the private and public sectors, and academia.

Under this grant, STRIDE conceptualized the first UTC conference for the Southeast, an annual event which continues to grow and attract more participants throughout the region. Our most recent conference, now in its 5th year, was the largest yet, and attracted nearly 250 participants, including representatives from most state DOTs in the region. This annual conference brings together faculty and students from universities throughout the southeast, along with other transportation professionals, to exchange information regarding ongoing projects and to explore further opportunities for collaboration. It gives us an opportunity to showcase our work, disseminate our findings and facilitate implementation, and to learn about advances in transportation research and education from our colleagues in the region.

Our work on STRIDE and our strong collaborative relationship with FDOT and the City of Gainesville has led to the creation of I-STREET (http://www.transportation.institute.ufl.edu/research-2/istreet-about-us/), a real-world testbed which will develop, evaluate, and implement advanced transportation technologies at the University of Florida campus and the surrounding transportation network. As we are gearing up for the next phase of STRIDE through the 2017 award, we will continue to leverage our UTC funds to improve the transportation system. Stay tuned to learn more about our findings, opportunities for collaboration, and suggestions for improving the transportation system in your community. During the next several years we will be placing increased emphasis on congestion mitigation and the development and use of advanced technologies, such as automated and connected vehicles, which are expected to significantly impact the transportation system in the years to come. We will continue to strive to prepare students for these new challenges, and we are very excited to expand our collaborative network and establish industry partnerships and joint activities with our partners throughout the country.

I look forward to hearing from you,

Lily Elefteriadou
Professor & UFTI/STRIDE Director
INTERNAL STEERING COMMITTEE/EXTERNAL ADVISORY BOARD

STRIDE Internal Steering Committee

Lily Elefteriadou, Ph.D.
Professor & Director of STRIDE
University of Florida

Ines Aviles-Spadoni, M.S.
STRIDE Center Coordinator
University of Florida

Downey Brill, Ph.D.
Professor
North Carolina State University

Al Giffin
Director, Auburn Transportation Research Center
Auburn University

Randall Guensler, Ph.D. (2012-2016)
Professor
Georgia Institute of Technology

Michael Hunter, Ph.D.
Associate Professor
Georgia Institute of Technology

Mohammed Hadi, Ph.D.
Professor
Florida International University

Richard Long
(Retired)
STRIDE Outreach Coordinator
University of Florida

Noreen McDonald, Ph.D.
Professor
University of North Carolina at Chapel Hill

Daniel Rodriguez, Ph.D. (2012-2014)
Professor
University of North Carolina at Chapel Hill

Virginia Sisiopiku, Ph.D.
Associate Professor
University of Alabama at Birmingham

Ruth Steiner, Ph.D.
Professor
University of Florida

Rod Turochy, Ph.D.
Associate Professor & Director of Alabama Technology Transfer Center
Auburn University

John M. Usher, Ph.D., P.E.
Professor
Mississippi State University

STRIDE External Advisory Board

Ronnie Baldwin
Chief Engineer
Alabama Department of Transportation

Randy Battey
Assistant Chief Engineer (Operations)
Mississippi Department of Transportation

Darryll Dockstader
Manager, Research Center
Florida Department of Transportation

Georgene M. Geary
State Research Engineer
Georgia Department of Transportation

Howard Glassman
Executive Director
Florida MPO Advisory Council

Ehren D. Meister
Director of Performance Metrics
North Carolina Department of Transportation

Kris Milster
ITS/Traffic Operations Specialist
Federal Highway Administration
Florida Division Office

Yvette Taylor
Regional Administrator
Federal Transit Administration

Anita Vandervalk
Principal
Cambridge Systematics, Inc.
Key Staff

Lily Elefteriadou, Ph.D.  
Professor & Director of STRIDE

Ines Aviles-Spadoni, M.S.  
STRIDE Center Coordinator

Jennifer Gomez  
Administrative Assistant

Elaine Khoo, B.S.  
Coordinator, Communications & Marketing

Richard Long (2012-2014)  
STRIDE Outreach Coordinator

Alison Tillman, B.A. (2014-2016)  
STRIDE Assistant

Leslie Washburn, P.E. (2012-2013)  
K-12 Workforce Development

STRIDE Support Staff  
UF Engineering School of Sustainable Infrastructure & Environment/College of Engineering

Sharon Henry, B.S.  
Senior Fiscal Assistant

Joan Marie McConnell  
Senior Fiscal Assistant

Dona Moss  
Grants Administrator

Timothy Talley  
IT Computer Support

Ragen Tillery  
Grants Specialist
Virginia Sisiopiku, Ph.D., UAB

“As a PI of STRIDE-funded projects, I thoroughly enjoyed working with colleagues from partner universities on collaborative research. Using various locations across the Southeast as testbeds, we developed comprehensive transportation solutions to improve traffic operations and safety in the region and beyond. The STRIDE Center is a great facilitator for the development of strong bonds between researchers, state agency representatives, and other transportation professionals with long-lasting positive impacts for the transportation industry in the Southeast.”

Rod Turochy, Ph.D., Auburn

“Auburn has been proud to be part of the STRIDE Center. Through our association with STRIDE, our faculty and graduate students have been able to work on projects that examine how the quality of bicycle facilities affects cyclists’ route choice, improve the sustainability of pavement materials, and enhance the education that our undergraduates receive pertaining to human-powered transportation. STRIDE’s policy on funding collaborative projects between universities in the region has been of tremendous benefit to our students and faculty. In addition to providing a regular means to exchange ideas and approaches, it encouraged innovation and enabled our students to broaden their perspectives beyond the gates of their university campus.”

John Usher, Ph.D., MSU

“Across the years, STRIDE has done a remarkable job of supporting a wide variety of transportation-related research with an eye on practical applications of relevance today. I feel they have also maintained an excellent balance in their attention to supporting projects that address each of the categories: research, education, workforce development, and technology transfer.”
Ruth L. Steiner, Ph.D., UF
“STRIDE has offered a great opportunity to collaborate with researchers throughout the southeastern region and to challenge my assumptions about the implementation of various transportation policies based upon my experience in Florida.”

Mohammed Hadi, Ph.D., FIU
“I think that the most valuable opportunity that STRIDE gave me and our students is to allow us to collaborate and interact with researchers and students from other universities on cutting edge research and teaching activities. The relationships between STRIDE faculty, researchers, and students and the processes that we built and applied together will provide a foundation for future collaborations on all aspects to address the many challenges and opportunities facing the transportation system in the 21st Century.”

Nagui Rouphail, Ph.D., NCSU
“STRIDE leaders should be applauded for their student-focused approach in running the regional center. From supporting student travel to key transportation conferences to conducting various student paper and poster competitions and awards, STRIDE has distinguished itself as a unique UTC whose primary mission is to develop the future transportation workforce.”

Noreen McDonald, Ph.D., UNC Chapel Hill
“School transportation is part of the lives of most families in the southeastern region. The safety and cost-effectiveness of the system are incredibly important. Support from STRIDE has allowed our team from NC, FL, and AL to make path-breaking discoveries and connect with school districts, transportation planners, and school planners to provide them with new tools to better manage this critical work.”

Mike Hunter, Ph.D., GaTech
“I have been impressed by STRIDE’s ability to engage students, researchers, and faculty to improve the quality of life of people who live in the Southeast. Through its research, education, and technology transfer efforts, I believe STRIDE has raised the bar on what we can expect and hope for from University Transportation Centers.”
January 2015
• First of the 2013 projects completed (Livability Performance Measures to Transportation Plans and Projects, 2013-018)

February 2015
• First two (Year 1) K-12 projects completed at the UAB and UF

March 2015
• UTC Conference for the Southeastern Region hosted by UAB in Birmingham, AL

June 2015
• STRIDE Education Products Showcase (webinar)

November 2015
• STRIDE co-sponsors Conference on Enhancing Driving in Gainesville, FL.

December 2015
• STRIDE Student of the Year selected: Clark Letter (UF)

January 2016
• STRIDE Center Coordinator (Ines Aviles-Spadoni, M.S.) wins CUTC-ARTBA Administrative Leadership Award

February 2016
• STRIDE releases funds for additional technology transfer projects, approves 18 projects

March 2016
• UTC Conference for the Southeastern Region hosted by the University of Tennessee, Knoxville, TN.

July 2016
• Last cohort of STRIDE interns complete their internships in the Transportation Research Internship Program (TRIP)

December 2016
• STRIDE Student of the Year selected: Clark Letter (UF)

June 2017
• STRIDE Research Summer Seminar (a one-day event showcasing products from STRIDE-funded projects)

May to June 2017
• STRIDE 2017 Webinar Series

November 2014
• STRIDE Student of the Year selected: Dr. Louis Merlin (UNC)

March 24-25, 2014
• UTC Conference for the Southeastern Region hosted by GaTech in Atlanta, Ga.
  • First of the 2012 projects completed (Development of Pedestrian & Bicycle Transportation Course Modules, 2012-028)
**PERFORMANCE MEASURES**

- **238**
  Number of presentations

- **114**
  Refereed journal publications

- **40**
  Workshops and webinars related to research projects

- **41**
  Course modules developed

- **383**
  Times modules were used within courses

- **MS 97**
  Student years supported by STRIDE Grant

- **PHD 154**
  Average number of students participating in projects funded by STRIDE grant

- **Graduate 68**
  Undergraduate 37

- **37**
  Total number of projects funded (Includes supplemental research and technology transfer projects awarded in 2015 and 2016)

- **9,162**
  Participants in K-12 events

- **1,569**
  Students participating in seminars and conferences

- **20**
  Summer interns (TRIP)
FINANCIAL REPORT

Expenditures $6,679,756.32  Matching $6,680,898.76

STRIDE expenditures and associated cost share funds from 2012 to 2017.

USDOT/STRIDE funds awarded from 2012 to 2017.

- Administration
- Research
- Education & Tech Transfer
- Workforce Development
Investigating the Effect of Drivers’ Body Motion on Traffic Safety
Angelos Barmpoutis, Ph.D., University of Florida; Alexandra Kondyli, Ph.D., University of Kansas; Virginia Sisiopiku, University of Alabama at Birmingham.
Researchers created and published an on-line, open-access scientific database that contains 523 depth video sequences of 27 drivers performing 236 merges and 287 lane changes. The database is called DMDDDB (Driver’s Motion Depth Database). The 3D motion of the drivers (see image below) was captured in the database in more than 300,000 depth frames, with 16 billion 3D points. The database is accessible from the website of the project at: http://research.dwi.ufl.edu/dmddb.

Planning for Schools: An Educational Module & Cost Calculator to Support School Siting & Transportation Decision Making
Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill; Ruth Steiner, Ph.D., University of Florida.
A website and cost calculator were created to introduce planning concepts associated with public education land use and transportation in the United States. The module focuses on the interdisciplinary issue referred to as school siting. The module also articulates challenges and best practices within school siting and transportation planning and presents a selection of resources intended to aid planners and policy makers considering strategies for implementing school siting concepts. Visit the website at: http://schoolsiting.web.unc.edu/.

Empirically Based Performance Assessment & Simulation of Pedestrian Behavior at Unsignalized Crossings
Bastian Schroeder, Ph.D., North Carolina State University; Lily Elefteriadou, Ph.D., University of Florida; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham.
Researchers developed a large database for pedestrian behavior at unsignalized crossings as well as a simulation algorithm that can be used to replicate vehicle and pedestrian behavior at these locations. The researchers published a series of related papers documenting the data collection and analysis, and the simulation tools developed.
Teaching Schoolchildren Pedestrian Safety: A Pragmatic Trial Using Virtual Reality
David Schwebel, Ph.D., University of Alabama at Birmingham.
Via the use of a virtual reality environment, the research team trained more than 305 children in pedestrian safety in Summer 2014 at the YMCA Youth Center in Birmingham, Ala. This training was reported in five local news outlets in Alabama.

Dynamic Traffic Control Interventions for Enhanced Mobility & Economic Competitiveness
Nagui Rouphail, Ph.D., North Carolina State University; Mohammed Hadi, Ph.D., Florida International University.
The research team created FREEVAL-DSS (Dynamic Strategy Selection), which assists decision makers to conduct benefit-cost analysis for different transportation solutions.

Automated Sidewalk Safety Assessment System & ADA Transition Plan
Randall Guensler, Ph.D., Georgia Institute of Technology.
The Automated Sidewalk Quality & Safety Assessment System developed in this project helps communities evaluate sidewalk condition and ADA compatibility. Results will help agencies to prioritize sidewalk improvements and improve pedestrian infrastructure.

Planning Tools for Linking Rural Development & Transportation (Based on STRIDE Project #2012-003S, A Regional Land Use Transportation Decision Support Tool for Mississippi).
Brian Morton, Ph.D., University of North Carolina at Chapel Hill; John Poros, AIA, Mississippi State University.
This is a suite of tools for planning for bicycle travel, preservation of community character, and regional development. Rural Transportation Planning Organizations may use this tool to gain insight into some of the most important consequences of economic development initiatives. The tool uses Community Viz®, photo-realistic visualizations of streetscapes, and an integrated land-use/travel-demand model.
Signal Timing Optimization with Consideration of Environmental & Safety Impacts
Lily Elefteriadou, Ph.D., University of Florida; Mohammed Hadi, Ph.D., Florida International University.
Models were developed that relate pollutant emissions and safety to macroscopic mobility measures. The results were published in journal papers and also included in the Highway Capacity Software, a product developed by UFTI/McTrans and distributed to thousands of users around the world.

Livability Performance Measures to Transportation Plans & Projects
Leigh Blackmon Lane, North Carolina State University.
Workshops held in five states (Georgia, Florida, North Carolina, Alabama, Mississippi) focused on the development of performance measures that could be used as part of a transportation or comprehensive planning process. Working with livability-oriented outcomes, participants learned how to select performance measures using the FHWA Community Vision Metrics tool and evaluated performance measures according to criteria provided in the workshop.

Investigation of ATDM Strategies to Reduce the Probability of Breakdown
Mohammed Hadi, Ph.D., Florida International University; Lily Elefteriadou, Ph.D., University of Florida.
The goal of this project was to explore and assess methods to improve the operations at critical bottlenecks utilizing ramp metering and variable speed limit (VSL) algorithms that consider the probability of breakdown at recurrent bottleneck locations. The results showed that the VSL strategy examined can considerably decrease the maximum back of queue and the duration of breakdown.
Evaluation of Traffic Control Options in Work Zones
Virginia Sisiopiku, Ph.D., Ossama Ramadan, Ph.D., University of Alabama at Birmingham.
The purpose of this study was to identify alternative bottleneck merge control strategies with a potential to minimize congestion at interstate work zones and improve relevant construction practices. Results showed that (1) work zone length is insignificant to facility LOS, environmental impacts, and delays, (2) late merge and mainline merge metering could serve as alternates to the early merge control standard practice, (3) zones there are reasonable options for scheduling work zone during any period of the day, and (4) created a set of generalized performance indices for optimizing a work zone set up that will not interfere with traffic flow.

Cycle Atlanta SWIFT Development
Kari Watkins, Ph.D., Georgia Institute of Technology.
Cycle Atlanta (http://cycleatlanta.org/) is a mobile application that records a cyclist’s bike route using the geolocation data in their phone. The app became outdated and needed an upgrade. The work conducted in the project updates their app to Apple’s iOS. The components were rewritten in Swift, and core functions were re-worked to stabilize the app.

A Naturalistic Driving Study Across the Lifespan
Despina Stavrinos, Ph.D., University of Alabama at Birmingham; Lesley Ross, The Pennsylvania State University; Virginia Sisiopiku, University of Alabama at Birmingham.
This study investigated real-world driving mobility, driving safety, and driving behavior in teen (16-19) and older (65+) at-risk drivers using a novel in-car naturalistic data collection device (N-DAD) to examine the associations between self-reported and objectively measured driving habits and identify predictors of unsafe driving. An overall lack of an association between self-reported and objectively measured driving variables were discovered. Teen and older drivers were generally satisfied with the devices and were agreeable to allowing others to review their habits to determine eligibility for an insurance discount.

Naturalistic Driving - a screen shot of the interior coding interface used in the study.

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EDUCATIONAL PRODUCTS

A Transportation Safety Module for Undergraduate Students
Leslie Strawderman, Ph.D., Mississippi State University.
http://ergo.research.isese.msstate.edu/stride-classroom-module

Pedestrian and Bicycle Transportation Short Series
Daniel Rodriguez, Ph.D., University of North Carolina at Chapel Hill.
Visit the Pedestrian & Bicycle Information Center website at http://www.pedbikeinfo.org/training/courses_short.cfm

Public Transportation Course Modules
Kari Watkins, Ph.D., GaTech; Jeff LaMondia, Ph.D., Auburn.
https://stride.ce.ufl.edu/2017/04/public-transportation-course-modules

School Transportation: Development of an Educational Module
Noreen McDonald, Ph.D.; University of North Carolina at Chapel Hill; Ruth Steiner, Ph.D., University of Florida.
https://stride.ce.ufl.edu/2017/04/school-transportation-an-educational-module-cost-calculator-to-support-school-siting-transportation-decision-making/

Signalized Intersection Simulation Program for Education
Scott Washburn, P.E., Ph.D., University of Florida.
http://209.191.183.30/signalized-intersection-simulation-program-for-education

Sustainable Pavements Course
J. Richard Willis, Ph.D., Auburn.
Visit the Pedestrian & Bicycle Information Center website at https://stride.ce.ufl.edu/2017/04/sustainable-pavements-course-modules/

A screen shot of the Signalized Intersection Simulation Program for Education tool created by Dr. Scott Washburn of the University of Florida.

A screen shot of the Pedestrian and Bicycle Information Center webpage created by Dr. Daniel Rodriguez, of UC Berkeley (formerly at UNC Chapel Hill).
Training Modules on Green/Sustainability Design & Rating Systems for Neighborhood Development & Transportation
Robert Peters, Ph.D., University of Alabama at Birmingham; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham; Adjo Amekudzi, Ph.D., GaTech.
https://stride.ce.ufl.edu/2017/04/educational-training-modules-on-greensustainability-design-ratings-system-for-neighborhood-development-transportation/

Development of Case Studies, Numerical Exercises, & Instructional Modules for Teaching Roadway Safety Analysis
Siva Srinivasan, Ph.D., University of Florida.

Statewide Training for Safety Analyst in Florida
Priyanka Alluri, Ph.D., PE, Florida International University.
To see training video, visit:

Development of Support Systems, Instructional Modules, & a Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House
Siva Srinivasan, Ph.D., University of Florida.
Driving Simulator website:
http://drivingsim.phhp.ufl.edu/
REFLECTIONS FROM CURRENT & FORMER STRIDE STUDENTS

Ishtiak Ahmed, B.S. (NCSU)
Master’s Student/Research Assistant
“As a new research assistant, STRIDE provided me with a great opportunity to learn both research and industry-based tasks.”

Bahareh Inanloo, Ph.D., EIT (FIU)
Engineer, Atkins
“STRIDE helped me focus on the path towards growing my professional future.”

Samaneh Khazraeian, M.S. (FIU)
Ph.D. Candidate
“What I love about the STRIDE program is the UTC conferences and the provided opportunities for students such as networking, student chapter presentations, poster competitions, thesis competitions, and much more! I had the best experiences of my grad life in the UTC conferences! Thank you for letting me in! I feel privileged to be a part of STRIDE!”

Seckin Ozkul, Ph.D., P.E. (UF)
Research Associate Faculty
University of South Florida CUTC
“STRIDE gave me the opportunity to fulfill my dreams of being a researcher and solving the transportation problems of today’s society.”

Ossama Ramadan, Ph.D. (UAB)
Postdoctoral Fellow, University of Alabama at Birmingham
“I was involved in four STRIDE projects. All of them were challenging enough to encourage me to learn new tools, skills, or knowledge. Working on STRIDE projects and the recognition thereafter strengthened my professional profile and better prepared me for my academic career.”

Louis Merlin, Ph.D., AICP (UNC Chapel Hill)
Assistant Professor Florida Atlantic University
“STRIDE helped connect me to the research community and understand how to become a more effective member of the research community.”

Amy Dunham, MAURP (UF)
Senior Transportation Planner, WSP USA
“Not only does STRIDE provide a wealth of opportunities to those interested in transportation, ranging from research to workforce development, but the Center attracts some of the brightest, most passionate, and innovative people I have ever worked with.”

Gustavo Riente de Andrade, M.S. (UF)
Ph.D. Candidate
“I have been working on a STRIDE project to optimize mobility, safety, and emissions at urban intersections. Under the guidance of Dr. Lily Elefteriadou, STRIDE has enabled me to benefit from diverse work environments, from the research stage of the project to implementation to the final user at McTrans Center.”

Homa Fartash, M.S. (FIU)
Ph.D. Candidate
“STRIDE provided a valuable opportunity to implement my knowledge, beyond the theories.”

Miguel Lugo, Ph.D. (UF)
Planning Associate, RS&H
“STRIDE faculty and projects allow students to develop research and writing skills of great use in the consulting world.”

Atiyya Shaw, M.S. (GaTech)
Ph.D. Student
“Through my involvement with a STRIDE project, I’ve had the opportunity to forge highly valued connections with both faculty and students across the Southeast. The STRIDE UTC has achieved the delicate but critical goal of advancing both research and the people involved, and should serve as a model for UTCs across the country.”

Yinan Zheng, M.S., Ph.D. (UF)
Data Scientist, WSP USA
“The STRIDE project begins my Ph.D. journey. It brings me not only the knowledge and technical skills, but also research and teamwork spirits, as well as professional connections.”
University of Florida (UF)  
K-12 Workforce Development Activities (2012)  
PI: Leslie Washburn, P.E.  
A series of activities were held geared toward middle school children, such as LEGO Robot Vehicle Lesson Plans for Secondary Education, Transportation Career Day, and Family Engineering Nights.

Georgia Institute of Technology (GaTech)  
Engaging in Engineering Initiative with Centennial Elementary School (2013)  
PI: Yanzhi “Ann” Xu, Ph.D.  
An active, 2-day learning program utilizing cutting edge technology and STEM concepts was developed by Centennial Place Academy, a school in Metro Atlanta that serves a racially and economically diverse population of students. Access the project website for more information: http://transportation.ce.gatech.edu/node/2617.

North Carolina State University (NCSU)  
K-12 Workforce Development Activities (2013)  
PI: James Martin, P.E.  
LEGO robots were used in various after-school workshops held at the Centennial Campus Magnet Middle School on the campus of NCSU to solve transportation engineering problems such as congestion. Students learned basic computer programming and mathematics.

University of Alabama at Birmingham (UAB)  
K-12 Workforce Development Activities (2013)  
PI: Virginia Sisiopiku, Ph.D.  
The main goal of this project was to foster interest in transportation engineering by inviting K-12 students to participate in the “Kids in Engineering” event, in collaboration with the Society of Women Engineers (SWE) and the UAB Institute of Transportation Engineers (ITE).

University of Florida (UF)  
K-12 Workforce Development Activities (2013)  
PI: Leslie Washburn, P.E.  
Activities included LEGO Robot Vehicle Lesson Plans for Secondary Education, Transportation Career Day, Family Engineering Events. SIMCity was used to develop and pilot a transportation-specific module for middle school-aged children.
UTC Conferences
2013 – Hosted by the University of Florida in Orlando, STRIDE headquarters
http://209.191.183.30/utc-conference-for-the-southeast
2014 – Hosted by the Georgia Institute of Technology, Atlanta
http://www.nctspm.gatech.edu/2014Conference
2015 – Hosted by the University of Alabama at Birmingham (in collaboration with
Mississippi State University) http://www.ncitec.msstate.edu/2015-utc/
2016 – Hosted by the University of Tennessee at Knoxville

Conference on Enhancing Driving:
An Interdisciplinary Approach
November 2, 2015, University of Florida
Co-sponsored by the STRIDE Center, this one-day conference showcased the
interdisciplinary nature of transportation research at UF. Faculty and students from
engineering, computer science, applied physiology and kinesiology, occupational
therapy, and the College of Medicine participated.

STRIDE Research Summer Seminar
June 2, 2017, University of Florida
This one-day event showcased various products that resulted from STRIDE-funded
research. Principal investigators from the University of Alabama at Birmingham,
University of Florida, Florida International University and North Carolina State
University participated in this event. Topics included: Training Modules on Green/
Sustainability Design and Rating Systems, GIS-based Instructional Tool for Crash-
Prediction Methods, Statewide Training of Safety Analyst in Florida, Using Interactive
Virtual Presence to Help Parents Install Child Restraints Correctly, Bike&Place: A
New Tool for Designing Active, Place-Making Transportation Networks, Evaluation
of Traffic Control Options in Work Zones, and Quantifying the Cost of School
Transportation and Development of an Education Module and Workshops on Multi-
modal Cost. For more information, visit: https://stride.ce.ufl.edu/2017/04/stride-
summer-research-seminar-june-2-2017/.
Student of the Year
Each year during the annual meeting of the Transportation Research Board, the U.S. Department of Transportation (USDOT) honors the best and brightest students from University Transportation Centers (UTC) in the nation for contributions to the transportation field. The students are selected for outstanding accomplishments in research, academics, professionalism, leadership, and technical merit. To the right are the students who were chosen as the STRIDE Center’s Student of the Year from 2013 to 2017.

2013
Amy Dunham, AICP (UF) (formerly Cavaretta)
MAURP, University of Florida
Senior Transportation Planner
WSP USA

2014
Erica Schmidt, M.S. (UAB)
Post Doctoral Fellow in Neuropsychology at the University of Nebraska Medical Center

2015
Dr. Louis Merlin (UNC)
Assistant Professor Florida Atlantic University

2016
Dr. Clark Letter (UF)
Research Assistant Professor
University of Florida Transportation Institute

2017
Don Watson, M.S. (UF)
Ph.D. Candidate
Traffic Specialist
Florida Department of Transportation

OTHER STUDENT AWARDS
Awards for previous years can be found at
https://stride.ce.ufl.edu/student-awards

Jack Cabe
Georgia Institute of Technology
Third Place Student Paper, American Planning Association/Transportation Planning Division
Title: An Evaluation of “Road Diet” Projects on 5-Lane and Greater Roadways

Chelsea Dyess
Georgia Institute of Technology
3rd Place Winner, STRIDE Student Poster Competition, TRB 2016, Washington, D.C.
Poster Title: Pedestrian Access to Bus Stops in Atlanta

Somaye Fakharian Qom
Florida International University
Top Student Paper Award, 15th International Conference on Managed Lanes, TRB 2016
Outstanding Dissertation Year Fellowship, Spring-Summer 2016

Deja Jackson
University of Florida
Best Oral Presentation, Dwight D. Eisenhower Transportation Fellowship Program, 2016 TRB, Washington, D.C.
Title: Today’s Perception of Vehicle Safety and Its Impact on Preparing for Tomorrow’s Autonomous Vehicles
Committee 200 (C200) Scholar Award, HW College of Engineering, University of Florida

Ossama Ramadan
University of Alabama at Birmingham
1st Place Winner, STRIDE Student Poster Competition, TRB 2016, Washington, D.C.
Poster Title: Impacts of Merge Control Strategies on Freeway Level of Service

Yinan Zheng, Doctoral Candidate (UF)
2nd Place Winner, STRIDE Student Poster Competition, TRB 2016, Washington, D.C.
Poster Title: A Model of Pedestrian Delay at Unsignalized Intersections in Urban Networks

Helene M. Overly Memorial Scholarship, WTS South Florida Group Award

Zhibin Chen, Zhengtian Xu, Mahmood Zangui
(with faculty adviser Dr. Yafeng Yin)
University of Florida
Stella Dafermos Best Paper Award, TRB 2016, Washington, D.C.
Title: Analysis of Advanced Management of Curbside Parking
Transportation Safety Symposium
April 2, 2013, Orlando Florida
Orlando, Florida
Presenters: Dr. Priyanka Alluri, Ms. Ines Aviles-Spadoni, Ms. Nina Barker, Dr. Ilir Bejleri, Dr. Grady Carrick, Dr. Sherrilen Classen, Mr. Charles Goodknight, Dr. Vladimir Paramygin, Mr. Joe Santos, Dr. Ruth Steiner, Dr. Siva Srinivasan
The symposium featured presentations based on a variety of projects related to transportation safety. The topics covered included data, predictive methods, driving simulation, GIS-based analyses, computational methods, older driver needs, safe routes to school, evacuation modeling, and outreach to small agencies.

Computer Lab Workshop/Webinar, Managed Lanes Operations & Simulation using CORSIM
April 29-30, 2013
Presenter: Dr. Dimitra Michalaka, University of Florida

Improved Timeliness and Accessibility to Crash Data & Tools for Safety Webinar
November 29, 2012
Presenter: Dr. Ilir Bejleri, University of Florida

Autonomous & Connected Vehicles in Florida Webinar
March 13, 2014
Presenter: Mr. Ananth Prasad, Secretary, Florida Department of Transportation (2011-2015)

Workshop on Active Traffic Management
May 2015, Florida i3 Transportation Showcase
Presenters: Dr. Lily Elefteriadou, University of Florida; Dr. Nagui Rouphail, North Carolina State University; Dr. Mohammed Hadi, Florida International University

Workshop on Engineering Statistics 101 Training for Safety Analyst
June 11, 2015, Orlando, FL
Presenter: Dr. Priyanka Alluri, Florida International University

Performance Measures in Transportation Planning Webinar
June 11, 2015
Presenters: Jody McCullough, Federal Highway Administration (FHWA); Leigh Blackmon Lane, North Carolina State University (NCSU); Doug McLeod, Florida Department of Transportation (FDOT)

Educational Products Showcase Webinar
June 18, 2015
Presenters: Dr. Jeff LaMondia, Auburn University; Dr. Daniel Rodriguez, UNC Chapel Hill; Dr. Scott Washburn, University of Florida; Dr. Richard Willis, Auburn University

Workshop on Managed Lanes on Arterials
October 19, 2015, Miami, FL
Presenters: Dr. Yafeng Yin and Dr. Toi Lawphongpanich (University of Florida)
Planning for Schools: An Education Module & Cost Calculator to Support School Siting & Transportation Decision Making Webinar  
November 2, 2015  
Presenters: Dr. Ruth Steiner, University of Florida; Mathew Palmer, University of North Carolina at Chapel Hill

Open Access Database for Investigating Body Movements while Performing Driving Tasks Webinar  
March 7, 2016  
Presenter: Dr. Angelos Barmpoutis, University of Florida

Workshop to Introduce Planning Tools for Linking Rural Development and Transportation  
June 13-15, 2016, Chattanooga, TN  
Presenters: Dr. Brian Morton, University of North Carolina Chapel Hill; John Poros, Mississippi State University

ATM Workshop on FREEVAL-DSS  
June 26, 2016, Chicago, IL  
Presenters: Dr. Nagui Rouphail and Dr. Behzad Aghadshi, Institute for Transportation Research & Education (ITRE), North Carolina State University

Safety Analyst Webinar  
Recorded in July 2016  
Presenter: Dr. Priyanka Alluri, Florida International University

Dynamic ATM Strategy Selection Tool (FREEVAL-DSS) Webinar  
May 12, 2017  
Presenters: Dr. Nagui Rouphail and Dr. Behzad Aghadshi, Institute for Transportation Research & Education (ITRE), North Carolina State University

Do’s & Don’ts of Smartphone GPS Data Sources for Cyclist Travel Behavior Webinar  
May 12, 2017  
Presenter: Dr. Kari E. Watkins, Georgia Institute of Technology

STRIDE Research Summer Seminar/Showcase  
June 2, 2017, University of Florida  
Presenters: Dr. Robert Peters, University of Alabama at Birmingham; Dr. Ilir Bejleri, University of Florida; Dr. Siva Srinivasan, University of Florida; Dr. Priyanka Alluri, Florida International University; Dr. David C. Schwebel, University of Alabama at Birmingham; Dr. Brian J. Morton, University of North Carolina at Chapel Hill; Dr. Virginia Sisiopiku and Dr. Ossama Ramadan, University of Alabama at Chapel Hill; Dr. Ruth Steiner, University of Florida

Workshop on School Siting & Collaboration  
June 15 and June 16, 2017, Orlando and Tallahassee, FL  
Presenters: Dr. Ruth Steiner, University of Florida, Mathew Palmer, doctoral candidate, North Carolina State University

From Rumble Strips to Text Stops: Infrastructure Solutions for Distracted Driving Webinar  
June 16, 2017  
Presenters: Dr. Robert Peters, Dr. Despina Stavrinos, Mariah Stasiak University of Alabama at Birmingham

Walking Space: Public Participation in Sidewalk Management & Repair Prioritization Webinar  
June 23, 2017  
Presenter: Dr. Randall Guensler, Georgia Institute of Technology
STRIDE-AFFILIATED WTS & ITE STUDENT CHAPTER ACTIVITIES

Alison Grossman (at right), who is a member of the WTS@GT student chapter, along with her fellow chapter members, participated in a Transportation You event. Local high school girls were introduced to transportation engineering and other STEM fields.

A highlight of FIU’s WTS student chapter was working on a technical project in collaboration with FDOT in 2014. The project was titled “Evaluation of Downtown Pedestrian Priority Zone Strategies”.

Members of NCSU’s ITE student chapter attended the inaugural meeting of the Intelligent Transportation Society of the Carolinas, participating in the discussion sessions and networking events.
Members of the GaTech ITE student chapter host a tour of the Edgewood/Candler Park MARTA Station. The tour was given by Amanda Rhein of MARTA and Eric Kronberg of Kronberg Wall Architecture.

The WTS Florida Gator student chapter adopted a local road in Gainesville, FL. Here are some chapter members during a road cleanup day.

The UAB ITE student chapter was proud to have its treasurer, Jamieson Matthews, selected by the American Society of Civil Engineers as one of the ten talented early achievers featured in the 2014 College Edition of the New Faces of Civil Engineering. Jamieson is pictured above standing to the left of the rest of the current board members: Akash Chaudhari (Vice President), Natalia Barbour (President), Dr. Virginia Sisiopiku (Faculty Advisor), and Sunil Terdalkar (Secretary).

Several members of the NCSU ITE student chapter participate in the semiannual Adopt-a-Highway event.
The WTS Gator Student Chapter at UF invited Marsha Anderson-Bomar for a seminar on “The Language of Leadership.” Anderson-Bomar (at right) is the executive director at Gwinnett Village in Gwinnett County, Georgia.

In 2016, UF WTS members Jessica Wallet (center left) and Megan McGinley (center right) traveled to Chicago for the WTS International Conference. Here they are pictured with Samaneh Khazraieian (at left) and Leila Azizi (at right), both at FIU.

The UF student chapter of the Institute of Transportation Engineers (ITE) won the 2013 International Collegiate Traffic Bowl Grand Championship at the ITE Annual Meeting and Exhibit in Boston. Members of the team were Thomas Chase, Miguel Lugo, Ben Reibach, and Don Watson.

Dr. Virginia Sisiopiku (second from left) along with members of the ITE student chapter. The chapter hosted a Girls in Science and Engineering Day that took place at UAB on May 7, 2016.
2013

Cory Dorman (UF)
Internship Adviser: Dr. Siva Srinivasan (UF)
Project Title: Crash Prediction Method for Freeway Facilities with Managed Lanes

Britton Hammit (University of Wyoming)
Internship Adviser: Dr. Daniel Findley (NCSU)
Project Title: Retaining Wall Assessment Management

Sarah Huestis (UF)
Internship Adviser: Dr. Toi Lawphongpanich (UF)
Project Title: Deployment Strategies of Managed Lanes on Arterials

Amarius Ramirez (University of Delaware)
Internship Adviser: Dr. Mohammed Hadi (FIU)
Project Title: Impact of Modeling Parameters on the HCM-Based Procedure To Estimate Reliability Of Freeway Corridors

Andrew Fell (UF)(NOT PICTURED)
Internship Adviser: Dr. Yafeng Yin (UF)
Project Title: Deployment Strategies of Managed Lanes on Arterials

2014

Kory Harb (UF)
Internship Adviser: Dr. Yafeng Yin (UF)
Project Title: Developing Agent-Based Simulation Models to Learn about the Impact and Implementation of Real-Time Parking Services via Smartphone

Megan McGinley (UF)
Internship Adviser: Dr. Scott Washburn (UF)
Project Title: Analyzing a New Active Traffic Demand Management (ATDM) Software

Brian Pitman (UF)
Internship Adviser: Dr. Scott Washburn (UF)
Project Title: Creating Software to Simulate Emissions Given Off by Cars Using CORSIM

William Woolery (GaTech)
Internship Adviser: Dr. Mike Hunter (Georgia Tech)
Project Title: Working on Research to Identify Changes in Visual Search Patterns of Drivers as Environments Around Become More Complex
TRANSPORTATION RESEARCH INTERNSHIP PROGRAM (TRIP)

2015

Zoe Becerra (Morehead State University)
Internship Advisers: Dr. Gregory Corso (Morehead) and Dr. Mike Hunter (GaTech)
Project Title: An Assessment of Auditory Stimuli to Return Distracted Attention to a Simulated Driving Task

Mario Rojas (FIU)
Adviser: Dr. Xia Jin, FIU
Project Title: Exploring the Potential of Cell Phone Data for Travel Pattern Analysis

Bianca Farias de Souza (UF)
Internship Adviser: Dr. Siva Srinivasan (UF)
Project Title: Analysis of Well-Being Measures of Sadness, Happiness and Stress on Travel Activities (Funded by the Brazilian Mobility Program)

Ethan Stoop (UF)
Internship Adviser: Scott Washburn (UF)
Project Title: Development and Testing of SwashSIM ATDM Software

William Wagner, (UAB)
Internship Adviser: Dr. Despina Stavrinos (UAB)
Project Title: Road Users’ Perception and Reaction to Conceptually Different Driving Hazards

Tianfa Wu (UF)
Internship Adviser: Dr. Lily Elefteriadou (UF)
Project Title: Algorithm for Optimizing Signal Control with Automated Vehicles in the Traffic Stream

NOT PICTURED
Guilherme Moyses Pfeffer (UF)
Internship Adviser: Dr. Siva Srinivasan, UF
Project Title: The Future of Driverless Cars (Funded by the Brazilian Mobility Program)

2016

Fernando Dhabura (FIU)
Internship Advisers: Dr. Albert Gan and Dr. Priyanka Alluri (FIU)
Project Title: Analysis of Bicycle High Crash Locations

Alex Dixon, (ASU)
Internship Adviser: Dr. Ruth Steiner (UF)
Project Title: Florida REDI Counties and Communities: GIS Analysis for Safe Routes to Schools

Matthew Elias (UF)
Internship Adviser: Dr. Mehrdad Shahabi (UF)
Project Title: Exploratory Data Analysis of Taxi Trips

Taehyun Kim (UF)
Internship Adviser: Dr. Scott Washburn (UF)
Projects: (1) Two-lane Highway Analysis (NCHRP 17-65) and (2) Commercial Truck Parking Detection Technology (FDOT)

Daniel Royer (UF)
Internship Adviser: Sarah O’Brien (ITRE, NCSU)
Project Title: Bicycle and Pedestrian Data Collection

Stephen Spana (UF)
Internship Adviser: Dr. Yafeng Yin, UF
Project Title: Developing a Simulation Program (NetLogo)
## 2015 Publications and Presentations

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Year, Conference Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chen, X., Hadi, M., Xiao, Y., &amp; Elefteriadou, L.</td>
<td>Vehicle Emission Models Based on Microscopic Performance Measures Derived Utilizing the MOVES Operating Mode Distribution Method. Submitted for Publication in Transportation Research Record: Journal of the Transportation Research Board.</td>
<td>2015</td>
</tr>
<tr>
<td>Elefteriadou, L.</td>
<td>Signal Control Optimization for Automated Vehicles at Isolated Signalized Intersections. Presented at the 2015 COTA International Conferences of Transportation Professionals, July 25-27, 2015, Beijing, China. Dr. Elefteriadou was an invited plenary speaker.</td>
<td>2015</td>
</tr>
</tbody>
</table>
Transportation Center (UTC) Conference for the Southeastern Region, March 26-27, 2015, Birmingham, AL.


Sisiopiku, V.P. (2015). Transportation Research at UAB. Presented at the ALSITE Meeting, March 12, 2015, Montevallo, AL.


Ramadan, O., & Sisiopiku, V.P. (2016). Evaluation of Merge Control Strategies at Interstate Work Zones under Peak and Off-Peak Traffic Conditions. Journal of Transportation Technologies (Special Issue on Transportation Planning and Management) 6(3):118-130.


Projects Funded by STRIDE

Dynamic Traffic Control Interventions for Enhanced Mobility and Economic Competitiveness
PI: Nagui Rouphail, Ph.D., North Carolina State University
Co-PI: Mohamed Hadi, Ph.D., Florida International University

Signal Timing Optimization with Consideration of Environmental and Safety Impacts
PI: Mohamed Hadi, Ph.D., Florida International University
Co-PIs: Lily Elefteriadou, Ph.D., University of Florida

On-Board-Diagnostics (OBD) Data Integration into Traffic Microsimulation for Vehicle-Specific Fuel Use and Emissions Modeling & In-Vehicle App Testing
PI: Scott Washburn, Ph.D., University of Florida
Co-PIs: Christopher Frey, Ph.D., North Carolina State University; Nagui Rouphail, Ph.D., North Carolina State University

Using Crowdsourcing to Prioritize Bicycle Route Network Improvements
PI: Jeffrey J. LaMondia, Ph.D., Auburn University
Co-PI: Kari Watkins, Ph.D., Georgia Institute of Technology

Distracted Driving – It Is Not Always a Choice.
PI: Mike Hunter, Ph.D., Georgia Institute of Technology
Co-PI: Gregory M. Corso, Ph.D., Morehead State University

GIS-Based Instructional Tool for Crash Prediction Methods
PI: Ilir Bejleri, Ph.D., University of Florida
Co-PI: Siva Srinivasan, Ph.D., University of Florida

Investigating the Effect of Drivers’ Body Motion on Traffic Safety
PI: Angelos Barmpoutis, Ph.D., University of Florida
Co-PIs: Alexandra Kondyli, Ph.D., University of Florida; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham

Applying Livability Performance Measures to Transportation Plans & Projects
PI: Leigh Blackmon Lane, Ph.D., North Carolina State University

Engineers Change the World: A Hands-on Workshop for 13- to 18-Year-Old Girls
PI: James Martin, Ph.D., North Carolina State University
Co-PI: Nina Barker, University of Florida

Teaching Schoolchildren Pedestrian Safety: A Pragmatic Trial Using Virtual Reality
PI: David Schwebel, Ph.D., University of Alabama at Birmingham
Co-PIs: Daniel Rodriguez, Ph.D., University of North Carolina at Chapel Hill; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham

School Transportation: Development of an Education Module
PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill
Co-PI: Ruth Steiner, Ph.D., University of Florida

Quantifying the Costs of School Transportation
PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill
Co-PIs: Ruth Steiner, Ph.D., University of Florida; Jeff Tsai, Ph.D., North Carolina State University

Empirically-Based Performance Assessment & Simulation of Pedestrian Behavior at Unsignalized Crossings
PI: Bastian Schroeder, Ph.D., North Carolina State University
Co-PIs: Lily Elefteriadou, Ph.D., University of Florida; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham

Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes
PI: Jorge Laval, Ph.D., Georgia Institute of Technology
Co-PIs: Yafeng Yin Ph.D., University of Florida; Yingyan Lou Ph.D., University of Alabama
Signalized Intersection Simulation Program for Education
PI: Scott Washburn, Ph.D., University of Florida

Investigation of ATDM Strategies to Reduce the Probability of Breakdown
PI: Mohammed Hadi, Ph.D., Florida International University
Co-PI: Lily Elefteriadou, Ph.D., University of Florida

Engaging Engineering Students with Transportation Safety: An Educational Module
PI: Lesley Strawderman, Ph.D., Mississippi State University

A Naturalistic Driving Study across the Lifespan
Co-PIs: Despina Stavrinos, Ph.D., and Lesley Ross, Ph.D., University of Alabama at Birmingham

Development of Educational & Professional Training Modules on Green/Sustainability Design & Rating Systems for Neighborhood Development & Transportation
PI: Robert W. Peters, Ph.D., University of Alabama at Birmingham
Co-PI: Adjo Amezkudi, Ph.D., Georgia Institute of Technology

Developing a New Course for Public Transportation Education
PI: Kari Edison Watkins, Ph.D., Georgia Institute of Technology
Co-PI: Jeffrey LaMondia, Ph.D., Auburn University

Automated Sidewalk Quality & Safety Assessment System
PI: Randall Guensler, Ph.D., Georgia Institute of Technology

Development of Pedestrian & Bicycle Transportation Course Modules
PI: Daniel Rodriguez, Ph.D., University of North Carolina at Chapel Hill
Co-PI: Rod Turochy, Ph.D., Auburn University

Consequence Based Route Selection for Hazardous Material Cargo: GIS-Based Time Progression of Environmental Impact Radius of Accidental Spills
PI: Berrin Tansel, Ph.D., Florida International University
Co-PIs: Adjo Amezkudi, Ph.D., Georgia Institute of Technology; Nasim Uddin Ph.D., University of Alabama at Birmingham

Analyzing the Impact of Carbon Regulatory Mechanisms on Supply Chain Management
PI: Sandra Eksioglu, Ph.D., Mississippi State University

Co-PI: Joseph Geunes, Ph.D., University of Florida

Engineering: It’s for Girls, Too!
PI: James Martin, PE, North Carolina State University
Co-PI: Lily Elefteriadou, Ph.D., University of Florida

A Regional Land Use Transportation Decision Support Tool for Mississippi
PI: Brian Morton, Ph.D., University of North Carolina at Chapel Hill
Co-PIs: John Poros, Ph.D., Mississippi State University; Joe Huegy, Ph.D., North Carolina State University

Towards a Holistic Understanding of Quality of Life: An Analysis of Activity-Travel Patterns on Non-Mid-week Days
PI: Siva Srinivasan, Ph.D., University of Florida
Co-PI: Xia Jin, Ph.D., Florida International University

Development of Graduate Level Course on Sustainable Asphalt Pavements
PI: James Richard Willis, Ph.D., Auburn University

Technology Transfer: Distracted Driving – Overview Summary & Assessment of Ways to Alleviate
PIs: Robert Peters, Ph.D., Despina Stavrinos, Ph.D., University of Alabama at Birmingham
Educational & Professional Training Modules on Green Sustainability Design & Ratings Systems Workshop PI: Robert Peters, Ph.D., University of Alabama at Birmingham

Sidewalk Survey Implementation for the Southeast Region PI: Randall Guensler, Ph.D., Georgia Institute of Technology

Evaluating & Relationship between School Site Selection, Residential Developments & School Transportation in North Carolina PIs: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill; Ruth Steiner, Ph.D., University of Florida

Practitioner Workshop on School Siting & School Transportation Impacts PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill

Evaluating Child Restraint System (CRS) Installation using Interactive Visual Presence PI: David Schwebel, Ph.D., University of Alabama at Birmingham

Cycle Atlanta SWIFT Development PI: Kari Watkins, Ph.D., Georgia Institute of Technology

Infrastructure Adaptation Planning for Autonomous Vehicles PI: Yafeng Yin, Ph.D., University of Florida

Workshops on Dynamic ATM Strategy Selection Tool (FREEVAL-DSS) PI: Nagui Rouphail, Ph.D., North Carolina State University

Extension of Signal Timing Optimization with Consideration of Environmental & Safety Impacts (Extension from 2013 project) PI: Mohammed Hadi, Ph.D., PE, Florida International University; Lily Elefteriadou, Ph.D., University of Florida

Evaluation of Traffic Control Options in Work Zone PI: Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham

Empowering Girls in Science and Engineering PI: Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham

Bike & Place: A New Tool for Designing Active, Place-Making Transportation Networks – An Exploratory Study PI: Brian Morton, Ph.D., University of North Carolina at Chapel Hill

Technology Transfer Workshops Based on A Regional Land Use Transportation Decision Support Tool for Mississippi PI: Brian Morton, Ph.D., University of North Carolina at Chapel Hill

Development of Support Systems, Instructional Modules, & A Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House PI: Siva Srinivasan, Ph.D., University of Florida

Selected Cost Share Projects

Modeling, Implementation, & Validation of Arterial Travel Time Reliability PI: Lily Elefteriadou, Ph.D., University of Florida FDOT Project No: BDK77-977-20

Planning for Incorporating Ancillary Demands in the Next Generation FSUTMS PI: Siva Srinivasan, Ph.D., University of Florida FDOT Project No: BDK77-931-16

Comparison of Methods for Measuring Travel Time at Florida Freeways & Arterials PI: Lily Elefteriadou, Ph.D., University of Florida FDOT Project No: BDV32-977-02

Before and After Implementation Studies of Advance Signal Technologies in Florida PI: Lily Elefteriadou, Ph.D., University of Florida FDOT Project No: BDV32-977-05

Policy Implications of Automated Vehicle Technology PI: Siva Srinivasan, Ph.D., University of Florida FDOT Project No: BDV32-977-06

Evaluation of Arterial Corridor Improvements & Traffic Management Plans in Florida PI: Lily Elefteriadou, Ph.D., University of Florida FDOT Project No: BDV31-977-44
K-12 Workforce Development Projects

**Development and Testing of Optimized Autonomous & Connected Vehicle Trajectories at Signalized Intersections**
PI: Lily Elefteriadou, Ph.D., University of Florida
Co-PIs: Carl Crane, Ph.D., University of Florida; Sanjay Ranka, Ph.D., University of Florida
FDOT Project No: BDV31-977-45

**Local Technical Assistance Program (LTAP) 2015/2016**
PI: Maria Cahill, T2 Director, University of Florida Transportation Institute (UFTI)
FDOT Project No: BDV33-977-03

**Warrants, Design, & Safety of Road Ranger Service Patrols**
PI: Yafeng Yin, Ph.D., University of Florida
FDOT Project No: BDV31-977-52

**Improvements to the FDOT Travel Time Reliability Model for Freeway Analysis**
PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV32-934-01

**K-12 Workforce Development in Transportation Engineering at Florida International University**
PI: Berrin Tansel, Ph.D., Florida International University
(2012)

**Family Engineering Nights**
PI: Eric Heiselt, Director of Outreach, Mississippi State University
(2012)

**LEGO Robot Vehicle After School Workshops: Transportation Engineering Problem Solving (part 1)**
PI: James B. Martin, PE, North Carolina State University
(2012)

**LEGO Robot Vehicle After School Workshops: Transportation Engineering Problem Solving (part 2)**
PI: James B. Martin, PE, North Carolina State University
(2013)

**K-12 Workforce Development Activities**
PI: Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
(2013)

**UAB Transportation Workforce Development**
PI: Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
(2012)

**UF Workforce Development Efforts**
PI: Leslie Washburn, PE, University of Florida
(2012)

**Engineering Initiative with Centennial Place Academy**
PI: Yanzhi “Ann” Xu, Ph.D., Georgia Institute of Technology
(2013)

**Lego Robot Vehicle After School Workshops: Transportation Engineering Problem Solving (part 2)**
PI: James B. Martin, PE, North Carolina State University
(2013)

**Early Workforce Development Efforts**
PI: Leslie Washburn, PE, University of Florida
(2013)

**Empowering Girls in Science & Engineering**
PI: Dr. Virginia Sisiopiku, University of Alabama at Birmingham
(2016)