

SWUTC News

Texas A&M University • University of Texas at Austin • Texas Southern University

Outstanding Student Awards

Each year, in addition to selecting the overall SWUTC Outstanding Student to represent the SWUTC at TRB, the SWUTC honors two other students for their academic, professionalism and leadership achievements. Each of the three major awards presented yearly at the SWUTC - the Robert Herman Outstanding Student Award, the William J. Harris Outstanding Ph.D. Student Award and the Naomi Ledé Outstanding Masters Student Award - comes with a \$1,000 cash award.

Robert Herman Outstanding Student Award

Mr. Xiugang Li is a PhD student in the Zachry Department of Civil Engineering at Texas A&M University and a fellow in the Transportation Scholars Program of the Southwest Region University Transportation Center (SWUTC). A registered Professional Engineer in the State of Louisiana, Mr. Li has a Doctor of Highway Engineering (D.E.) from Southeast University in Nanjing, China. Prior to coming to Texas A&M, he served as an Adjunct Assistant Professor at Southern University in Baton Rouge and also a Postdoctoral Research Associate at Texas Southern University, a consortium member of the SWUTC.

A student member of ASCE and ITE, Mr. Li has research interests in transit, traffic operations, air quality, and highway safety analysis. He has published more than 20 journal and conference proceedings papers in these areas. Currently he serves as a Research Associate on a SWUTC project "Performance Assessment and Comparison between Fixed and Flexible Transit Services for Different Urban Settings and Demand Distributions".



Mr. Li is a supremely dedicated individual with outstanding academic and research capabilities. His future career as a researcher/teacher in transportation will extend and improve upon the high quality of contributions he has already made to our profession. Mr. Li's major professor at Texas A&M University is Dr. Luca Quadrioglio. Mr. Li was selected to represent the SWUTC at the annual UTC Outstanding Student of the Year Awards ceremony during TRB's Annual Meeting in January, 2008.

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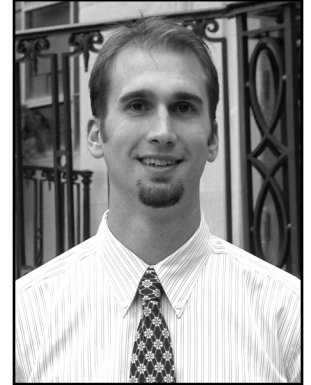


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William J. Harris Outstanding Ph.D. Student Award

Dr. Nicholas E. Lownes began his academic career at the University of Texas at Austin in August of 2003 in pursuit of both a master's degree and Ph.D. His years in Austin followed those spent at Iowa State University where he earned his bachelor's of science degree in civil engineering and two years spent at Fort Polk, Louisiana as a consulting engineer to the United States Army.

While pursuing his advanced degrees at the University of Texas, Dr. Lownes undertook several demanding research assignments. His final research effort funded by the SWUTC "The Commuter Rail Circulator Network Design Problem: Formulation, Solution Methods, and Applications" produced an innovative, very useful optimization tool that made a significant contribution to the state-of-the-art. This work has also led to several presentations and scholarly papers that are currently in review. Through his participation in the student chapters of the Institute of Transportation Engineers, ITS America and the American Society of Civil Engineers, Dr. Lownes' resolve was strengthened to acquire a position upon graduation where he could be instrumental in recruiting and training the next generation of transportation professionals.



After receiving his Ph.D. in August 2007, Dr. Lownes accepted a position with the University of Connecticut as an assistant professor of transportation engineering where he is currently engaged in the development of a transportation lab in conjunction with the Center for Transportation and Urban Planning (CTUP), preparing for the new National Center of Excellence of Transportation Security at UConn and advising two graduate students in addition to teaching undergraduate engineering statistics and economics and developing a graduate-level transportation network analysis course.

Dr. Lownes' major professor while at the University of Texas was Dr. Randy Machemehl.

Naomi Ledé Outstanding Masters Student Award

After graduating *Cum Laude* with a Bachelors of Science degree from Embry-Riddle Aeronautical University, **Ms. Yasmina Soria** enrolled in the graduate program of the Department of Transportation Studies at Texas Southern



University in the fall of 2006 and immediately impressed her professors with her quality academic work, and her high energy, focus, enthusiasm and attention to detail that she applies to each assignment. While excelling academically at TSU, Ms. Soria was also contributor to several Center for Transportation Training and Research (CTTR) research efforts through conducting literature reviews, data collection and surveys. Her specific research efforts include safe routes to school, communication options during emergency events, runway incursions and currently helping with a public transportation project in south Texas.

Ms. Soria participated in an internship during the summer of 2007 with the Association of Airline Pilots in Washington D.C. She also submitted a research paper to a major aviation organization and gained recognition for its submittal. She has impressed those in the aviation profession and has been asked to participate in an upcoming panel based on her past contributions. Ms. Soria's commitment to the aviation profession is evident in the number of professional credentials that she holds, and the number of academic and leadership scholarships and awards she has acquired. She also volunteers with the *TSU Flight Team* and recently assisted with the *Wings Over Houston Air Show*.

Ms. Soria was selected for the Ledé Award in recognition of her academic commitment, outstanding skills and stellar accomplishments. Her major professor at TSU is Dr. Carol Lewis.

SWUTC Researcher Team Receives TRB Award

Dr. Chandra Bhat, a key SWUTC researcher and civil engineering professor at the University of Texas at Austin, along with co-authors Dr. Jessica Guo a former Ph.D. student, and Rachel Coperman, a current Ph.D. and Advanced Institute student, received the 2007 Pyke Johnson Award from the Transportation Research Board (TRB) for their outstanding paper in transportation systems planning and the environment. The paper discusses the increasing interdependency of transportation and public health by highlighting the adverse effects of motorized transportation dependency on the environment and public health, and identified possible benefits of non-motorized transportation, like walking and biking that can increase social equity, improve personal health, and reduce traffic congestion and vehicular emissions. The paper also examines the effects of demographics and urban form on motorized transportation dependency and non-motorized transportation use.

SWUTC Researcher Receives TRB Committee Appointment

Dr. Jorge Prozzi, Assistant Professor at the University of Texas at Austin, has been named Chair of the *Transportation Research Board's Committee on International Activities*. This committee is concerned with the evolution of an international perspective in all facets of all modes of transportation within the scope of the Board. His appointment runs until April 14, 2010.

SWUTC Associate Director Honored

Dr. Randy Machemehl, Associate Director for SWUTC research at the University of Texas at Austin was selected for membership into the Civil, Architectural and Environmental Engineering Academy of Distinguished Alumni at the University of Texas at Austin. This honor recognizes Dr. Machemehl's achievements and outstanding contributions to the field of Civil Engineering. The induction ceremony was held on November 9th, 2007 during the annual Alumni Banquet.

New Member Joins SWUTC Executive Committee

Effective September 1, 2007, **Dr. Melissa Tooley** began serving as a member on the SWUTC Executive Committee. Dr. Tooley joined TTI in May, 2006 and is the Director of the University Transportation Center for Mobility (UTCM) at TTI. She is the former Director of the Mack-Blackwell National Rural Transportation Center (MBTC) at the University of Arkansas, and she served as an Assistant Professor of Civil Engineering at the University of Arkansas and the University of Florida. She has a decade of civil engineering consulting experience on projects involving roadway design, flood control, construction management, forensic engineering and civil infrastructure improvements.

Dr. Tooley is a past President of the Council of University Transportation Centers (CUTC) and immediate past President of ARTBA's Research and Education Division, where she currently serves on its Board of Directors. She is a member of the Board of Regents of the Eno Transportation Foundation and is a former Eno Transportation Fellowship Recipient. A native of Little Rock, Arkansas, she was selected "Young Engineer of the Year" in 1995 by the Arkansas Society of Professional Engineers (ASPE). She serves on two Transportation Research Board committees – Planning Needs and Requirements for Small and Medium Sized Communities and the TRB Committee for Education and Training. Dr. Tooley was a Master's and Ph.D. level recipient of the Eisenhower Fellowship, sponsored by the Federal Highway Administration. As a graduate student, she was selected as MBTC's Student of the Year in 1994.



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SWUTC Researcher Selected to Attend National Symposium

Dr. Travis Waller of the University of Texas at Austin was selected to take part in the National Academy of Engineering's (NAE) 13th annual U.S. Frontiers of Engineering symposium. This symposium brings together young engineers from industry, academia and the government sectors. "Frontiers of Engineering is a proven mechanism for traversing engineering disciplines," said NAE President William A. Wulf. "By exposing bright young minds to developments in areas other than their own -- and giving them lots of time to interact -- Frontiers enables advances in approaches and thinking that would not have occurred otherwise."

The symposium was held September 24-26, 2007 at Microsoft Research in Redmond, Washington and examined trustworthy computer systems, safe water technologies, modeling and simulating human behavior, biotechnology for fuels and chemicals, and the control of protein conformations.

New Research Highlights

*This year, the SWUTC selected 36 new research studies to fund.
Three of these are highlighted below.*

Texas Southern University Study Evaluates Evacuation Models

Evacuations from Hurricanes Katrina, Rita and Wilma in 2005 illuminated the issues of evacuating large numbers of residents via urban areas roadways and public transportation systems. Problems arose from people not observing the designated evacuation zones and protocol. This was particularly acute in the Houston area when large numbers of residents of that city failed to wait the exiting of people from Galveston Island and other coastal communities. Consequently, the roadways were clogged inland and residents in extremely high risk areas were not able to leave. Of note during Hurricane Katrina, was the number of individuals without automobile availability, who had no transportation to evacuate once warnings were issued. Texas' Governor Rick Perry initiated a Task Force in the fall of 2005 to evaluate the occurrences of the Hurricane Rita experiences and make recommendations. The four focal areas were: 1) Command, Communication and Control, 2) Fuel Availability, 3) Traffic and Transportation and 4) People with Special Needs (anyone who can not self-evacuate). Much work has occurred to improve evacuation times and experiences when the need to evacuate occurs again. Unanswered questions remain, however, including how long will it take to evacuate "x" number of individuals under a given set of circumstances. A number of models exist that purport to forecast evacuation volumes under a variety of scenarios. In this SWUTC study, **Dr. Carol Lewis** of Texas Southern University will conduct a review of these models and their potential application. This will benefit a number of communities still making decisions about the best methods and routes for evacuation.



University of Texas Researcher Focuses on Tolling Issues

With passenger and commercial vehicle volumes continuing to grow, America's already crowded highway network is becoming increasingly more congested. Since nearly all U.S. freight travels by truck at some point in its supply chain, in a growing worldwide market place, ensuring the continued safe and efficient flow of this freight is vital to maintain the health and competitiveness of the U.S. economy. In many urban areas, traffic levels are reaching critical levels of congestion that must be addressed; according to the Federal Highway Administration, time spent idling on these highways by trucks already costs the U.S. economy nearly \$8 billion per year. Particularly in sectors of the trucking industry where delivery time reliability is vital, urban congestion is an important concern.



MoDOT Rendering of I-70 TOT Lane

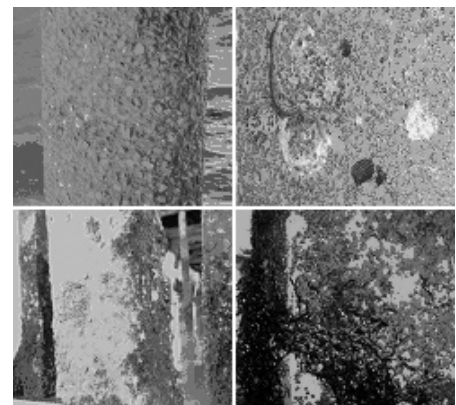
To improve freight flows through such a region, the state of Georgia plans to construct a network of truck-only toll (TOT) lanes. Truck-only toll facilities allow trucks to pay a fee to travel in a limited access lane adjacent to a "free" facility; this lane uses dynamic tolling to control congestion levels and maintain a minimum level of service. Feasibility studies examining pricing for these facilities have used toll rate structures within which rates vary according to real-time traffic information; however, they did not allow for any variation between trucks and truck classes. With continuing development of advanced technologies already widely applied in truck applications for vehicle identification and weigh-in-motion (WIM), a system that would apply both of these to allow for dynamic pricing within which rates would vary according to real-time traffic, real-time weight, and vehicle identification information is becoming increasingly feasible.

The purpose of this study being conducted by **Dr. Michael Walton** is to devise a methodology for developing toll rates for application on truck-only toll (TOT) lanes.

Texas A&M University Research Team Examines Deterioration of Reinforced Concrete Structures

The Texas Department of Transportation constructs many concrete structures; in fact, the large majority of bridges in Texas are made of some type of reinforced concrete (i.e., convention cast-in-place, prestressed, etc). Over the past several years, structural deterioration has become a critical issue affecting the entire transportation infrastructure network. It has been observed that the loss of structural capacity with time is caused mainly by chloride ingress, which leads usually to steel corrosion (loss of effective cross-section of steel), concrete cracking, loss of bond (aggregate-cement paste) and spalling. The control of these types of damage requires implementing inspection, maintenance and rehabilitation programs resulting in high costs to the state's taxpayers. Clearly, a more economical approach is to prevent deterioration and the resulting high cost of the rehabilitation and replacement.

Only some mechanisms of deterioration of reinforced concrete structures are relatively well known. Recently, inspectors have identified the microbial attack as a unique and unknown form of deterioration occurring in reinforced concrete structures located in aggressive environments. It has been found that biodeterioration of concrete structures may increase concrete porosity and accelerate diffusion and corrosion processes causing



Bridge columns exhibiting microbial induced deterioration

a significant loss of capacity. Evidence of this phenomenon has been obtained from researchers with expertise in civil engineering materials, microbiology and personnel from transportation agencies. Similar conclusions along these lines have also been reported in the literature (Bastidas et. al. 2007; Sanchez-Silva and Rosowsky, 2007). This SWUTC research effort headed by **Dr. David Trejo** is providing preliminary investigations into the *microbial induced deterioration* (MID) problem by: (1) identifying the microbes, (2) defining the environmental factors that contribute to this process, (3) understanding the mechanisms of deterioration, (4) making reliability estimations of changes in the structure's remaining life and (5) identifying potential methods for mitigating this microbial induced damage, and thereby prevent the high costs of structural rehabilitation or replacement. The research team's long-term goal is to address this problem by elucidating the biological mechanisms mediating MID in concrete, and developing novel mitigation and prevention protocols.

Education Highlights

Former TAMU Transportation Scholars Program Graduate Speaks to Students

Mr. Justin Winn of Wilbur Smith Associates and a 2005 graduate of the SWUTC Advanced Institute Program at Texas A&M University returned to campus on October 2nd, to make a presentation to the student chapter of the Institute of Transportation Engineers. In his presentation entitled "Using Tolls to Fund New Roadways and Estimation of Toll Revenue", Mr. Winn discussed various traditional roadway funding methods, including roadway user fees and revenue from motor fuel taxes. He then analyzed why these traditional methods are becoming less feasible. Following this discussion, he introduced two roadway funding methods based on tolls. These methods are 1) traditional toll road funding and 2) public-private partnerships. For traditional toll road funding method, agencies issue bonds to finance roadway construction. While for public-private partnerships method, private companies pay for construction through loans, bonds, and so on. Mr. Winn also discussed in detail how these two methods work, their pros and cons and examples of these two methods.

Important Upcoming Deadlines

University of Texas at Austin Undergraduate Summer Internship in Transportation (USIT 2008)

Deadline for submitting an application to participate in the summer 2008 program is March 3, 2008. This program is an intense 11-week program that provides unique insight into transportation engineering education and a possible career in the field. Financial support is provided. Please visit <http://swutc.tamu.edu/utaeducation.htm> for more information.

Texas A&M University Undergraduate Transportation Scholars Program (UTSP 2008)

Deadline to submit an application for the summer 2008 program is February 29, 2008. This program is a 10-week program designed to introduce transportation to upper-level engineering students and provide them with a research/work experience that will help them get a head start on their careers. Financial support is provided. Please visit <http://swutc.tamu.edu/tamu-education.htm> for more information.

TAMU Transportation Scholars Program Sponsors Student Field Trip

The Texas A&M ITE Student Chapter with support from the Southwest Region University Transportation Center sponsored a field trip to the Port of Houston on October 19th, 2007. While at the port, the students toured the Barbour's Cut Terminal Container Facility, heard a presentation at the port headquarters about port operations from Charlie Jenkins of the Port of Houston Authority and toured the port on the *Sam Houston* tour boat.



TAMUite Students at Port of Houston

SWUTC Funds Development of New Graduate Course in Transportation Policy and Politics

It is increasingly important for transportation professionals to be familiar with policy and political issues and processes relevant to their fields. At this time, there are no course offerings at Texas A&M University covering transportation policy and politics. Considering the focus on transportation in both research and education the availability of such a course could significantly enhance these existing activities. This course offering being developed by **Dr. Eric Lindquist** of the George Bush School of Government & Public Policy at Texas A&M University would provide additional insight into problems and opportunities facing transportation professionals in all levels of government and private practice. This project is systematically assessing the market for a graduate level course in transportation policy and politics at TAMU, developing relevant materials for such a course (syllabi and reading lists), and providing recommendations for implementing this course.

Congratulations!

Armin Kheirmand and **Kamarah Scott**, both SWUTC research and education program graduate students at Texas Southern University, on their being selected to receive Eisenhower Fellowships.

and

Ricardo Aitken and **Stephen Boyles**, both Advanced Institute graduate students at the University of Texas at Austin, on their receiving a \$1,000 ITS Texas Scholarships for Graduate Study in Intelligent Transportation Systems at the ITS Texas 2007 Annual Meeting on November 17th.

Where Are They Now?

Congratulations to the recent graduates of the SWUTC Education Program who have joined the transportation workforce.

University of Texas at Austin Graduates

Allison Interrante - Engineer for URS Greiner Corporation

Kristen Torrance - Engineer for Parsons Brinkerhoff

Nicholas Lownes - Assistant Professor at University of Connecticut

Texas A&M University Graduates

Geoffrey Chum - Engineer II for Lockwood, Andrews & Newnam, Inc.

Thomas Hartmann, Analyst for Kimley-Horn and Associates

Benjamin Sperry, Engineering Research Associate for Texas Transportation Institute

Cameron Williams, Graduate Engineer for Walter P. Moore and Associate, Inc.

Lindsay Armstrong Liggett, Engineering-in-Training, Jacobs Engineering

Rachel Stensrud, Estimator, Zachry Engineering

Kevin Lipnicky, Engineer, Half Associates

During the first four months of this fiscal year, the SWUTC has been actively building relationships with each of the UTC's in Region 6 including visits to each center to discuss ideas for collaboration. At each of these visits, the agenda focused upon the establishment of collaborative efforts among the UTC's in the region to coalesce selected topics underway in the various education, research and technology transfer programs within each center. Also discussed was the identification of academic courses, seminars, and lectures that can be exported from one UTC to universities of UTC's on other campuses. In addition, the development of a menu of student-based activities to familiarize students with the faculty, campuses, and programs of the various UTC's in our region were examined.

The first meeting was held in Oklahoma City in October 2007 when Dock Burke met with leadership members of the Oklahoma Transportation Center to discuss the final language for the *Memorandum of Agreement*, expanded project collaborations (particularly in materials), and a region-wide conference or symposium among the UTCs, involving interested faculty members, research professionals, and students.

In late October 2007, Melissa Tooley, SWUTC Executive Committee member and Director of the newly-established UTCM, held discussions with the leadership members of the Mack-Blackwell Rural Transportation Center at the University of Arkansas in Fayetteville. She met with Heather Nachtmann and Jack Buffington to discuss ways the UTCs could collaborate. Specifically, the Mack-Blackwell Center is interested in a regional meeting that includes a student symposium. Further discussions included research collaboration, sharing of expertise between the SWUTC and Mack-Blackwell on boarder initiatives, and cooperative studies involving international freight movements and economic impacts on the trucking industry.

The next meeting was held in mid-December at LSU where Melissa Tooley met with Skip Paul, director of the Louisiana University Transportation Center. They discussed collaborative research agenda items, including materials and pavements research. A follow-up visit to the SWUTC by LUTC to discuss common project interests in transportation research and education is planned for March 2008. Finally, the SWUTC and the newly established UTC at the Texas Transportation Institute, the University Transportation Center for Mobility (UTCM) have harmonized the research and education program initiatives included at each UTC. The directors of the SWUTC and UTCM also serve on the Executive Committee of these two centers, which increases the organizational closeness of the SWUTC and UTCM.

RITA Administrators Visit SWUTC, UTCM and TTI

Paul Brubaker's December 11-12 visit to the Texas Transportation Institute (TTI) was his first since being sworn in as RITA Administrator last summer. RITA Associate Administrator for Research, Development and Technology Jan Brecht-Clark accompanied him on the visit. Dr. Brecht-Clark oversees the University Transportation Centers program, which includes TTI's Southwest University Transportation Center (SWUTC) and University Transportation Center for Mobility (UTCM). Administrator Brubaker and Dr. Brecht-Clark were presented overviews of SWUTC and UTCM, heard presentations from some of the key researchers and graduate students from both UTCs, and toured TTI's Translink® Laboratory, the Materials Lab and the Riverside Research Facility.



(L to R) Dr. Amit Bhasin (TTI/SWUTC), Administrator Paul Brubaker (RITA), Dr. Herb Richardson (TTI) and Dr. Jan Brecht-Clark (RITA) tour the TTI Materials Lab

"TTI is on the cutting edge of transportation research, and I want to thank you for the work you do," Brubaker said during his visit. He pointed out that transportation costs for American families exceed health care and food costs. Only housing costs more.

"Dr. Jan Brecht-Clark and I found the briefings and exchanges very useful to understanding the major contributions the Institute is making to improve the safety and performance of our national transportation infrastructure. Moreover, TTI is performing a great service to the nation and the state of Texas by training the next generation of national, state and local transportation leaders. I was delighted to get to meet some of these graduate engineers and PhD candidates and share the Department's priorities and commitment to ensuring opportunity to the future transportation experts," Brubaker said. "This opportunity to learn is made available through federal, state and privately supported transportation research. But that research also provides us with critical information to improve our investment decisions and in many cases saves lives and improves the efficiency of the supply chain which improves our national competitiveness."

Technology Transfer Highlights

SWUTC Co-Sponsors Annual Deer-Crash Fall Symposium

Nationwide there are an estimated one million deer-vehicle crashes every year, which account for about \$1 billion in damage. In the continuing effort to reduce the number of collisions between deer and vehicles, a symposium - headed up by SWUTC researcher Keith Knapp - was held at the New York State Department of Transportation in Schenectady on October 29th, 2007.

The speakers for the symposium included Knapp, Mary Gray of the Federal Highway Administration, Patricia White of the Department of Wildlife, Patricia Cramer of Utah State University, Marcel Huijser of the Western Transportation Institute and David Jared of the Georgia Department of Transportation.

In addition to the speakers, members of the Deer-Vehicle Crash Information Center Pooled Fund Project attended the symposium. The pooled fund is made up of representatives from Federal Highway Administration and eight state departments of transportation which have contributed funds for implementing research projects aimed at reducing the number of deer-vehicle crashes.

Visit www.deercrash.com for more information. The Southwest Region University Transportation Center and the Center for Transportation Safety at the Texas Transportation Institute were co-sponsors of this symposium.

SWUTC Researchers Hit the Road

Dr. Lei Yu, Dr. Fengxiang Qiao and Mr. Ruixin Ge of Texas Southern University presented *Fuzzy Evaluation of Contra-Flow Plans in Texas Medical Center* to the 12th Online World Conference on Soft Computing in Industrial Applications (WSC12), October 16th, 2007.

Dr. Tim Lomax of Texas A&M University presented *Research Perspective on Congestion and System Performance* to the TRB sponsored Research Issues in Freight Transportation - Congestion and System Performance Conference held in Washington, D.C. on October 22-23, 2007.

Dr. Juan Villa of Texas A&M University presented *North American Transportation Corridors* to the 2007 Canadian Transportation Research Forum Conference - Future Development of NAFTA Surface Freight Transportation Infrastructure and Operations held in Ottawa, Ontario on October 26th, 2007.

Dr. Kara Kockelman and Mr. Deepak Kumar of the University of Texas at Austin presented *Tracking the Size, Location and Interaction of Businesses: Microsimulation of Firm Behavior in Austin, Texas* to the 54th Annual North American Meeting of the Regional Science Association International in Savannah, Georgia on November 12th, 2007.

Recently Published Reports and Journal Articles

Each of the following publications are available in PDF format at

<http://swutc.tamu.edu/publications.htm>

Comparing Microscopic Activity-Based and Traditional Models of Travel Demand: An Austin Area Case Study, Laura B. McWethy and Kara M. Kockelman, University of Texas at Austin, September 2007, 134 pp. (SWUTC #167862-1)

Testing and Evaluation of Pedestrian Sensors, Shawn Turner, Dan Middleton, Ryan Longmire, Marcus Brewer, and Ryan Eurek, Texas A&M University, September 2007, 42 pp. (SWUTC #167762-1)

Development and Evaluation of a Multi-Agent Based Neuro-Fuzzy Arterial Traffic Signal Control System, Yunlong Zhang, Yuanchang Xie and Zhirui Ye, Texas A&M University, September 2007, 122 pp. (SWUTC #473700-00092-1)

Evaluating Mexican Truck Safety at the Texas/Mexico Border, Mike Schofield and Robert Harrison, University of Texas at Austin, September 2007, 26 pp. (SWUTC #473700-00071-1)

Developing Appropriate Freight Performance Measures for Emerging Users, Mike Schofield and Robert Harrison, University of Texas at Austin, September 2007, 46 pp. (SWUTC #473700-00073-1)

Transportation Challenges and Issues Facing Rural Texas: A Methodology to Prioritize Rural Transportation Needs, Jolanda Prozzi and Robert Harrison, University of Texas at Austin, September 2007, 56 pp. (SWUTC #473700-00068-1)

Short Sea Shipping Initiatives and the Impacts on the Texas Transportation System: Technical Report, C. James Kruse, Juan Carlos Villa, David H. Bierling, Manuel Solari Terra and Nathan Hutson, Texas A&M University, October 2007, 98 pp. (SWUTC #0-5695-1)

Trucking Industry Response in a Changing World of Tolling and Rising Fuel Prices, Sharada Vadali, Rajorshi Sen Gupta, K.N. Womack and Madhav Pappu, Texas A&M University, December, 2007, 162 pp. (SWUTC #167167-1)

Recently Published Journal Article Based on SWUTC Research
(not available in PDF format)

I. Damnjanovic, J. Duthie and S. T. Waller of the University of Texas at Austin published *Modeling Value of Network Flexibility*, in *Construction Management and Economics*, September 2007.



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