

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

Dr. Alex Alvarez joined the Ph.D. program at Texas A&M University in August 2005 after receiving his B.S. in Civil Engineering from the National University of Columbia in 1998 and his Master's in Civil Engineering from the University of Los Andes in Columbia in 2001.

While at Texas A&M, his research and Ph.D. activities focused on improving the mix design of permeable friction course mixtures. Dr. Alvarez was a key researcher on a Texas Department of Transportation (TxDOT) funded study that evaluated and recommended improvements for porous friction course (PFC) mix design. This project involved conducting the state-of-the-practice mix design analysis and evaluating each part of the design using advanced mixture characterization tools. Including X-ray computed tomography to determine air void (AV) distribution and interconnected AV, and bond strength calculations with and without water present using surface energy components of both asphalt binder and aggregates. For this project, Dr. Alvarez recommended significant improvements for PFC mix design with respect to evaluation of volumetrics, functionality, and durability. Dr. Alvarez continued his work with PFC mixtures with a SWUTC funded study that further investigated the internal microstructure of PFC to enhance mix design and construction of these hot mix asphalt mixtures. These research activities led to production of ten journal articles with participation as first author in nine of them, as well as four research reports and three conference papers. In addition to his excellent written communication skills, he has exhibited his oral communication skills through three separate presentations at international conferences over the last two years.



Continued on page 2

In this Issue:

- 1 Student Awards
- 3 SWUTC Family News
- 5 Student Kudos
- 6 New Research Highlights
- 8 Education Highlights
- 9 Technology Transfer News
- 9 Published Reports



December 2009

Continued from page 1

Professionally, Dr. Alvarez is active in the Transportation Research Board (TRB), American Society of Civil Engineers (ASCE), the Association of Asphalt Paving Technologies (AAPPT), the Columbian Geotechnical Society, and the Association of Civil Engineering Doctoral Students (AASCEdocS) at Texas A&M. While at TAMU, Mr. Alvarez received a Dwight D. Eisenhower Transportation Fellowship (2008), a Chemical Lime Company Endowed Fellowship (2007), and a Eugene L. Marquis Scholarship (2006).

Dr. Alvarez graduated December 2009. He has returned to Columbia and is currently a professor at the University of Magdalena in Columbia where he teaches and conducts research in pavements and materials. Dr. Alvarez's Ph.D. advisor while at TAMU was Dr. Amy Epps Martin.

William J. Harris Outstanding Ph.D. Student Award

Dr. Jason D. Lemp completed his undergraduate education at the University of Missouri in 2004, studying civil engineering. He came to the University of Texas at Austin in the fall of 2005 in pursuit of master's and doctoral degrees.

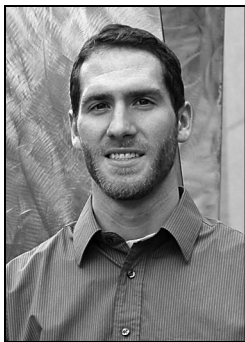


Since arriving at the University of Texas, Dr. Lemp has participated in a number of research endeavors across a variety of fields, including transportation economics, land-use planning, and travel demand modeling. His work in these areas has led to several published papers and presentations. Through these experiences, travel behavior and travel demand modeling emerged as research areas of particular interest to Dr. Lemp. His dissertation research focused on developing models of travelers' activity scheduling decisions that offer an econometrically rigorous connection to microeconomic theories of behavior.

During his graduate studies, Dr. Lemp was a recipient of a Dwight D. Eisenhower Graduate Transportation Fellowship, Talbot S. Huff Highway Engineering Graduate Fellowship, and an SWUTC Advanced Institute (AI) Fellowship. He has also been supported as a research assistant on the SWUTC project entitled "Microsimulation for Coupled Models of Travel & Location Choice Behavior."

Dr. Lemp completed his doctoral degree and graduated in December 2009. He now hopes to find a career with a transportation consulting firm. Dr. Lemp's faculty advisor at the University of Texas was Dr. Kara Kockelman. Jason will be representing the SWUTC at the annual UTC Outstanding Student of the Year Awards ceremony during TRB's Annual Meeting in January, 2010.

Naomi Ledé Outstanding Masters Student Award



Mr. Jonathan Ré graduated in 2004 from Michigan State University with a Bachelor of Science in Civil and Environmental Engineering. After graduating with his B.S. he was employed as a Civil Engineer with Midwestern Consulting, L.L.C. in Ann Arbor, Michigan. In September 2007, he entered the graduate program at Texas A&M University to pursue his masters degree.

As a graduate student, Mr. Ré was a member of the SWUTC Advanced Institute and also a Research Assistant for the Texas Transportation Institute. As a graduate researcher on the TxDOT/FHWA Study *Developing Comprehensive Roadway Delineation Guidelines*, Mr. Ré was instrumental in establishing project design and methodology, assisting with data collection and facilitating subject experiments, formatting and coding various types of vehicle operations and significantly contributing to the research report *Driver Response to Delineation Treatments on Two-Lane Horizontal Curves*. He has also made numerous presentations on his research work, including two to TRB and one to the Texas ITE Annual Summer Meeting.

Continued from page 2

Mr. Ré is an active member of the Institute of Transportation Engineers and is an American Society of Civil Engineers Associate Member. While at TAMU he was winner of the 2009 Texas A&M Student Research Week Systems Engineering Session, recipient of the Jack E. Leisch Memorial National Graduate Fellowship (2008), Transoft Solutions Inc. Ahead of the Curve Scholarship (2008), ITE Outstanding Student Paper Award for District 9 (2008), and the TAMU ITE Outstanding Student Award (2008).

Mr. Ré graduated with his Masters of Science, Civil Engineering – Transportation in December 2008 and has since joined the Texas Transportation Institute on a full-time basis as an Assistant Transportation Researcher in the Operations and Design Division. Mr. Ré’s major professor at TAMU was Dr. Gene Hawkins.

SWUTC Family News

Key SWUTC Personnel Recognized with Honors

SWUTC Executive Committee member and researcher, **Dr. Lei Yu** of Texas Southern University accepted the position of Dean of the College of Science and Technology at Texas Southern University effective September 1, 2009. He originally joined the faculty in the Department of Transportation Studies in 1994, and is currently serving as Professor of Transportation Planning and Management and Co-PI of National Transportation Security Center of Excellence for Petro-Chemical Transportation. Previously, he has been the Interim Chair and Chair of Department of Transportation Studies for 12 years. He earned his Ph.D. degree in Civil/Transportation Systems Engineering from Queen’s University (Canada) in 1994, M. Eng. Degree in Production and Systems Engineering from Nagoya Institute of Technology (Japan) in 1988, and B.Eng Degree in Transportation Management Engineering from Beijing Jiaotong University (China) in 1984. He is a professional engineer registered in the State of Texas.

In the Dean’s position, Dr. Yu serves as chief academic and administrative officer of the College under the general direction of the Provost, and provides leadership in formulating educational policies. He is responsible for supervising the College’s daily operations, managing the College’s budget, and leading fund-raising efforts.

SWUTC researcher **Dr. Clifford Spiegelman** has been appointed Distinguished Professor of Statistics at Texas A&M University’s College of Science. The title of Distinguished Professor is reserved for faculty who are recognized by their peers as being among the top 5 percent in their fields worldwide. Currently, there are about 70 Distinguished Professors among the 2,900 faculty members of Texas A&M University.

“This appointment is a career highlight, to say the least,” Spiegelman said. “It’s a huge honor for me to work alongside my colleagues at TTI and the university to try and solve problems through statistics.”

Spiegelman, who joined the Texas A&M faculty in 1987, made international news in 2007 when his work on bullet fragments from the JFK assassination case determined that the FBI analysis was flawed.

Spiegelman is a founder of chemometrics and a leader in statistical forensics. His appointment as Distinguished Professor became effective September 1, 2009.

On October 1st, SWUTC researcher, **Dr. Eyad Masad** was appointed Assistant Dean for Research and Graduate Studies at Texas A&M

Continued on page 4

at Qatar. "As a relatively new campus, we still have significant work to do in terms of building research capacity in Qatar," Masad said. Masad holds a joint appointment as Halliburton Professor of Civil Engineering at Texas A&M's home campus and is a member of the mechanical engineering program at Texas A&M at Qatar. His expertise lies in developing innovative materials for improving the performance and qualities of infrastructure systems, and he is looking to establish regional research centers to support development in Qatar. "Eyad has contributed to the well-being of society by helping to make roads better, and in the process had demonstrated how sophisticated scientific instrumentation can be used to produce very practical improvements to engineering practice," said Dr. James C. Holste, associate dean for research and graduate studies at Texas A&M at Qatar. "Now, he will be assisting other researchers to develop their programs as well as assisting with the implementation of our graduate programs. These programs will certainly provide more opportunities to develop the technical expertise and technical base that Qatar requires."



In October, SWUTC researcher and Associate Professor **Ming Zhang** at the University of Texas at Austin was accepted to the Planning Accreditation Board (PAB) Site Visitor pool. As part of a team comprised of two planning educators and one practitioner, site visitors conduct multi-day, in-depth, fact-finding visits to planning programs seeking initial accreditation or re-accreditation. They review programs' Self Study Reports and curriculums, and interview administration, staff, students, alumni, and local planning professionals to assess program performance and quality. Site visitors then work with their teams to produce a Site Visit Report. The PAB reviews the Site Visit Report in addition to other materials when considering programs for (re) accreditation.

Each year, the PAB organizes roughly twelve site visits to planning programs around the country. Site visitors are appointed for renewable five-year terms, and ideally, each site visitor will be asked to conduct a site visit once every two or three years.

Serving as a site visitor provides the opportunity to visit universities around the country, meet planners, educators, students, and community leaders and gather new ideas and perspectives on planning.



Dr. C. Michael Walton, Professor in Transportation Engineering at the University of Texas at Austin and SWUTC Executive Committee member and researcher, was awarded on November 13, 2009 the TxDOT *Road Hand Award*. This award is an honored TxDOT tradition to acknowledge those who have made improvements to Texas transportation a labor of love.

In the early days of the 20th century, anyone who helped build roads was called a Road Hand. Today's Road Hands are citizens who have given their time, energy, and vision to help improve transportation throughout the state. In bestowing this award, TxDOT recognizes its friends who have helped build one of the best transportation systems in the world. Luther DeBerry (BSCE '37), a former State Highway Engineer, created the Road Hand award in 1973 as the highest tribute to public-spirited citizens who championed transportation projects in their community.

Professor Walton is recognized for his involvement in shaping the state's future transportation plans. According to Amadeo Saenz, Jr., TxDOT Executive Director, he has played a decisive role in helping determine the fiscal requirements for the state's transportation goals by serving as chair of the agency's "2030 Committee". The 2030 report provides a comprehensive analysis of estimated needs, the anticipated costs to realize those needs, and the resulting benefits of highway construction and maintenance on urban and rural mobility and safety.

The names of Road Hand award recipients are inscribed on the Road Hand Hall of Honor plaque which hangs prominently in the foyer of the historic Dewitt C. Green Highway Building in Austin.



Continued from page 4

Dr. Ivan Damjanovic, Assistant Professor of construction engineering and management in the Zachry Department of Civil Engineering and SWUTC researcher, has been appointed to an ad hoc committee by The National Academies' Division on Engineering and Physical Sciences.

The project, Predicting Outcomes from Investments in the Maintenance and Repair of Federal Facilities, has a committee of experts who will develop methods, strategies, and procedures to predict outcomes anticipated from investments in federal facilities' maintenance and repair. The project will begin Dec. 1 and run for 18 months.

Damjanovic received his Ph.D. from the University of Texas in 2006 and joined Texas A&M University in Aug. 2006.



Dr. Dallas N. Little, Snead Chair Professor in the Zachry Department of Civil Engineering at Texas A&M University and SWUTC Executive Committee member was named a Regents Professor by The Texas A&M University System Board of Regents during its meeting on December 4, 2009.

Little, who is also the associate director of the Center for Aggregates Research conducts research through TEES, TTI as well as the SWUTC.

The board established the Regents Professor Award program in 1996 and Regents Fellow Service Award program in 1998 to recognize employees who have made exemplary contributions to their university or agency and to the people of Texas. To date, 118 faculty members have been named Regents Professor and 71 agency professionals have been named Regents Fellow.

Recipients will receive a \$9,000 stipend, a commemorative medallion and a certificate.

Student Kudos

The following SWUTC student researchers received *Outstanding Student Awards* from the Texas Institute of Transportation Engineers. These awards recognize an outstanding student in each of the TexITE Student Chapters.



Eleni Pappas - SWUTC Advanced Institute MS student from the University of Texas at Austin supervised by Dr. Randy Machemehl.

Yan Zheng - SWUTC MS graduate researcher at Texas Southern University supervised by Dr. Fengxiang Qiao.



Ben Sperry - SWUTC Transportation Scholars Ph.D. student and SWUTC researcher at Texas A&M University supervised by Mr. Curtis Morgan.

*This year, the SWUTC selected 40 new research studies to fund.
Four of these are highlighted here.*

Port Security

In US seaports, Customs and Border Protection (CBP) officers are currently using non-intrusive inspection (NII) technologies to inspect cargoes to identify nuclear materials and other contraband in cargo containers. The NII technologies that are currently being used include radiation detectors, X-ray imaging systems, and Gamma-ray imaging systems. These existing NII technologies each have their own unique strengths and weaknesses. In addition, there are more advanced inspection technologies being developed, such as MicroSearch technology which detects stowaways by detecting a person's heartbeat; and Pulsed Photonuclear Assessment (PPA) technology that can detect shielded nuclear material. Since all these technologies have their own capabilities and limitations, the CBP officers need to have the most updated knowledge of these existing NII technologies in order to make the right decisions in selecting the proper tools for port cargo inspections. The objectives of the research being conducted by **Dr. Yi Qi** of Texas Southern University are to investigate the capability and cost of currently deployed and newly available NII technologies for port cargo inspections. And to evaluate the effectiveness and cost of various combinations of available NII inspection technologies by using a simulation model and by surveying cargo security officers. The results of this work will enable the research team to make recommendations about the most cost-effective combinations of NII technologies that can detect the widest range of contraband.



Dr. Yi Qi

For more information, visit <http://swutc.tamu.edu/projectdescriptions/161042.htm>

Materials

Health monitoring of concrete and asphalt pavements holds a promise as a way to provide information for near real-time condition assessment of the pavement distresses and for the development of damage resistant pavements. This information can be used to assess the integrity, durability, and incipient damage of pavement due to various traffic and environmental loading conditions and for early scheduling of repair and maintenance. However, one of the major obstacles preventing sensor-based monitoring is the lack of reliable, easy-to-install, cost-effective, and harsh environment resistant sensors that can be densely embedded into large-scale civil infrastructure systems. Furthermore, the current integrated sensors are still lacking for many of the properties to be monitored and are only capable of providing surface measuring and are too large to be used in pavements. Nanotechnology and Micro/Nano-Electro-Mechanical Systems (MEMS/NEMS) that have matured in recent years represent an innovative solution to monitor appropriate physical properties of asphalt and concrete pavements which could indicate the onset of pavement distresses (e.g. stress and strain, cracking, temperature, and moisture), leading to wireless, inexpensive, durable, compact, and high-density information collection. However, up until now, these MEMS/NEMS-based systems have been developed and used with great success in electronic, computer, automobile, aerospace, defense, and medical industries, but with very limited development for pavements and transportation infrastructures. The main goal of this research being conducted by **Dr. Rashid Abu Al-Rub** of Texas A&M University is the development of an inexpensive and reliable MEMS/NEMS-based system that can be easily embedded in the pavement as a "Smart Aggregate" for real-time monitoring of the pavement health.



Dr. Rashid Abu Al-Rub

For more information, visit <http://swutc.tamu.edu/projectdescriptions/476660-00017.htm>

Climate Change

Greenhouse gas (GHG) emission bills currently being considered in Congress would impose a new layer of regulation on Texas' transportation industry. All GHG reduction alternatives would require petroleum refiners to report their carbon emissions and reduce their air pollution over time. Such regulation would present added expense to refiners. The specific framework for carbon pass-through costs within the transportation sector is up for debate. And the costs of constraining carbon in transportation will have ripple effects throughout the Texas economy. However, the potential cost savings of infrastructure efficiency upgrades could spur renewed investment, increase job growth, and enhance the mobility within Region 6.



Dr. Leigh Boske

This research being conducted by **Dr. Leigh Boske** of the University of Texas at Austin, will provide a full discussion of impacts that is requisite to assessing the Texas transportation sector's overall liability and opportunity under a national GHG reduction plan. This includes, offering economic explanations of how carbon costs may be passed through the transportation fuel supply chain. Considering how variations in the cost pass-through mechanism may influence the price paid for fuel at the pump. And address how the vertical integration of transportation fuel companies affects the price that gasoline customers pay at the pump. This reaserach will lead to a better understanding of the ramifications of regulating carbon as part of sound environmental stewardship which is critical for sustaining economic growth and trade within Region 6.

For more information, visit <http://swutc.tamu.edu/projectdescriptions/161021.htm>

High-Speed Rail

One of the ten federally-designated high-speed rail corridors, the South Central Corridor, extends from San Antonio, Texas north towards the Dallas-Fort Worth metropolitan area, where the corridor divides, with one segment branching north to Oklahoma City and Tulsa, Oklahoma and the other segment branching east through Texarkana, Texas towards Little Rock, Arkansas. This corridor was designated by the federal government in late 2000, however little detailed planning for service along the corridor has taken place to this point.



Mr. Curtis Morgan

The challenge for planners and policymakers alike when considering a significant investment such as the one that will be necessary for a high-speed passenger rail network is to ensure that the public resources are being distributed in a fair and efficient manner, balancing trade-offs between mobility and access. Past feasibility studies of proposed high-speed passenger rail service have focused primarily on the former, emphasizing the mobility benefits resulting from improved service between major urban areas of a particular corridor. For small- or medium-sized urban areas along a high-speed rail corridor, the projected benefits of improved intercity passenger rail service are only available if access to the service is provided.

To that end, there exists a need to gain a greater understanding of how improved rail service could impact small- or medium-size urban areas along a high-speed rail corridor. Two specific issues should be considered. First, in these urban areas, what are the residents' expectations and perceptions of proposed passenger rail service improvements? Second, what are the service configurations (speed, frequency, and on-board/station amenities) that would result in the most appropriate level of investment to ensure that the intercity travel needs of the various-sized urban areas along a designated high-speed rail corridor are addressed? This research being conducted by **Mr. Curtis Morgan** of Texas A&M University will seek to answer these questions by conducting a survey of residents in urban areas of varying size that are located along the federally-designated South Central High-Speed Rail Corridor. The study findings will inform planning efforts and ensure appropriate levels of investment in improved intercity rail along this corridor.

For more information, visit <http://swutc.tamu.edu/projectdescriptions/161003.htm>

SWUTC To Hold 1st Annual Consortium-Wide Student Seminar

To be held at the Winedale Historic Center in Winedale Texas on Friday, March 5th, this one day conference will provide the opportunity for interaction between transportation students and faculty from the University of Texas at Austin, Texas Southern University and Texas A&M University. During the course of the day, the students will hear presentations on current issues in transportation from distinguished professionals and work together in small groups to discuss and address transportation challenges. There will be opportunities for students to socialize with their counterparts from the other schools and learn more about the research and education programs at each university. This event is free to the student participants. Transportation to and from Winedale will be provided.

For more information, please contact Dr. Gene Hawkins at: ghawkins@civil.tamu.edu

Important Upcoming Deadlines

University of Texas at Austin Undergraduate Summer Internship in Transportation (USIT 2010)

Deadline for submitting an application to participate in the summer 2010 program is March 15, 2010. 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 2010)

Deadline to submit an application for the summer 2010 program is February 26, 2010. 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.

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 Conway - Substitute Assistant Professor for The City College of New York

Ashley Haire - Post Doctoral Position at Portland State University

Kristopher Pruner - Research Fellow for the Center for Transportation Research

Tara Snell - Transportation Engineer for Parsons Brinckerhoff

Texas A&M Graduates

Jonathan Re - Research Associate for Texas Transportation Institute

Xiugang Li - Transportation Analyst for the Oregon Department of Transportation

John Lowery - Transportation Engineer for Parsons Brinckerhoff

SWUTC Researchers Hit the Road

The following is a listing of SWUTC staff who presented study findings based on their SWUTC research.

Dr. Fengxiang Qiao, Ms. Yan Zeng and Dr. Lei Yu from Texas Southern University presented *Dynamic Traffic Assignment Model Consideration Drivers' Unfamiliarity with Network Layout* to the 12th International IEEE Conference on Intelligent Transportation Systems (ITSC2009), St. Louis, MO, October 3-7, 2009.

Dr. Ming Zhang from the University of Texas at Austin, presented *Calibrating the Potential Effects of Transit-Oriented Development on Trip Making: Case Study of Austin, Texas* at the 50th Anniversary ACSP Conference, Crystal City, VA, October 1-4, 2009.

Dr. Carol Lewis from Texas Southern University presented *Evacuation for Hurricane Ike: What Have We Learned?*, at the Hurricane Ike: Revisited Conference, sponsored by the SSPEED Center (Severe Storm Prediction for Emergencies and Education for Disasters), Houston, TX, September 13, 2009.

Dr. Amit Bhasin from University of Texas at Austin presented *Determining the Microstructure of San-Asphalt and Full Asphalt Mixtures Used to Evaluate Fatigue Cracking and Laboratory Investigation of a Novel Method to Accelerate Healing in Asphalt Mixtures Using Thermo-Mechanical Treatments* to the FHWA Expert Task Group (ETG), San Antonio, TX, September 17-18, 2009.

Recently Published Reports

Each of the following publications are available in PDF format at
<http://swutc.tamu.edu/publications.htm>

Dynamic Traffic Assignment Based Trailblazing Guide Signing for Major Traffic Generator, Fengxiang Qiao, Yan Zeng and Lei Yu, Texas Southern University, December 2009, 41 pp. (476660-00046-1)

Intelligent Transportation Systems Data Compression Using Wavelet Decomposition Technique, Fengxiang Qiao, Hao Liu and Lei Yu, Texas Southern University, December 2009, 82 pp. (167651-1)

An Evaluation of Alternative Fuels Usage by Public Transit Agencies, Gwen Goodwin and Ronald Goodwin, Texas Southern University, December 2009, 60 pp. (167321-1)

Multimodal Network Models for Robust Transportation Systems, Jennifer Duthie, Erin Ferguson, Avinash Unnikrishnan and S. Travis Waller, University of Texas at Austin, October 2009, 67 pp. (167867-1)

Pilot Information System for Cross-Border Hazmat Transportation, Rajat Rajbhandari, Ivan Calzada, Barry Thatcher, Michael Noonchester, Texas A&M University, October 2009, 101 pp. (476660-00016-1)

Driver Eye-scanning Behavior at Intersections at Night, Laura L. Higgins, Myunghoon Ko, and Susan T. Chrysler, Texas A&M University, October 2009, 59 pp. (169111-1)

Bush School Capstone Course Support: The Regional Impact of Climate Change on Transportation Infrastructure and Decision Making, Eric Lindquist, Texas A&M University, September 2009, 64 pp. (476660-00010-1)

Continued on page 10

Sustainable Intersection Control to Accommodate Urban Freight Mobility, Bruce X. Wang and Kai Yin, Texas A&M University, August 2009, 54 pp. (476660-00015-1)

Vehicle and Driver Scheduling for Public Transit, Kristen Torrance, Ashley R. Haire and Randy B. Machemehl, University of Texas at Austin, August 2009, 44 pp. (476660-00063-1)

Laboratory Investigation of a Novel Method to Accelerate Healing in Asphalt Mixtures Using Thermal Treatment, Amit Bhasin, Atul Narayan, and Dallas N. Little, Texas A&M University, August 2009, 35 pp. (476660-00005-1)

Improving the Sustainability of Asphalt Pavements through Developing a Predictive Model with Fundamental Material Properties, Rashid K. Abu Al-Rub, Eyad A. Masad, and Chien-Wei Huang, Texas A&M University, August 2009, 59 pp. (476660-00007-1)

A Methodology for Incorporating Fuel Price Impacts into Short-term Transit Ridership Forecasts, Ashley R. Haire and Randy B. Machemehl, University of Texas at Austin, August 2009, 147 pp. (169203-1)

Graduate Course Development: Transportation Policy and Politics, Eric Lindquist, Texas A&M University, August 2009, 45 pp. (167176-1)

Examining the Relationship between Community Design and Crash Incidence, Eric Dumbaugh, Robert Rae and Douglas Wunneberger, Texas A&M University, July 2009, 60 pp. (167173-1)

RFID Applications in Transportation Operation and Intelligent Transportation Systems (ITS), Fengxiang Qiao, Lei Yu, Rong Zhang, Zhiyuan Chen, and Reza Fatholahzadeh, Texas Southern University, June 2009, 57 pp. (476660-00044-1)

Moving Toward Implementation: An Examination of the Organizational and Political Structures of Transit-Oriented Development, Sharon Moses, Carol Abel Lewis and Krystal Lastrape, Texas Southern University, June 2009, 66 pp. (473700-00050-1)

Microsimulation of Household and Firm Behaviors: Anticipation of Greenhouse Gas Emissions for Austin, Texas, Sumala Tirumalachetty and Kara M. Kockelman, University of Texas at Austin, May 2009, 129 pp. (167272-1)

Vehicle Infrastructure Integration (VII) Based Road-Condition Warning System for Highway Collision Prevention, Yi Qi, Xin Chen, Lane Yang, Bin Wang and Lei Yu, Texas Southern University, May 2009, 83 pp. (476660-00043-1)



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