

# Mehdi Azimi

Texas Southern University  
3100 Cleburne Avenue  
Houston, TX 77004  
Phone: (713) 313-1293  
E-Mail: azimim@tsu.edu

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## **Education**

<b>Doctor of Philosophy in Civil Engineering</b> Texas A&M University, College Station	<b>2012</b>
<b>Master of Science in Transportation Planning &amp; Management</b> Texas Southern University	<b>2007</b>
<b>Master of Science in Civil Engineering</b> Tarbiat Modarres University	<b>2001</b>
<b>Bachelor of Science in Civil Engineering</b> University of Sistan & Baluchestan	<b>1997</b>

## **Teaching Experience**

- Graduate Teaching Academy (GTA) Certificate (completed one academic year of teaching skills development in the Academy for Future Faculty Teaching Certificate Program), Texas A&M University, February 2010-May 2011
- Marine Transportation Systems (Graduate Course), Spring 2015, Texas Southern University (Adjunct Faculty)
- Geographic Information Systems for Transportation (Graduate Course), Fall 2014, Texas Southern University (Co-Instructor)
- Traffic Signals and Signal Control (Graduate Course), Spring 2014, Texas Southern University (Co-Instructor)
- Geographic Information Systems for Transportation (Graduate Course), Fall 2013, Texas Southern University (Co-Instructor)
- Transportation Engineering (Undergraduate Course), Spring 2010, Texas A&M University (Teaching Assistant)
- Water and Environmental Engineering (Undergraduate Course), Spring 2005, Azad University (Lecturer)
- Introduction to Soil Mechanics and Geotechnical Engineering (Undergraduate Course), Fall 2004, Azad University (Lecturer)
- Water and Environmental Engineering (Undergraduate Course), Spring 2004, Azad University (Lecturer)
- Introduction to Soil Mechanics and Geotechnical Engineering (Undergraduate Course), Fall 2003, Azad University (Lecturer)
- Water and Environmental Engineering, Spring 2003 (Undergraduate Course), AZAD University (Lecturer)
- Introduction to Soil Mechanics and Geotechnical Engineering (Undergraduate Course), Fall 2002, AZAD University (Lecturer)
- Engineering Mechanics: Statics (Undergraduate Course), Spring 1997, University of Sistan & Baluchestan (Teaching Assistant)
- Strength of Materials (Undergraduate Course), Spring 1997, University of Sistan & Baluchestan (Teaching Assistant)

## **Research Experience**

### **Texas Southern University, Dec. 2012-Present**

#### *Research Associate and Adjunct Faculty*

- Worked on the TxDOT research project 0-6808 *"Quantification of the Impact of a Road's Pavement Condition on Emissions"*
- Worked on the Department of Homeland Security project *"Preparing technically savvy homeland security professionals for maritime transportation security"*
- Worked on the research projects related to the NSF CREST Center for Research on Complex Networks with the focus on developing and implementing vehicle emission models and real-time intelligent network control methods to reduce greenhouse gas and pollutant emissions
- Worked on the research projects related to the TranLIVE Research Center with the focus on developing technologies to reduce the environmental impact of the transportation system

### **Texas A&M Transportation Institute (TTI), Texas A&M University, Oct. 2007-Oct. 2012**

#### *Graduate Research Assistant*

- Worked on the FHWA research project *"Evaluation of Pedestrian Safety Engineering Countermeasures at Urban and Suburban Midblock Crossing Locations"*
- Worked on the National Cooperative Highway Research Project (NCHRP) 3-102 *"Design Guidance for Intersection Auxiliary Lanes"*
- Worked on the TxDOT research project 0-6702 *"Development of Pedestrian Crash Countermeasures and Appropriate Crash Reduction Factors (CRF)"*
- Worked on the technical memorandum (complexity ranking and rating survey results) of the National Cooperative Highway Research Project (NCHRP) 5-20 *"Guidelines for Nighttime Visibility of Overhead Guide Signs"*
- Helped in the nighttime study of the TxDOT research project 0-6641 *"Assessment of Impact of Nighttime Work Zone Lighting on Motorists"*
- Worked on the Technical Memorandum No. 5 (*Roadway Visibility Assessment*) for the TxDOT research project 0-6645 *"Guidelines for Continuous and Safety Roadway Lighting"*
- Worked on the SWUTC research project 161102 *"Automating the Process for Locating No-Passing Zones Using Georeferencing Data"*
- Worked on the background part of the proposal for the TxDOT research project 0-6645 *"Guidelines for Continuous and Safety Roadway Lighting"*
- Conducted research on the international and state guidelines for sag vertical curve design criteria
- Assisted in the TxDOT research project 0-6142 *"Feasibility and Applications of RFID Technologies to Support Right of Way Functions"*
- Conducted research on the possibility of establishing a new guideline for estimation of maximum green interval
- Contributed to applying reviews for updating TxDOT Sign Crew Field Book based on the MUTCD 2003

### **Texas Southern University, May 2005-Aug. 2007**

#### *Graduate Research Assistant*

Worked on the TxDOT research project 0-5290 *"Left-Turn Lane Design and Operation"*

### **Building & Housing Research Center (BHRC), Jul. 1999-Jan. 2001**

#### *Graduate Research Assistant*

Worked on the research project *"Seismic Damage Assessment of Common Urban Buildings"*

### **Professional Experience**

#### **Peysang Consulting Engineers Co., Nov. 2003-Apr. 2005**

##### *Technical Project Manager*

Managed three power plant projects including vulnerability study, seismic damage assessment, and retrofitting (Peysang Consulting Engineers is specialized in the fields of oil and gas industries both upstream and downstream, power and energy industries, geotechnical and foundation engineering, and geosciences)

#### **Peysang Consulting Engineers Co., May 2002-Apr. 2005**

##### *Head of Bids & Contracts Department*

#### **Manategh Technical & Construction Co., Apr. 2001-Apr. 2002**

##### *Civil Engineer*

- Worked on geotechnical engineering and soil improvement projects (applying Dynamic Compaction method), Pars Special Economic Energy Zone, Asaluyeh
- Worked on several oil, gas and petrochemical projects, Pars Special Economic Energy Zone, Asaluyeh

### **Honors and Awards**

- Dr. William J. Harris Outstanding PhD Student Award, Texas A&M University, 2012
- TTI/Trinity Outstanding Doctoral Student Award, Texas Transportation Institute (TTI), 2012
- ITE Student Paper – Texas District Award, 2011
- Keese-Wootan Transportation Fellowship, 2011
- International Road Federation (IRF) Fellowship, 2011
- Texas Public Education Grant, 2010
- Richard T Lietz '45 Endowed Memorial Scholarship, 2010
- ITE Outstanding Student – TSU Award, 2007
- Civil Engineering Department Head Fellowship, Texas A&M University, 2007
- NIOC full Scholarship for graduate study in Project Management at the University of Calgary, Canada, 2005

### **Student Mentoring/Advising Experience**

- Reese Selman, Undergraduate Student, Maritime Transportation, Texas Southern University, Spring 2015 – Summer 2015
- Micah Harper, Undergraduate Student, Aviation Science & Technology, Texas Southern University, Spring 2015
- Aminata Dicko, Undergraduate Student, Civil Engineering Technology, Texas Southern University, Fall 2014 – Spring 2015
- Peijia Tang, Graduate Student, Transportation Planning and Management, Texas Southern University, Spring 2014 – Spring 2015
- Keziah Hill, Graduate Student, Transportation Planning & Management, Texas Southern University, Spring 2013 – Fall 2013

### **Service on Graduate Student Thesis Committee**

- Peijia Tang, Graduate Student, Transportation Planning and Management, Texas Southern University

### **Refereed Research Papers**

- Hoover, C., F. Qiao, L. Yu, M. Azimi. *Emission Implications of Alternative Origin-Destination Routes: A Case Study in Houston, Texas*. Peer reviewed and accepted to be published in 94<sup>th</sup> Transportation Research Board Annual Meeting Compendium of Papers, 2015.
- Hill, K., F. Qiao, M. Azimi, L. Yu. *Impacts of Restaurant Drive-Through Configurations on Vehicle Emissions*. Peer reviewed and published in 93<sup>rd</sup> Transportation Research Board Annual Meeting Compendium of Papers, 2014.
- Azimi, M., and H. G. Hawkins, Jr. *Algorithm for Analyzing Horizontal Sight Distance Based on Lane Centerline Coordinates*. Transportation Research Record (TRR): Journal of the Transportation Research Board, National Academy of Sciences, Vol. 2358, Washington, D.C., 2013.
- Qi, Y., M. Azimi, L. Yu. *Safety Impacts of Increasing Lengths of Left-Turn Lanes*. Peer reviewed and published in 92<sup>nd</sup> Transportation Research Board Annual Meeting Compendium of Papers, 2013.
- Azimi, M., C. Williams, and H. G. Hawkins, Jr. *Using GPS to Locate No-Passing Zones on Straight Sections of Two-Lane Highways*, Journal of Transportation: The Academic Journal of the Institute of Transportation Engineers, Vol. 3, No. 1, 2012.
- Azimi, M., and Y. Zhang. *Categorizing Freeway Flow Conditions Using Clustering Methods*. Transportation Research Record (TRR): Journal of the Transportation Research Board, National Academy of Sciences, Vol. 2173, Washington, D.C., 2010.
- Qi, Y., L. Yu, M. Azimi, and L. Guo. *Determination of Storage Lengths of Left-Turn Lanes at Signalized Intersections*. Transportation Research Record (TRR): Journal of the Transportation Research Board, National Academy of Sciences, Vol. 2023, Washington, D.C., 2007.

### **Research Reports**

- Azimi, M., H. G. Hawkins, Jr. *Automating the Process for Locating No-Passing Zones Using Georeferencing Data*. Research Report No. SWUTC/12/161102-1, Southwest Region University Transportation Center, 2012.
- Hawkins, Jr., H.G., A. Pike, and M. Azimi. *Evaluation of Traffic Control Devices: Fifth-Year Activities*. Research Report No. 0-4701-5. Texas Transportation Institute (TTI), College Station, TX, 2008.
- Yu, L., Y. Qi, M. Azimi, C. Guo, and L. Guo. *Left-Turn Lane Design and Operation*. Research Report No. 0-5290-1. Texas Department of Transportation (TxDOT), 2008.

### **Presentations**

- *Freight Movement by Heavy Duty Diesel Trucks Emission in Port of Houston Area*. 56th Annual Transportation Research Forum, Atlanta, GA, March 2015.
- *Emission Implications of Alternative Origin-Destination Routes: A Case Study in Houston, Texas*. Accepted for Presentation in Transportation Research Board (TRB) 94<sup>th</sup> Annual Meeting, Washington, D.C., January 2015.
- *Vehicle Emission Analysis at Restaurant Drive-Through Facilities with Different Configurations*. The Seventh International Conference on Environmental Science and Technology, The American Academy of Science, Houston, TX, June 2014.
- *Impacts of Restaurant Drive-Through Configurations on Vehicle Emissions*. Transportation Research Board (TRB) 93<sup>rd</sup> Annual Meeting, Washington, D.C., January 2014.
- *Safety Impacts of Increasing Lengths of Left-Turn Lanes*. Transportation Research Board (TRB) 92<sup>nd</sup> Annual Meeting, Washington, D.C., January 2013.

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- *Evaluation of Available Horizontal Sight Distance of Two-Lane Highways from Geometry of Travel Lane Centerline.* Transportation Research Board (TRB) 91<sup>st</sup> Annual Meeting, Washington, D.C., January 2012.
  - *Automating the Process for Locating No-Passing Zones Using Georeferencing Data.* Transportation Research Board (TRB) 91<sup>st</sup> Annual Meeting, Washington, D.C., January 2012.
  - *Comparison of Different Left-Turn Alternatives.* TexITE (Texas District ITE) Summer Meeting, Sugarland, TX, June 2010.
  - *Level of Service Criteria for Oversaturated Traffic Condition on Freeway Corridors.* TexITE (Texas District ITE) Winter Meeting, Frisco, TX, January 2010.
  - *Categorizing Freeway Flow Conditions Using Clustering Methods.* Transportation Research Board (TRB) 89th Annual Meeting, Washington, D.C., January 2010.

### **Training**

- Training Course on MOVES2010b held by the U.S. Environmental Protection Agency (EPA), Ann Arbor, MI, September 2013
- Brownwater University certificate by the Lone Star Harbor Safety Committee and the U.S. Coast Guard, Houston, TX, March 2015
- Bulk Liquid Terminal Operator Workshop by Houston Pilots, Houston, TX, May 2015