

# **Fengxiang Qiao, Ph.D.**

**Innovative Transportation Research Institute  
Department of Transportation Studies  
Texas Southern University  
3100 Cleburne Street, Houston, TX, USA  
Room: Technology Building 218  
(713) 313-1915  
fengxiang.qiao@tsu.edu**

## **1. Education**

- Ph.D., The Hong Kong University of Science and Technology, Hong Kong, 2000
- M.S., Mechanical Engineering, Southeast University, China, 1988
- B.S., Automatic Control Engineering, Southeast University, China, 1985

## **2. Biography**

Dr. Fengxiang Qiao is an affiliated professor in the Department of Environmental and Interdisciplinary Sciences, a professor in the Department of Transportation Studies, an affiliated professor in the Department of Engineering, a graduate faculty supervising Ph.D. students in Environmental Toxicology and Master of Science degree students in Transportation Planning and Management at Texas Southern University (TSU). Dr. Qiao specialized in the fields of vehicle exhaust and noise emission testing and modeling, transportation impacts on environment and public health, ecological transportation system modeling and development, transportation planning, traffic operation, transportation simulation, and intelligent transportation system. He is the co-director of Innovative Transportation Research Institute (ITRI) at TSU, and was the co-director of the Tier 1 U.S. Department of Transportation University Transportation Center (UTC) TranLIVE (Transportation for Livability by Integrating Vehicles and the Environment) on TSU side from year 2012-2016.

Dr. Qiao is the editorial board member of The SciFed Journal of Public Health; The Journal of Environmental and Toxicological Studies; and The Open Transportation Journal.

## **3. Recent Portrait Photograph**



#### **4. Research Interest**

- Vehicle exhaust emission and noise testing and modeling
- Transportation impacts on environment and public health
- Ecological transportation system modeling and development
- Transportation planning, operation, and simulation
- Intelligent Transportation System

#### **5. Professional Activities**

##### Professional Appointments

- Co-director, Innovative Transportation Research Center, Texas Southern University, since 2012
- Co-director, Tier 1 National University Transportation Center (UTC) of U.S. Department of Transportation TranLIVE, Texas Southern University portion, 2012-2016
- Affiliated Professor, Department of Environmental and Interdisciplinary Sciences, Texas Southern University, since 2012
- Professor, Department of Transportation Studies, TSU, Since 2016
- Associate Professor, Department of Transportation Studies, TSU, 2011-2016
- Assistant Professor, Department of Transportation Studies, TSU, 2005-2011
- Post-doctoral Research Associate and Research Professor, Department of Transportation Studies, TSU, December 2000 to August 2005
- Research Assistant, Department of Civil Engineering, The Hong Kong University of Science and Technology, February 1997 to July 2000
- Assistant Professor in Department of Transportation Engineering, Southeast University, China, March 1988 to November 2000

## Professional Services

- Editorial Board Member of
  - The Open Transportation Journal (Bentham Open, ISSN: 1874-4478, (<https://benthamopen.com/TOTJ/editorial-board/#>))
  - Civil and Environmental Research Journal, ISSN: 2575-8950, (<https://juniperpublishers.com/cerj/editorialboard.php>)
  - Trends In Civil Engineering and its Architecture, ISSN: 2637-4668, (<http://www.lupinepublishers.com/tceia/editorial-committee.php>)
  - Trends in Civil Engineering and Material Science, (<http://lupinepublishers.us/tcems/editorial-committee.php>), In Preparation.
  - Journal of Environmental and Toxicological Studies (SciForschen, <https://sciforschenonline.org/journals/environmental-toxicological-studies/fengxiang-qiao.php>)
  - SciFed Journal of Public Health (Scifed Group, <http://scifed.com/journal-of-public-health/editorial-board.php>)
  - Environmental and Toxicological Studies Journal, ISSN: (<http://www.imedpub.com/environmental-toxicology-studies-journal/editors.php>)
  - International Journal of Sustainable Energy and Environmental Research, Online ISSN: 2306-6253; Print ISSN: 2312-5764. (<http://trackyoursubmissions.com/index.php/26>)
- Reviewer of Multiple Scientific Journals in Transportation, Civil, and Environmental Studies, such as:
  - The International Journal of Transportation Research (TR) Part A, B, C, D, E
  - The American Society of Civil Engineers (ASCE) Journal of Transportation Engineering (TE)
  - The Journal of Transportation Research Record (TRR) by Transportation Research Board (TRB)
  - Transportmetrica A: Transport Science
  - Journal of The Air & Waste Management Association (A&WMA)
  - The Journal of Environmental Sciences Group
  - The Journal of Environment Pollution and Climate Change (JEPCC)
  - The Journal of Transportation Technologies (JTTs)
  - The Journal of Computer-Aided Civil and Infrastructure Engineering (CACAIIE)
  - The Open Transportation Journal
- Services in Academic Conferences, such as:
  - General Chair and Chair of International Technical Program Committee: The 31<sup>th</sup> International Chinese Transportation Professional Association (ICTPA) Annual Meeting, June 14-17, 2018, Guangzhou, China

- General Co-chair and Chair of International Technical Program Committee: The 30<sup>th</sup> International Chinese Transportation Professional Association (ICTPA) Annual Meeting, May 19-21, 2017, Houston, USA
- Co-chair of the International Conference on Modern Economic Development and Environment Protection (ICMED 2016), May 28~29, 2016, Chengdu, Sichuan, China
- International Technical Program Committee Member, IEEE SOLI 2015 (10th IEEE International Conference on Service Operations and Logistics, and Informatics), Tunisia, November 15-17<sup>th</sup>, 2015.
- Member of International Technical Program Committee, 28<sup>th</sup> ICTPA Annual Meeting, Irvin, CA, May 14-17, 2015.
- Member of International Technical Program Committee of The 15<sup>th</sup> Online World Conference on Soft Computing in Industrial Applications (WSC15), November 15-27, 2010.
- Member of International Technical Program Committee of 2010 International Conference on Modelling, Identification and Control (ICMIC 2010), Okayama, Japan, 17-19 July, 2010.
- Member of International Technical Program Committee of the 2010 IEEE International Conference on Service Operations and Logistics, and Informatics, July 15-17, 2010, Qingdao, Shandong, China.
- Member of International Technical Program Committee member of The 2010 IEEE International Conference on Networking, Sensing and Control (2010 IEEE ICNSC), Chicago, USA. April 11-13, 2010.
- Member of International Technical Program Committee of The First International Conference on Transportation Logistics, 27-29 July 2005, Singapore.  
<http://www.itvs.eng.nus.edu.sg/t-log2005/committee.html>.
- Member of International Technical Program Committee Session chair of 28<sup>th</sup> ICTPA Annual Meeting, Irvin, CA, May 14-17, 2015.
- Session chair of the 15<sup>th</sup> International IEEE Conference on Intelligent Transportation Systems - (ITSC 2012), Anchorage, Alaska, September 16-19, 2012.
- Session chair of the 12<sup>th</sup> International IEEE Conference on Intelligent Transportation Systems (ITSC 09), St. Louis, Missouri, U.S.A., October 3-7, 2009.
- Technical co-chair on "Remote Sensing and Space-Based Technologies for Earth Science" at the American Society of Civil Engineering (ASCE)'s 2006 Earth and Space International Conference in League City, Texas on March 6, 2006.
- International president of International Chinese Transportation Professional Association (ICTPA), headquarter, since 2017
- First Vice President of International Chinese Transportation Professional Association (ICTPA), headquarter, since 2013
- President of International Chinese Transportation Professional Association (ICTPA) Texas Chapter, 2012 and 2013
- Board of Director of International Chinese Transportation Professional Association (ICTPA) headquarter, since 2012

- Founder and Faculty Advisor of Texas Southern University Society of Young Engineers, since 2015
- Founder and Faculty Advisor of Chinese Oversea Transportation Association (COTA) Texas Southern University Student Chapter, since 2013
- Founder and Faculty Advisor of Intelligent Transportation Society (ITS) TSU Student Chapter, since 2010
- Advisor of Institute of Transportation Engineers (ITE) TSU Student Chapter, 2004-2010

#### Awards and Honors

- **“Best Paper Award”** in the 2013 Intelligent Transportation Society (ITS) World Conference in Tokyo, Japan. October 14-18, 2013. Authors: Qiao, F., J. Jia, L. Yu. (2013). A Short Range Vehicle to Infrastructure System at Work Zones and Intersections (paper # 1027).
- **First Place Award** of the Research Week, 2014, Texas Southern University
- **Faculty Award for Research/Creative Activities**, 2013, Texas Southern University
- **Distinguished Researcher of the Year Award**, 2012, College of Science and Technology, Texas Southern University
- Third Place Award of the Research Week, 2011, Texas Southern University
- Third Place Award of the Research Week, 2010, Texas Southern University
- Third Place Award of the Research Week, 2008, Texas Southern University
- Second Place Award of the Research Week, 2007, Texas Southern University
- Who's Who in The World, 2012. Marquis Who's Who LLC.
- Who's Who in the world 2011, Princeton Global.
- Who's Who in America, 2011. Marquis Who's Who LLC.
- Who's Who in The World, 2011. Marquis Who's Who LLC.
- Who's Who in America, 2010. Marquis Who's Who LLC.
- Who's Who in The World, 2010. Marquis Who's Who LLC.
- Who's Who in America, 2009. Marquis Who's Who LLC.
- Who's Who in The World, 2009. Marquis Who's Who LLC.
- Who's Who in America, 2008. Marquis Who's Who LLC.
- Who's Who in Science and Engineering, 2008-2009. Marquis Who's Who LLC.
- Who's Who in America, 2007. Marquis Who's Who LLC.
- Who's Who in Science and Technology, 2009. Marquis Who's Who LLC.
- Award of Science and Technology Achievement, National Education Council, China, June 1992

- Award of Science and Technology Achievement, Council of Science and Technology of Henan Province, China, June 1992

## 6. Publications

### Books

1. Qiao, F., Gao, L., and Li, Q. Advances in Transportation Systems and Practices. ISBN: 978-1-64008-627-2. Proceedings of the 30<sup>th</sup> Annual Meeting of the International Chinese Transportation Professionals Association (ICTPA), May 19-21, 2017. Houston, Texas, USA. <https://nebula.wsimg.com/68908c33374f59400ee30a45baf8bad3?AccessKeyId=1660089A58394D1EA780&disposition=0&alloworigin=1>
2. Rahman, R., L. Yu, F. Qiao, (2016). Smartphone Messages for Safe Driving in Work Zone: Simulator Tests. LAMBERT Academic Publishing. ISBN-13: 978-3659826320
3. Li, Q. and F. Qiao. (2014). How Drivers' Smart Advisory System Improves Driving Performance? A Simulator Imitation of Wireless Warning on Traffic Signal under Sun Glare. LAMBERT Academic Publishing. ISBN-13: 978-3-659-57193-0
4. Zeng, Y. and F. Qiao. (2014). Evaluation of Congestion Pricing Signage: A Flash Based Simulation Tool and the Algorithm to Evaluate Drivers' understanding. LAMBERT Academic Publishing. ISBN-13: 978-3659579349
5. Ma, L., F. Qiao, and L. Yu. (2014). Fuzzy Logic Based Eligible Criteria for Major Traffic Generators. LAMBERT Academic Publishing. ISBN-13: 978-3659586026
6. Qiao, F. (2010). Intelligent Data Dependent Modeling of Traffic Flow: Solving Problems in Traffic Flow Classification, Simulation, and Control. ISBN-10: 3-8383-2906-6. Publisher: Lap Lambert Academic Publishing. 244 pages.

### Selected Journal Papers

1. Du, J; Li, Q; Qiao, F; Yu, L, "Vehicle Emission Estimation on Mainline Freeway Under Isolated and Integrated Ramp Metering Strategies" , Environmental Engineering and Management Journal, p. 1-13, Vol. 17, no. 5, (2018).
2. Khan, Mahbuba; Qiao, Fengxiang; Wang, Bin; Yang, Lang, "The Impact of the Reimagination of New Bus Network on METRO Rail' s Ridership in Houston" , Transportation Research Record: Journal of Transportation Research Board, vol.0, no.0, (2018), in print
3. Li, Q; Qiao, F; Yu, L, "Digital Signal Processing Approach to Identify the Boundary of Vehicle Idling Status during Operation" , Transportation Research Record: Journal of Transportation Research Board, vol.0, no.0, pp.1-16, (2018), in print.
4. Shi, J; Qiao, F; Yu, L; Li, Q; Fan, F, "Simulation and Analysis of the Carrying Capacity for Road Networks using a grid based approach" . Journal of Traffic and Transportation Engineering. Elsevier Publishing, vol.0, no.0, pp.1-25, (2018), In print
5. Pan, Yingjiu; Chen, Shuyan; Qiao, Fengxiang; Zhang, Bin; Li, Saisai, "Characteristics Analysis and Modeling of Emissions for LNG Bus in Real-World Driving", Journal of Transportation Research Record, Transportation Research Board of the National Academies, 2018, In Print.
6. Li, J; Q., Li, F. Qiao, and L. Yu, "Assessment of in-vehicle Messages in the Advance Warning Area of a Work Zone", Journal Of Civil & Environmental Engineering, 8:302. DOI: 10.4172/2165-784X.1000302. vol. 8, no. 2. 1000302. (2018). Li, Q., and Qiao, F. Sustainable Strategies to

Mitigate Toxic Impacts of Transportation System on the Environment. *Environmental Toxicology Studies Journal*. 2017, Vol. 1 No. 1: 1.

7. J. Shi, F. Qiao, L. Yu, and Q. Li. Simulation and Analysis of the Carrying Capacity for a Road Network. *Journal of Traffic and Transportation Engineering*. Elsevier Publishing. 2017 Special Issue.
8. Qiao, F. Li, Q., Yu, L. How the Roadway Pavement Roughness Impacts Vehicle Emissions? *Environment Pollution and Climate Change* 1:134, DOI: 10.4172/2573-458X.1000134. <https://www.omicsonline.org/open-access/how-the-roadway-pavement-roughness-impacts-vehicle-emissions-2573-458X-1000134.php?aid=91642>, July 2017
9. Qiao, F., You B., Li, Q, Yu, L. Mitigation Measures and Recommendations in the USA to Reduce Environmental Impacts of Transportation Infrastructure on Wildlife”, *Environment Pollution and Climate Change* 1:135. DOI: 10.4172/2573-458X.1000135. <https://www.omicsonline.org/open-access/mitigation-measures-and-recommendations-in-the-usa-to-reduceenvironmental-impacts-of-transportation-infrastructure-on-wildlife-2573-458X-1000135.php?aid=91644>, July 2017
10. Khan, M. F. Qiao, and L. Yu. Wavelet Analysis to Characterize Dependency of Vehicular Emissions on Road Roughness. *Journal of the Transportation Research Board* 2641 (2017): 111-125, Transportation Research Board of National Sciences of Academy, 2017.
11. Li Q, Qiao F, Yu L, Shi J. Modeling vehicle interior noise exposure dose on freeways: Considering weaving segment designs and engine operation. *Journal of the Air & Waste Management Association*. 2018 Jun 3;68(6):576-87.
12. Li Q, Qiao F, Yu L, Chen S, Li T. Impact of freeway weaving segment design on light-duty vehicle exhaust emissions. *Journal of the Air & Waste Management Association*. 2018 Jun 3;68(6):564-75, DOI: 10.1080/10962247.2017.1344744.
13. Li, Q., F. Qiao, X. Wang, L. Yu, Drivers’ smart advisory system improves driving performance at STOP sign intersections, *Journal of Traffic and Transportation Engineering (English Edition)*. 2017, 1-10. <http://dx.doi.org/10.1016/j.jtte.2017.05.006>, DOI: 10.1016/j.jtte.2017.05.006.
14. Qiao, F. Q. Li, L. Yu, Status and Research Topics in Developing Ecological Transportation System within Connected Vehicle Age with Knowledge Discovery in Database Techniques, *Environment Pollution and Climate Change*, vol.1, no.2, 1000124, (2017)
15. Liu, S. Q. Li, F. Qiao, J. Du, and L. Yu, Characterizing the Relationship between Carbon Dioxide Emissions and Vehicle Operating Modes on Roundabouts --A Pilot Test in a Single Lane Entry Roundabout, *Journal of Environment Pollution and Climate Change*, vo.1, no. 2, 1:120, 2017.
16. Qiao, F., Q. Li and L. Yu, Updated Traffic Flow Dispersion Model Considering Effects of In-Vehicle Advisory Messages, *Journal of Civil and Environmental Engineering*. Vol.7, no. 2, 2017, 10.4172/2165-784X.1000270, 2017.
17. Li, Q. F. Qiao and L. Yu, Characterizing Vehicle Operating Mode of Idling Based on Field Test Data from PEMS, *Journal of Civil and Environmental Engineering*, Jan 30, 2017, In press.
18. Li, Q. F. Qiao and L. Yu, Non-linear Models of Light-duty Vehicle Emission Factors Considering Pavement Roughness, *Journal of Civil and Environmental Engineering*, vol. 7, no.1, 7: 268. DOI: 10.4172/2165-784X.1000268.
19. Li, Q., F. Qiao and L. Yu, A Machine Learning Approach for Light-Duty Vehicle Idling Emission Estimation based on Real Driving and Environmental Information, *Journal of Environmental Pollution and Climate Change*, vol. 1, no.1, 1000106, January, 2017.

20. Li, Q., F. Qiao and L. Yu, Risk Assessment of In-vehicle Noise Pollution from Highways, *Journal of Environmental Pollution and Climate Change*, vol. 1, no.1, 1000107, January, 2017.
21. Qiao, F., R. Rahman, Li, Q. and L. Yu, Safe and Environment-Friendly Forward Collision Warning Messages in the Advance Warning Area of a Construction Zone, *International Journal of Intelligent Transportation Systems Research*. DOI: 10.1007/s13177-016-0130-2, vol. 2016, pp.1-14, 2016.
22. Li, Q., F. Qiao and L. Yu, Implications of Advanced Warning Messages on Eliminating Sun Glare Disturbances at Signalized Intersections, *Journal of Traffic and Transportation Engineering (English Edition)*. DOI:10.1016/j.jtte.2016.07.002. vol. 4, no. 4, pp.296-307, August 2016.
23. Qiao, F., L. Liu, W. Long, Li, Q. and L. Yu, Characterizing the Relationships between Real Estate Values and Commuting Time: A Case Study in Texas Suburban Cities, *Urban Planning and Design Research (UPDR)*. DOI: 10.14355/updr.2016.04.001. vol. 4, no.1, pp.1-10, 2016.
24. Qiao, F., P.-H. Kuo, Li, Q., L. Yu, Q. Zhu and Y. Li, "Designing Right-Turn Vehicle Box as a Supplemental Treatment to Eliminate Conflicts with Pedestrians and Bicycles," *Journal of Transportation Technologies (JTTs)*, DOI: 10.4236/jtts.2016.61005. vol. 6, no.1, pp. 43-59, January 2016.
25. Qiao, F., F. Qiao and L. Yu, "Calibration of Car-Following Models Considering the Impacts of Warning Message from Smartphone Application," *Journal of Transportation Technologies*, DOI: 10.4236/jtts.2016.62006. vol. 6, no. 2, pp.61-75, 2016.
26. Qiao, F., R. Rahman, Li, Q. and L. Yu, Identifying Smartphone Based Intelligent Messages for Worker's Crossing in Work Zone, *Journal of Transportation Technologies (JTTs)*, DOI: 10.4236/jtts.2016.62007. vol. 6 no. 2. pp. 76-85, 2016.
27. Qiao, F., R. Rahman, Li, Q. and L. Yu, Identifying demographical effects on speed patterns in work zones using smartphone based audio warning message system, *Journal of Ergonomics*, DOI: 10.4172/2165-7556.1000153, vol. 6, no. 153, pp.1-3, 2016.
28. Li, Q., F. Qiao and L. Yu, Vehicle Emission Implications of Drivers Smart Advisory System for Traffic Operations in Work Zones, *Journal of Air & Waste Management*, DOI:10.1080/10962247.2016.1140095. vol. 66, no. 5, pp.446-455, 2016.
29. Li, Q., F. Qiao and L. Yu, Clustering Pavement Roughness Based on the Impacts on Vehicle Emissions and Public Health, *Journal of Ergonomics*, DOI:10.4172/2165-7556.1000146. vol. 6, no. 1, pp. 1-4, 2016.
30. Hill K, Qiao F, Azimi M, Yu L. An Evaluation of the Effects of Drive- Through Configurations on Air Quality at Fast Food Restaurants. *J Civil Environ Eng.*, 2016. 6:235. doi:10.4172/2165-784X.1000235.
31. Li, Q., F. Qiao, and L. Yu. Calibration of Car-Following Models Considering the Impacts of Warning Message from Smartphone Application. *Journal of Transportation Technologies*, 2016. ISSN Online: 2160-0481. Vol.6, pp.61-75. <http://dx.doi.org/10.4236/jtts.2016.62006>.
32. Li, Q., F. Qiao, and L. Yu. Clustering Pavement Roughness Based on the Impacts on Vehicle Emissions and Public Health. *Journal of Ergonomics*, 2016.Vol.6 Issue 1. Pp. 1000146. doi:10.4172/2165-7556.1000146. Online access: <http://www.omicsgroup.org/journals/clustering-pavement-roughness-based-on-the-impacts-on-vehicleemissions-and-public-health-2165-7556-1000146.pdf>.
33. Li, Q., F. Qiao, and L. Yu. Impacts of Pavement Types on In-vehicle Noise and Human Health. *Journal of Air & Waste Management*, 2016. DOI:



10.1080/10962247.2015.1119217. <http://www.tandfonline.com/doi/full/10.1080/10962247.2015.1119217>. Vol 66, Issue 1, Pages 87-96. Taylor & Francis Publishing Company.

34. Li, Q., F. Qiao, and L. Yu. Vehicle Emission Implications of Drivers Smart Advisory System for Traffic Operations in Work Zones. *Journal of Air & Waste Management*, 2016. DOI:10.1080/10962247.2016.1140095. ISSN: 1096-2247 (Print) 2162-2906 (Online) Journal. Online access: <http://www.tandfonline.com/doi/pdf/10.1080/10962247.2016.1140095>
35. Li, Q., F. Qiao, X. Wang, and L. Yu. Drivers Smart Advisory System Improves Driving Performance at STOP Sign Intersections. *Journal of Traffic and Transportation Engineering (English Edition)*, 2016. DOI: 10.13140/RG.2.1.1983.080.
36. Nabi, M., F. Qiao, B. You, L. Yu. Developing Framework to Test Driving Performance at Left-Turn Movement with In-Vehicle Advance Collision Warning Message. *Journal of Transportation Technologies*. 2016. Vol. 6 No.1, pp 30-42. DOI: 10.4236/jtts.2016.61004.
37. Qiao, F., L. Hill, Xiaobing, W, L. Yu. Measurement of Emissions from Passenger-Picking-up Vehicles at Airport Terminals. *Journal of Environmental Science and Engineering*. 2016. DOI: 10.17265/2162-5298/2016.02.002.
38. Qiao, F., L. Liu, W. Long, Li, Q., L. Yu. Impacts of Average Commuting Time on Housing Prices in Texas Suburban Cities. *Urban Planning and Design Research (UPDR)*, 2016. Volume 4. 2016. DOI: 10.14355/updr.2016.04.001.
39. Qiao, F., P.-H. Kuo, Li, Q., L. Yu, Q. Zhu, and Y. Li. Designing Right-Turn Vehicle Box as a Supplemental Treatment to Eliminate Conflicts with Pedestrians and Bicycles. *Journal of Transportation Technologies*. 2016. Vol. 6, pp 43-59.
40. Qiao, F., R. Rahman, Li, Q., and L. Yu. Identifying demographical effects on speed patterns in work zones using smartphone based audio warning message system. *Journal of Ergonomics*, 2016. DOI: 10.4172/2165-7556.1000153.
41. Qiao, F., R. Rahman, Li, Q., and L. Yu. Identifying Smartphone Based Intelligent Messages for Worker's Crossing in Work Zone. *Special Issues on ITS, Journal of Transportation Technologies*, 2016. ISSN Online: 2160-0481. <http://dx.doi.org/10.4236/jtts.2016.62007>.
42. Rakman, R., L. Yu, and F. Qiao. *Smartphone Messages for Safe Driving in Work Zone: Simulator Tests*. LAMBERT Academic Publishing. 2016. ISBN-13: 978-3-65982632-0; ISBN-10:3659826324; EAN: 9783659826320.
43. Song, G., L. Yu, and Y. Wu. Development of Speed Correction Factors based on Speed-Specific VSP Distributions for Urban Restricted Access Roadways. *Journal of Transportation Engineering*, Volume 142, No. 3, March 2016.
44. You, B., F. Qiao, and L. Yu. An Exploration of CO<sub>2</sub> Emission Models for Horizontal Curves on Freeways. *Journal of Environmental Science & Engineering*. 2016. Vol. 6, Issue. 2. DOI: 10.4172/2165-784X.1000219.
45. You, B., F. Qiao, and L. Yu. Drivers' Reaction of Warning Messages in Work Zone Termination Areas with Left Turn. *Journal of Transportation Technologies*. 2016. Vol. 6 No.3. DOI: 10.4236/jtts.2016.63013.
46. Li, Q., F. Qiao, and L. Yu. Fuzzy lane-changing models with socio-demographics and Vehicle-to-Infrastructure system based on a simulator test. *Journal of Ergonomics*, 2015. <http://dx.doi.org/10.4172/2165-7556.1000144>. ISSN: 2165-7556 JER, an open access journal. Volume 5 • Issue 4 • 1000144.

47. Li, Q., F. Qiao, and L. Yu. Implications of Advanced Warning Messages on Eliminating Sun Glare Disturbances at Signalized Intersections. *Journal of Traffic and Transportation Engineering (English Edition)*, 2015.
48. Li, Q., F. Qiao, and L. Yu. Modeling Total Ammonia Nitrogen Concentration: A Case Study in Houston. *Journal of Pollution Effects & Control*, 2015. DOI:10.4172/2375-4397.1000149. Online access: <http://www.esciencecentral.org/journals/modeling-total-ammonia-nitrogen-concentration-a-case-study-in-houston-ship-channel-and-upper-lower-galveston-bay-2375-4397-1000149.pdf>
49. Li, Q., F. Qiao, and L. Yu. Will Vehicle and Roadside Communications Reduce Emitted Air Pollution? *International Journal of Science and Technology*, Vol. 5(1), 2015, pp. 17-23.
50. Li, Q., F. Qiao, L. Yu. Socio-demographic impacts on lane-changing response time and distance in work zone with drivers' smart advisory system, *Journal of Traffic and Transportation Engineering (English Edition)*, 2015. Volume 2, number 5. Elsevier Publishing. <http://dx.doi.org/10.1016/j.jtte.2015.08.003>.
51. Li, Q., F. Qiao, and L. Yu. Data Dependent Modeling of New Contamination Cases from Urban Historic Groundwater Records. *Journal of Environmental Science and Engineering, A 3*, 2014, pp. 250-256.
52. Qiao, F., J. Jia, L. Yu, Li, Q., and D. Zhai. Drivers' Smart Assistance System Based on Radio Frequency Identification. In *Transportation Research Record: Journal of Transportation Research Board*, No. 2458, Transportation Research Board of the National Academies, Washington, DC, 2014, pp. 37-46.
53. Qiao, F., L. Liu, and L. Yu. Quantifying Changes of Mobile Source Air Pollution in Metropolitan Areas Using Vehicle Emission Model MOVES. *Journal of Environmental Science and Engineering, A 3*, 2014, pp. 336-340.
54. K., R. Goodwin, F. Qiao, A. Miller. Exposing Minority Students to Transportation and STEM-related Careers through Summer Education Programs. In *Transportation Research Record: Journal of Transportation Research Board*, No. 2328, Transportation Research Board of the National Academies, Washington, DC, 2013, pp. 16-24.
55. Yu, L., X. Zhang, F. Qiao, and Y. Qi. Genetic Algorithm-based Approach to Develop Driving Schedules to Evaluate Greenhouse Gas Emissions from Light-Duty Vehicles. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2191. Transportation Research Board of the National Academies, Washington, D.C., 2010, pp. 166-173.
56. Zhu, Q., F. Qiao, and L. Yu. Toll Roads Distribution. *Journal of Systemics, Cybernetics and Informatics*. 8, No. 4, 2010, pp. 76-79.
57. Yu, L., M. Liu, Q. Shi, and G. Song. Macroscopic Congestion Intensity Measurement Model Based on Cumulative Logistic Regression. *The Open Transportation Journal*, Special Issue on "Traffic Safety and Driving Behavior Studies, <http://bentham.org/open/totj/>, ISSN: 1874-4478, April 2010.
58. Qi, Y., X. Chen, A. Guo, and L. Yu. Protected-Permissive Left-Turn Signal Control Mode: New Analytical Approach to Estimate Operational Benefit and Safety Cost. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2149. Transportation Research Board of the National Academies, Washington, D.C., 2010, pp. 37-49.
59. Zhu, Q., F. Qiao, and L. Yu. (2010). Toll Roads Distribution in The United States. *Online Journal of Systemics, Cybernetics and Informatics (JSCI)*. Vol. 8, number 4, 2010, <http://www.iiisci.org/journal/sci/Contents.asp?var=&next=ISS8804>

60. Yu, L., X. Zhang, F. Qiao, and Y. Qi. (2010). Genetic Algorithm-based Approach to Develop Driving Schedules to Evaluate Greenhouse Gas Emissions from Light-Duty Vehicles. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2191. Transportation Research Board of the National Academies, Washington, D.C., 2010, pp. 166-173.
61. Yu, L., Z. Wang, F. Qiao, and Y. Qi. (2008). Approach to Development and Evaluation of Driving Cycles for Classified Roads Based on Vehicle Emission Characteristics. In *Transportation Research Record: Journal of Transportation Research Board (TRB) series*, No. 2058. Transportation Research Board of the National Academies. Washington, D.C., 2008, pp. 58-67. DOI: 10.3141/2058-08.
62. Qiao F., H. Liu, and L. Yu. (2006). Incorporating Wavelet Decomposition Technique to Compress TransGuide ITS Data. *Transportation Research Record*, No. 1968, pp. 63-74. National Research Council, Washington, DC, 2006.
63. Qiao F., L. Yu, and M. Vojtisek-Lom. (2005), On-Road Vehicle Emission and Activity Data Collection and Evaluation in Houston, Texas. *Transportation Research Record*, No. 1941. National Research Council, Washington, DC, 2005.
64. Yu, L., F. Qiao, and Y. Zhang. (2005), Improved Framework and Systematic Calibration for Left-Turn Signal Change Intervals. *Transportation Research Record*, No. 1925. National Research Council, Washington, D.C., 2005.
65. Yu. L., F. Qiao, J. Liu. (2005). VMT Estimation Model based on Traffic Count and Link Attributes. *Journal of Transportation Systems Engineering and Information Technology*. v. 5, n. 1. February, 2005. pp. 38-46. In Chinese.
66. Yu. L., F. Qiao, J. Liu. (2005). VMT Model for Mobile Emission Estimation. *Journal of Environmental Protection in Transportation*, v. 26, n. 1. February, 2005. pp. 7-9, 22. In Chinese.
67. Yu, L., F. Qiao, Y. Zhang, and Z. Tian. (2004), Improved Red-Clearance Intervals Based-on Observed Turning Times for Left-Turn Movement. *Journal of Transportation Research Board series*, *Transportation Research Record*, 1862, National Research Council, Washington, D.C., 2004, pp. 36-43.
68. Qiao, F., L. Yu and X. Wang. (2004), Double-Sized Optimization of Aggregation Level for ITS Data. *Journal of Transportation Research Board series*, *Transportation Research Record*, 1879, National Research Council, 2004, pp.80-88.
69. Yu, L., X. Chen, Y. Geng, F. Qiao, X. Wang, M. Liu, Z. Yuan. (2004), ITS Data Aggregation Based-on Wavelet Transformation. *Journal of Tsinghua University (Sci & Tech)*. v. 44, n. 6, 2004. pp. 793-6. In Chinese.
70. Qiao, F., X. Wang and L. Yu. (2003). Optimizing Aggregation Level for ITS Data based on Wavelet Decomposition. *Journal of Transportation Research Board series*, *Transportation Research Record*, 1840, National Research Council, 2003, pp. 10-20.
71. Yu, L., F. Qiao, L. Xu, X. Chen, Y. Geng, J. Wu, and Z. Yuan. (2003). ITS Data Archiving Strategy Based-on Sampling Approach. *Journal of Transportation Systems Engineering and Information*. v. 3, n. 4, pp. 16-26, November, 2003.
72. Qiao F., P. Yi, H. Yang and S. Devaradonda (2002), Fuzzy Logic Based Intersection Delay Estimation, *Journal of Mathematical and Computer Modelling*, v. 36, n. 11.
73. Yang H. and F. Qiao (2002), An Equity-Based Passenger Flow Control Model with Application to Hong Kong - Shenzhen Border-Crossing, *The Journal of Advanced Transportation*. v. 36, n. 2, Spring/Summer, 2002, pp. 169-185.

74. Qiao F., H. Yang and W. Lam (2001), Intelligent Simulation and Prediction of Traffic Flow Dispersion, *International Journal of Transportation Research Part B* 35, pp. 843-863.
75. Yang, H. and F. Qiao (1998), Neural Network Approach to Classification of Traffic Flow States, *ASCE Journal of Transportation Engineering*. v. 124, n. 6, pp. 521-525, Nov-Dec, 1998.
76. Qiao F. (1991), Freeway Traffic Control System, *East China Highway*, March, 1991. In Chinese.
77. Qiao F. (1991), Freeway Traffic Detecting System, *East China Highway*, May 1991. In Chinese.

#### Selected Conference Proceedings

1. Khan, M., F. Qiao and L. Yu, "Wavelet Analysis to Characterize Dependency of Vehicular Emissions on Road Roughness," *Proceedings of the 2017 Transportation Research Board Annual Meeting*, paper #: 17-01471, Washington DC. January 8-12, 2017.
2. Du, J., F. Qiao and L. Yu, "Planning of Campus Area Nighttime Public Transportation System Based on GIS and Operation Research," *Proceedings of the 2017 Transportation Research Board Annual Meeting*, paper #: 17-01471, Washington DC. January 8-12, 2017
3. Munni, J., Azimi, M., F. Qiao, L. Yu. "Dilemma Zone Driving Behavioral Analysis at Signalized Intersections under Foggy Weather Condition with In-Vehicle Advance Warning Message," *Proceedings of the 2017 Transportation Research Board Annual Meeting*, paper #: 17-01471, Washington DC. January 8-12, 2017
4. Li, Q., F. Qiao and L. Yu, "Developing Environmental and Public Health Index for the Design of Freeway Weaving Segments," *Proceedings in the 30<sup>th</sup> ICTPA Annual Conference – Transportation for Tomorrow*, Paper #: 116, Houston, May 19-21, 2017.
5. Li, Q., F. Qiao and L. Yu, "Using Machine Learning Methodology to Classify Vehicle Operation Model Identification for Better Estimation of Exhaust Emissions," *Proceedings in the 110<sup>th</sup> Air & Waste Management Association (AWMA) Annual Conference & Exhibition*, Pittsburgh, PA. June 5-8, 2017.
6. Li, Q., F. Qiao and L. Yu, "Modeling Vehicle Emissions on Freeway Weaving Segments," *Proceedings in the 110<sup>th</sup> Air & Waste Management Association (AWMA) Annual Conference & Exhibition Bridging Environment, Energy & Health*, Pittsburgh, PA. June 5-8, 2017.
7. Liu, S., Li, Q., F. Qiao and L. Yu, "Characterizing Vehicle Exhaust Emissions under Different Ramp Metering Strategies," *Proceedings in the 110<sup>th</sup> Air & Waste Management Association (AWMA) Annual Conference & Exhibition*, Pittsburgh, PA. June 5-8, 2017.
8. Saldarriaga, D., B. You, L. Gao, F. Qiao and Li, Q., "Evaluation of Transportation and Economic Impact of Short Line Railroads in Texas," *Proceedings of the 2017 Transportation Research Board Annual Meeting*, paper #: 17-03855, Washington DC. January 8-12, 2017.
9. Li, Q., F. Qiao and L. Yu, "Modeling Texas Emission Factors Considering Pavement Roughness Using On-board Emission Measurement," *Proceedings of the 109<sup>th</sup> Air & Waste Management Association (AWMA)*, New Orleans, LA, USA, Paper #: 1195, June 20-23, 2016.
10. Li, Q., F. Qiao and L. Yu, "Texas Specific Operating Mode Bin One Based on Field Test Data from PEMS," *Proceedings of the 109<sup>th</sup> Air & Waste Management Association (AWMA)*, New Orleans, LA, USA, Paper #: 1194, June 20-23, 2016.

11. Li, Q., F. Qiao and L. Yu, "Calibrating Emission Factor for Highways Considering Pavement Roughness Information," Proceedings of Air Quality Measurement, Methods and Technology, Chapel Hill, NC, USA, Paper #: 80, March 15-17, 2016.
12. Li, Q., F. Qiao and L. Yu, "Estimating Vehicle Idle Emissions Based on On-Board Diagnostic II Data," Proceedings of the Air Quality Measurement, Methods and Technology, Chapel Hill, NC, USA, Paper #: 70, March 15-17, 2016.
13. Qiao, F., Li, Q. and L. Yu, "Neural Network Modeling of In-Vehicle Noises with Different Roadway Roughness," Proceedings of the 11th Asia Pacific Transportation Development Conference and 29th ICTPA Annual Conference - Bridging the East and West: Theories and Practices of Transportation in the Asia Pacific. DOI: 10.1061/9780784479810.020. Hsinchu, Taiwan, paper #: 74, May 27-29, 2016.
14. Li, Q., F. Qiao, Y. Qiao and L. Yu, "Implications of Smartphone Messages on Driving Performance Along Local Streets," Proceedings of the 11th Asia Pacific Transportation Development Conference and 29th ICTPA Annual Conference - Bridging the East and West: Theories and Practices of Transportation in the Asia Pacific. DOI: 10.1061/9780784479810.031. Hsinchu, Taiwan. Paper #: 81, May 27-29, 2016.
15. Li, Q., F. Qiao, Y. Qiao and L. Yu, "Impacts of Traffic Signal Coordination on In-vehicle Noises along an Arterial Road in Houston, USA," Proceedings of the 11th Asia Pacific Transportation Development Conference and 29th ICTPA Annual Conference - Bridging the East and West: Theories and Practices of Transportation in the Asia Pacific. DOI: 10.1061/9780784479810.022. Hsinchu, Taiwan. Paper #: 80, May 27-29, 2016.
16. Qiao, F., K. Zhang, Li, Q., B. You and L. Yu, "Effects and Framework to Estimate Environmental and Public Health Impacts of Infill Development for Urban Planning," Proceedings of the ASCE International Conference on Transportation & Development (ICTD 2016), DOI:10.1061/9780784479926. Houston, Texas, Paper #430, June 26-29, 2016.
17. Nabi, M., F. Qiao, and L. Yu. (2016). Impact of Vehicle-to-Vehicle Warning Message to Reduce Right-Angle Collisions at Intersection - A Driving Simulator Test. Paper #420. Accepted for Publication in the Proceedings of the ASCE International Conference on Transportation & Development (ICTD), June 26-29, Houston, TX.
18. Ying, W. F. Qiao, and L. Yu. (2016). Evaluation of the Impact of Work Zone on Vehicular Emissions in Consideration of Roughness Profile. Accepted for the Presentation and Publication in Proceedings of Transportation Research Board (TRB) annual meeting of National Science of Academy, January 10-13, 2016. Washington DC.
19. Tang, P., M. Azimi, F. Qiao, and L. Yu. (2016). Examining The Impact of Eco-Driving Advising Strategies on Vehicle Emissions for Vehicles Travelling Within Intersection Vicinities. Accepted for the Presentation and Publication in Proceedings of Transportation Research Board (TRB) annual meeting of National Science of Academy, January 10-13, 2016. Washington DC.
20. Li, Z., L. Yu, F. Qiao, and J. Wang. Feasibility Study of Using Driving Simulator to Develop Operating Mode Distributions for Emission Analysis. 94th Transportation Research Board Annual Meeting, Transportation Research Board of the National Academies, Washington, DC, 2015.
21. You, B., F. Qiao and L. Yu. (2015). Implications of Left-turn Warning Messages in Work Zone Termination Areas. Accepted for publication in the proceedings of the 28th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), May 14 ~ 16, 2015, Los Angeles, USA.

22. Ying, W., M. Azimi, F. Qiao, P.-H. Kuo, P. Liu and L. Yu. (2015). Pilot Test of Vehicular Emissions under Different Pavement Types in Houston. Accepted for publication in the proceedings of the 28th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), May 14 ~ 16, 2015, Los Angeles, USA.
23. Zhao, Q., Zhu, S., Yu, L. and Qiao, F. (2015). Experimental Development and Testing of a Smartphone Eco-driving App. Publication in the Proceedings of the 94th Transportation Research Board Annual Meeting, National Academy of Sciences, Washington, DC, January 11-15, 2015
24. Hoover, C., L. Yu, F. Qiao, M. Azimi. (2015). Emission Implications of Alternative Origin-Destination Routes: Case Study in Houston, Texas. Publication in the Proceedings of the 94th Transportation Research Board Annual Meeting, National Academy of Sciences, Washington, DC, January 11-15, 2015.
25. Wu, Y., F. Qiao, and L. Yu. (2015). Modeling of Real Time Emission Related to Vehicle Speed and RPM on Driving Mode. Publication in the Proceedings of the 107th Air & Waste Management Association (AWMA), June 22-25, 2015. Raleigh, North Carolina, USA.
26. Ehson Khademi, F. Qiao, M. Azimi, and L. Yu. (2015). Freight Movement by Heavy Duty Diesel Trucks Emission in Port of Houston Area. Publication in the Proceedings of the 56th Annual Transportation Research Forum in Atlanta, Georgia, USA.
27. Li, Q., F. Qiao and L. Yu, "Testing of In-vehicle Noises when Driving on Freeways with Different Pavement Types," Proceedings of the 108th Air & Waste Management Association (AWMA), Raleigh, North Carolina, USA. Paper #: 338, June 22-25, 2015.
28. Li, Q., F. Qiao and L. Yu, "Implications of Wireless Communication System for Traffic Operations on Vehicle Emissions," Proceedings of the 108th Air & Waste Management Association (AWMA), Raleigh, North Carolina, USA. Paper #: 336, June 22-25, 2015.
29. You, B., F. Qiao, Li, Q. and L. Yu, "Noise Reduction Effects due to Various Acoustic Barriers during Infill Development Process," Proceedings of the 108th Air & Waste Management Association (AWMA), Raleigh, North Carolina, USA. Paper #: 340, June 22-25, 2015.
30. Munni, J., F. Qiao, Li, Q. and L. Yu, "Driving Behavior and Emission Analysis at Yellow Interval with Advanced Warning Message under Foggy Weather Condition: A Simulator Test," Proceedings of the 56th Annual Transportation Research Forum in Atlanta, Georgia, USA, March 12-14, 2015
31. Li, Q., F. Qiao and L. Yu, "Update Flow Dispersion Model to Incorporate Impacts of V2I Advanced Warning Message," Proceedings of the 28th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), Los Angeles, USA. Paper #: 118, May 14 ~ 16, 2015.
32. Li, Q., F. Qiao, X. Wang and L. Yu, "Driving Performance Test of Stop Signs with Drivers Smart Advisory System," Proceedings of the 28th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), Los Angeles, USA. Paper # 119, May 14 ~ 16, 2015.
33. R. Rahman, F. Qiao, Li, Q., L. Yu and P.-H. Kuo, "Smart Phone Based Forward Collision Warning Message in Work Zones to Enhance Safety and Reduce Emissions," Proceedings of the 94th Transportation Research Board Annual Meeting, Washington, DC, paper #: 15-0648, January 11-15, 2015.
34. Li, Q., F. Qiao and L. Yu, "Calibration of Traffic Flow Dispersion Model with Vehicle to Infrastructure Communication System in Effect," Proceedings of The National Technical Association (NTA) 86th Annual National Conference. Cleveland, Ohio, September 24-26, 2014.

35. Li, Q., F. Qiao and L. Yu, "Impacts of Vehicles to Infrastructure Communication Technologies on Vehicle Emissions," Proceedings of the International Conference on Environmental Science and Technology, American Academy of Sciences, Houston, TX, USA, Paper #: 944, June 9-13, 2014.
36. Li, Q., F. Qiao and L. Yu, "Prediction of County-Level New Contamination Cases from Historic Groundwater Contamination Cases through Data Dependent Modeling," Proceedings of the International Conference on Environmental Science and Technology, American Academy of Sciences, Houston, TX, USA, Paper #: 945, June 9-13, 2014.
37. F. Qiao, Li, Q. and L. Yu, "Testing Impacts of Work Zone X2V Communication System on Safety and Air Quality in Driving Simulator," Proceedings of the 21st ITS World Congress, Detroit, USA, Paper #: TS64, September 7-11, 2014.
38. Li, Q., F. Qiao, and L. Yu (2014). Time series modeling of total ammonia nitrogen concentration in Houston ship channel and Galveston Bay. Publication in Proceedings of the International Conference in Environmental Engineering and Computer Applications (ICEECA). December 25-26, 2014, Hong Kong.
39. Bo Wei, F. Qiao, Zhihu Huang, Juan Ma, and Lei Yu. (2014). A GIS-Based Spatial Analysis of Air Pollution in Nanning. Publication in the Proceedings of the 2014 International Conference of Environmental Science and Technology (IC EST2014) by American Academy of Sciences, June 9 - 13, 2014, Crowne Plaza, Houston, Texas, USA. Paper Number: IC EST2014 # 948.
40. Hill, K., F. Qiao, M. Azimi, and L. Yu. (2014). Impacts of Restaurant Drive-Thru Configurations on Vehicle Emissions. Publication in the Proceedings of the 93rd Transportation Research Board Annual Meeting, Transportation Research Board of the National Academies, Washington, DC, Jan 12-16, 2014.
41. Keziah Hill, Mehdi Azimi, F. Qiao, and Lei Yu. (2014). Vehicle Emission Analysis at Restaurant Drive-Through Facilities with Different Configurations, Publication in the Proceedings of the 2014 International Conference of Environmental Science and Technology (IC EST2014) by American Academy of Sciences, June 9 -13, 2014, Crowne Plaza, Houston, Texas, USA. Paper Number: IC EST2014 # 959.
42. Larry Hill, F. Qiao, Keziah Hill, and Lei Yu. (2014). Vehicle Emission Estimation While Picking Up Passengers At Airport Terminals. Publication in the Proceedings of the 2014 International Conference of Environmental Science and Technology (IC EST2014) by American Academy of Sciences, June 9 -13, 2014, Crowne Plaza, Houston, Texas, USA. Paper Number: IC EST2014 # 947.
43. Li, Q., F. Qiao, and L. Yu (2014). Prediction of County-Level New Contamination Cases from Historic Groundwater Contamination Cases through Data Dependent Modeling. Publication in the Proceedings of the International Conference on Environmental Science and Technology, American Academy of Sciences, Houston, TX, June 9-13, 2014.
44. Ling Liu, F. Qiao, and Lei Yu. (2014). Charactering Air Pollutant Effects Caused by Extra Commuting Time due to Housing Price Factor. Publication in Proceedings of the 2014 International Conference of Environmental Science and Technology (IC EST2014) by American Academy of Sciences, June 9 -13, 2014, Crowne Plaza, Houston, Texas, USA. Paper Number: IC EST2014 # 972.
45. Po-Hsien Kuo, F. Qiao, and Lei Yu. (2014). Development of Vehicle Emission Database for Air Quality Analyses. Publication in Proceedings of the 2014 International Conference of Environmental Science and Technology (IC EST2014) by American Academy of Sciences, June 9 - 13, 2014, Crowne Plaza, Houston, Texas, USA. Paper Number: IC EST2014 # 944.

46. Qiao, F., P. Kuo, and L. Yu. (2014). Fuzzy Modeling of Pedestrian Related Conflict Events at Intersections. Publication in Proceedings of the 93rd Transportation Research Board Annual Meeting, Transportation Research Board of the National Academies, Washington, DC, Jan 12-16, 2014.
47. Qiao, F., J. Jia, L. Yu, Q. Li, and D. Zai. (2014). A Drivers' Smart Assistance System to Enhance Safety and Reduce Emissions in Work Zone. Proceedings of Transportation Research Board annual meeting, Washington, DC, January 12-16, 2014.
48. Qiao, F., L. Liu, W. Long, and L. Yu. (2014). Impacts of Average Commuting Time on Housing Prices in Texas Suburban Cities. Publication in Proceedings of the 93rd Transportation Research Board Annual Meeting CD-ROM, Transportation Research Board of the National Academies, Washington, DC, January 12-16 2014.
49. Qiao, F., J. Jia, L. Yu. (2013). A Short Range Vehicle to Infrastructure System at Work Zones and Intersections (paper # 1027). Publication in the proceedings of and win the "Best Paper Award" in the 2013 Intelligent Transportation Society (ITS) World Conference in Tokyo, Japan. October 14-18, 2013.
50. Qiao, F. L. Liu, and L. Yu. (2013). Impacts of Transportation Costs on Real Estate Values in Houston Metropolitan Area (paper # 26-158). Presentation and publication in the proceedings of the 26th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), May 24-26, 2013, Tampa, Florida, USA.
51. Qiao, F., Hill, L., and Yu, L. (2013). GPS Based Emission Estimation at Airport Terminals for Passenger-Picking-Up Vehicles (paper # 26-163). Presentation and publication in the proceedings of the 26th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), May 24-26, 2013, Tampa, Florida, USA.
52. Scott, K, and Qiao, F. (2013). Can Small and Developing Nations with National Flag Air Carriers Compete with Larger Influential Foreign Carriers (paper # 26-160). Presentation and publication in the proceedings of the 26th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), May 24-26, 2013, Tampa, Florida, USA.
53. Li, Q., Qiao, F., Yu, L. and Wang, X., (2013). Impacts of P2V Wireless Communication on Safety and Environment in Work Zones through Driving Simulator Tests (paper # 26-179). Presentation and publication in the proceedings of the 26th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), May 24-26, 2013, Tampa, Florida, USA.
54. Wang, X., Qiao, F., Yu, L. and Li, Q. (2013). Short-range Wireless Systems for Vehicle-to-Infrastructure Communications (paper # 26-180). Presentation and publication in the proceedings of the 26th Annual Conference of the International Chinese Transportation Professionals Association (ICTPA), May 24-26, 2013, Tampa, Florida, USA.
55. Qiao, F., Jia, J., and Yu, L. (2013). An RFID Based Smart Warning System at Signalized Intersection. Presentation and Publication in the proceedings of the 13th World Conference on Transport Research (WCTR). Rio de Janeiro, Brazil, July 15-18, 2013.
56. Qiao, F., Qiao, Y., and Yu, L. (2013). Developing Wireless Warning System to Enhance the Workers Safety in Work Zone Area. Presentation and Publication in the proceedings of the 13th World Conference on Transport Research (WCTR). Rio de Janeiro, Brazil, July 15-18, 2013.
57. Qiao, F. Wang, X.; Yu, L.; (2013). Using Radio Frequency Identification to Improve Drivers' Awareness of Stop Sign at Unsignalized Intersections. Presentation and Publication in Proceedings of Transportation Research Board (TRB) annual meeting of National Science of Academy, January 13-17, 2013. Washington DC.



58. Godazi, K.; Goodwin, G.; Qiao, F.; Miller, M. (2013). Exposing Minority Students to Transportation and STEM-Related Careers through Summer Education Programs. Presentation and Publication in Proceedings of Transportation Research Board (TRB) annual meeting of National Science of Academy, January 13-17, 2013. Washington DC.
59. Wang, J.; Yu, L.; Qiao, F. (2013). Traffic Microsimulation Approach to Evaluation of Vehicle Emissions on One-Way Versus Two-Way Streets: Case Study in Downtown Houston, Texas. Presentation and Publication in Proceedings of Transportation Research Board (TRB) annual meeting of National Science of Academy, January 13-17, 2013. Washington DC.
60. Qiao, F., Wang, J., Wang, X., Jia, J. and Yu, L. (2012). A RFID Based e-STOP Sign and Its Impacts to Vehicle Emissions. Presented and Published in Proceedings of The 15th International IEEE Conference on Intelligent Transportation Systems – ITSC 2012. Anchorage, Alaska, USA. September 16-19, 2012.
61. Qiao, Y., and Qiao, F., (2012). Person-to-Infrastructure (P2I) Wireless Communications for Work Zone Safety Enhancement. Presented and Published in Proceedings of The 15th International IEEE Conference on Intelligent Transportation Systems – ITSC 2012. Anchorage, Alaska, USA. September 16-19, 2012.
62. Qiao, F., K.-H. Kuo, Yu, L. (2012). A Practical Intelligent Method to Quickly Screen Pedestrian Related Potential Conflicts with Motor Vehicles. Presentation and ASCE publication in proceedings of the 9th Asia Pacific Transportation Development Conference & 25th ICTPA Annual Conference, Chongqing, China, June 29-July 2, 2012.
63. Qiao, F., Yu, L., Fatholahzadeh, R., and Yuan, X. (2012). Smart Guide Signing System Using RFID as an Intelligent Sensor. Presentation and publication in proceedings of the ASCE Earth & Space 2012 Conference, Pasadena, CA, April 15-18, 2012. Paper ID: 285.
64. Qiao, F., Godazi, K., and Yu, L. (2012). Increasing Interests of High School Students to Engineering through Summer Education. Presentation and publication in proceedings of the ASCE Earth & Space 2012 Conference, Pasadena, CA, April 15-18, 2012. Paper ID: 272.
65. Qiao, F., Korzhova, P., and Yu, L. (2012). Testing Drivers' Understanding of Pricing Signs Using Driving Simulator. Presentation and publication in proceedings of the 91st TRB Annual Meeting, Washington DC, January 22-26, 2012. TRB 12-0438
66. Qiao, F., R. Zhang, and L. Yu (2011). Using NASA-Task Load Index to Assess Drivers' Workload on Freeway Guide Sign Structures. Proceedings of the 11th International Conference of Chinese Transportation Professionals: ICCTP 2011: Towards Sustainable Transportation Systems, August 14-17, 2011, Nanjing, China. ASCE Conf. Proc. DOI: 10.1061/41186(421)428.
67. Qiao, F., Q. Zhu, and L. Yu (2011). Social Media Applications to Publish Dynamic Transportation Information on Campus. Proceedings of the 11th International Conference of Chinese Transportation Professionals, ICCTP 2011: Towards Sustainable Transportation Systems, August 14-17, 2011, Nanjing, China. ASCE Conf. Proc. DOI: 10.1061/41186(421)426.
68. Qiao, F., R. Ge and L. Yu (2010). A Genetic Algorithm Based Microscopic Simulation to Develop the Evacuation Plan for Multi-Institutional Centers. Published in the proceedings of 17th ITS World Congress, Busan, 2010.
69. Qiao, F., R. Gampala and L. Yu (2010). Advanced Traffic Devices in Bicycle and Pedestrian Crossings at Freeway Interchanges. Published in the proceedings of 17th ITS World Congress, Busan, 2010.
70. Qiao, F., R. Ge and L. Yu (2010). A Genetic Algorithm Based Microscopic Simulation to Develop the Evacuation Plan for Multi-Institutional Centers, Presentation and publication in the

proceedings of The Intelligent Transportation Society (ITS) of America's 2010 Annual Meeting and Exposition, May 3-5, 2010, George R. Brown Convention Center, Houston, Texas.

71. Qiao, F., Q. Zhu, P.-H. Kuo, Y. Li, and L. Yu (2010). Innovative Sensors and Devices Applied in Bicycle and Pedestrian Crossings at Freeway Interchanges, Presented at and published in the proceedings of the Earth & Space 2010 Conference – The 12th ASCE Aerospace Division Biennial International Conference on Engineering, Science, Construction and Operations in Challenging Environment. Honolulu, HI; March 14-17, 2010.
72. Qiao, F. and L. Yu (2010). Encouraging Transportation Students to be Actively Involved in Course Teaching Procedure, Presented at and published in the proceedings of the Earth & Space 2010 Conference – The 12th ASCE Aerospace Division Biennial International Conference on Engineering, Science, Construction and Operations in Challenging Environment. Honolulu, HI; March 14-17, 2010.
73. Qiao, F., Z. Yan, and L. Yu. (2010). Simulation of Car-Following Behavior Based on Two-Order Fuzzy Table Look-up Schemes. Paper number: TRB 10-2972. Presented at and published in proceedings of the 89th Annual Meeting of Transportation Research Board (TRB) Annual Meeting, Washington, DC, January 10-14, 2010.
74. Qiao, F., H. Wang, and L. Yu. (2010). An Alternative Supplemental Guide Signing Procedure for Urban Freeways, TRB 10-2643. Presented at and published in proceedings of the 89th Annual Meeting of Transportation Research Board (TRB) Annual Meeting, Washington, DC, January 10-14, 2010.
75. Qiao, F., Z. Yan, Q. Zhu, and L. Yu. (2010). Evaluating Toll Facility Signage Sequence Through FLASH-Based Simulation, TRB 10-1893. Presented at and published in proceedings of the 89th Annual Meeting of Transportation Research Board (TRB) Annual Meeting, Washington, DC, January 10-14, 2010.
76. Yu, L., X. Zhang, Y. Qi, and F. Qiao (2010). Genetic Algorithm-Based Approach for Development of Driving Schedules to Evaluate Greenhouse Gas Emissions from Light-Duty Vehicles, TRB 10-0749. Presented at and published in proceedings of the 89th Annual Meeting of Transportation Research Board (TRB) Annual Meeting, Washington, DC, January 10-14, 2010.
77. Qiao, F., Q. Zhu, P.-H. Kuo, Y. Li, and L. Yu (2009). Fuzzy FC-Means Based Stop Line and Cross-walk Placement at Right Turn Vehicle Exclusive Lane, Presented in the 14th Online World Conference on Soft Computing in Industrial Applications, November 17-29, 2009.
78. Qiao, F., Z. Yan, and L. Yu. (2009). Dynamic Traffic Assignment Model Considering Drivers' Unfamiliarity with Network Layout. Presented and published in the proceedings of the 12th International IEEE Conference on Intelligent Transportation Systems (ITSC 09), St. Louis, Missouri, U.S.A., October 3-7, 2009.
79. Qiao, F., R. Zhang, Z. Chen, R. Fatholahzadeh, L. Yu, and X. Yuan. (2009). Review of Radio Frequency Identification Applications in Transportation. Presented and published in the proceedings of the 88th Transportation Research Board (TRB) Annual Meeting, Washington, DC, January 11-15, 2009.
80. Qiao, F., R. Ge and L. Yu. (2009). Evacuation Modeling in Small and Dense Area. Presented and published in the proceedings of the 88th Transportation Research Board (TRB) Annual Meeting, Washington, DC, January 11-15, 2009.
81. Qiao, F., X. Liu and L. Yu. (2008). Modeling Lane Change Distance for Sign Placement. Proceedings of the 87th Transportation Research Board Annual Meeting, Washington, DC, January 13-17, 2008.

82. Yu, L., Z. Wang, F. Qiao, and Y. Qi. (2008). Approach to Development and Evaluation of Driving Cycles for Classified Roads Based on Vehicle Emission Characteristics. Proceedings of the 87th Transportation Research Board Annual Meeting, Washington, DC, January 13-17, 2008.
83. Yu, L., S. Jia, F. Qiao, and Y. Qi. (2008). Research on Transportation Related Emissions: Current Status and Future Directions. Proceedings of the 87th Transportation Research Board Annual Meeting, Washington, DC, January 13-17, 2008.
84. Qiao, F., L. Ma and L. Yu. (2008). Fuzzy Logic and Simulation based Eligible Criteria for Texas Major Traffic Generators. Presented at the Committee Meeting on Artificial Intelligence and Advanced Computing Applications (ABJ70) of the 87th Transportation Research Board Annual Meeting, Washington, DC, January 13-17, 2008.
85. Qiao, F., R. Ge, and L. Yu. (2007). Fuzzy Evaluation of Contra-flow Evacuation Plans in Texas Medical Center, Proceedings of the 12th Online World Conference on Soft Computing in Industrial Applications, October 16-26, 2007.
86. Qiao, F., X. Liu, and L. Yu. (2007). Arrow Exit Sign Placement on Highway Using Fuzzy Table Look-Up Scheme, Proceedings of the 12th Online World Conference on Soft Computing in Industrial Applications, October 16-26, 2007.
87. Qiao, F., H. Wang, X. Liu, and L. Yu. (2007). Using Driving Simulator for Logo and Symbol Design at Interchanges for Major Traffic Generator, Proceedings of the Driving Simulator Conference (DSC) 2007 North America in Iowa City, Iowa, September 12-14, 2007.
88. Qiao, F., X. Liu, and L. Yu. (2007). Using Driving Simulator for Advance Placement of Guide Sign Design for Exits along Highways, Proceedings of the Driving Simulator Conference (DSC) 2007 North America in Iowa City, Iowa, September 12-14, 2007.
89. Qiao, F., and L. Yu. (2007). Potential Applications of Radio Frequency Identification (RFID) in Transportation Operation and Intelligent Transportation System (ITS), Proceedings of The 4th International Conference on Cybernetics and Information Technologies, Systems and Applications: CITSA 2007, jointly with The 5th International Conference on Computing, Communications and Control Technologies: CCCT 2007, Orlando, Florida, USA, July 12-15, 2007.
90. Qiao, F., and K. Brown, and L. Yu. (2007). Investigating ITS Technologies and Applications to Mitigate Terrorism Effects in Marine Transportation. Proceedings of the 11th World Conference on Transportation Research (WCTR), Berkeley, California, USA, June 24-28, 2007.
91. Qiao, F., Wang, Z., and Yu, L. (2007). On-Road Vehicle Emissions in Beijing, China: Experimental Study Using Portable Emission Measurement System. Paper Number: 07-1962. Proceedings of the 86th Annual Transportation Research Board Meeting, National Research Council, Washington, DC, January 21-25, 2007.
92. Qiao, F., Yu, L., and Li, L. (2007). Estimating Impact of Nonrecurring Congestion on Vehicle Emissions. Paper Number: 07-0427. Proceedings of The 86th Annual Transportation Research Board Meeting, National Research Council, Washington, DC, January 21-25, 2007.
93. Yu., L., F. Qiao, and Li, L. (2007). Bayesian-Based Approach for Updating Characteristics of Crash Data: Frequency, Duration, and Lanes Blocked. Proceedings of The 86th Annual Transportation Research Board Meeting, National Research Council, Washington, DC, January 21-25, 2007.
94. Qiao, F., B. McKenzie, and L. Yu. (2006). Vehicle Turning Impacts to Emissions and Fuel Consumption in Residential Areas. Proceedings of the 99th Air & Waste Management Association (A&WMA) Annual Conference & Exhibition. Paper Number: (06-A-296-AWMA).

95. Qiao, F., Yu, L., and Soltani, V. (2006). Characteristics of Truck Idling Emissions under Real-World Conditions. Proceedings of The 85th Annual Transportation Research Board Meeting, Paper Number: 06-0192. National Research Council, Washington, DC, January 22-26, 2006.
96. Qiao, F., Yu, L., and Xu, L. (2006). Neuro-Fuzzy Logic-Based Model for Assessment of Freight Transportation Implications on Communities. Proceedings of The 85th Annual Transportation Research Board Meeting, National Research Council, Washington, DC, January 22-26, 2006.
97. Qiao, F., H. Liu, and L. Yu. (2006). Incorporating Wavelet Decomposition Technique to Compress TransGuide ITS Data. Proceedings of The 85th Annual Transportation Research Board Meeting, National Research Council, Washington, DC, January 22-26, 2006.
98. Qiao F., and L. Yu. (2005), Collection and Evaluation of On-Road Vehicle Emission and Activity Data in Houston. Proceedings of The 84th Annual Transportation Research Board Meeting, National Research Council, Washington, DC, 2005.
99. Yu, L., F. Qiao, and Y. Zhang. (2005), Improved Framework and Systematic Calibration for Left-Turn Signal Change Intervals. Proceedings of The 84th Annual Transportation Research Board Meeting, National Research Council, Washington, DC, 2005.
100. Qiao, F., Yu, L., and Djimde, M. (2005), Processing On-Road Truck Emission Data for Comparison with the Computer Model MOBILE6.2. Proceedings of The 2005 International Conference on Computing in Civil Engineering, American Society of Civil Engineers (ASCE), Cancun, Mexico, 12-15 July, 2005.
101. Qiao F. and Yu, L. (2005), Collection and Evaluation of On-Road Vehicle Emission and Activity Data in Houston. Proceedings of The 84th Transportation Research Board Annual Meeting CD-ROM, National Research Council, Washington, DC, 2005.
102. Yu, L., F. Qiao, and Y. Zhang. (2005), Improved Framework and Systematic Calibration for Left-Turn Yellow Intervals. Proceedings of The 84th Transportation Research Record Annual Meeting CD-ROM, National Research Council, Washington, D.C., 2005.
103. Qiao, F. and Yu, L. (2004), An Alternative Approach To VMT Estimation: Combining Traffic Count and Link Attributes. Proceedings of Transportation Research Board 83rd Annual Meeting CD-ROM, Washington, DC, January 11-15, 2004.
104. Yu, L., F. Qiao, Y. Zhang, and Z. Tian. (2004), Improved Red-Clearance Intervals Based-on Observed Turning Times for Left-Turn Movement. Proceedings of The 83rd Transportation Research Record Annual Meeting CD-ROM, National Research Council, Washington, D.C., 2004, pp. 36-43.
105. Qiao, F., L. Yu and X. Wang. (2004), Double-Sized Optimization of Aggregation Level for ITS Data. Proceedings of The 83rd Transportation Research Record Annual Meeting CD-ROM, Transportation Research Record, 1879, National Research Council, 2004, pp.80-88.
106. Yu, L., X. Chen, Y. Geng, F. Qiao, X. Wang, M. Liu, and Z. Yuan. (2003), ITS Data Aggregation using Wavelet Transformation. Proceedings of Proceedings of 2003 Chinese National ITS Information Collection and Fusing Technology Conference. pp. 92-100. April 22-23, 2003, Hangzhou China. In Chinese.
107. Yu, L., X. Chen, Y. Geng, F. Qiao, L. Xu, and J. Wu. (2003), ITS Data Sampling Technology and Application. Proceedings of The 2003 Chinese National ITS Information Collection and Fusing Technology Conference. pp. 92-100. April 22-23, 2003, Hangzhou China. In Chinese.

108. Qiao, F., X. Wang and L. Yu. (2003), Optimizing Aggregation Level for ITS Data based on Wavelet Decomposition. Proceedings of The 82nd Transportation Research Record Annual Meeting: CD-ROM, National Research Council, 2003, pp. 10-20.
109. Qiao, F., G. Li, and L. Yu. (2003), Adjusting Vehicle Mileage Accumulation Rates Based On Small Sample Survey. Proceedings of The Transportation Research Board 82nd Annual Meeting: Compendium of Paper CD-ROM, Washington, DC, January 12-16, 2003.
110. Yu, L. F. Qiao, L. Munghor, X. Wang and A. Changpradith. (2003), Survey on Using ITS Technology to Improve Highway-Rail Grade Crossing Safety. Proceedings of The Transportation Research Board 82nd Annual Meeting: Compendium of Paper CD-ROM, Washington, DC, January 12-16, 2003.
111. Qiao, F. and Yu, L. (2002), Improvement to VMT Estimation for Air Quality Analysis. Proceedings of the Conference Better Air Quality in Asia and Pacific Rim Cities (BAQ 2002), Dec 16 -18, Dec 2002, Hong Kong SAR.
112. Qiao, F., L. Yu, G. Li, and X. Wang. (2002). Modeling Vehicle Age Distribution for Air Quality Analysis. Proceedings of The Transportation Research Board 81st Annual Meeting Compendium of Paper CD-ROM, Washington, D.C., January 2002.
113. Qiao, F., X. Wang and L. Yu. (2002), Determining Aggregation Level for ITS Data Via Wavelet Transformation. Proceedings of the 12th ITS America Annual Meeting (CD-ROM), Long Beach, California, April 29-May 2, 2002.
114. Qiao, F., L. Yu, and X. Wang. (2002), Time-scale Domain Analysis of ITS Data via Wavelet Transformation. The Traffic and Transportation Studies Proceedings of ICTTS 2002, v. 2, 2002, pp. 1232-1239, American Society of Civil Engineering (ASCE), 0-7844-0630-8, Reston, VA, USA.
115. Yu, L. F. Qiao, L. Munghor, X. Wang and A. Changpradith. (2002), Application of ITS Technology to Improve Highway-Rail Grade Crossing Safety. Traffic and Transportation Studies Proceedings of ICTTS 2002, v. 2, 2002, pp. 1298-1305, American Society of Civil Engineering (ASCE), 0-7844-0630-8, Reston, VA, USA.
116. Qiao F., P. Yi and H. Yang. (2001), Fuzzy Logic Based Intersection Delay Estimation, Proceedings of The 80th Transportation Research Board Annual Meeting Compendium of Paper CD-ROM, Washington D.C. USA, January 7-11, 2001.
117. Qiao F. and H. Yang. (1999), Intersection Delay Estimation and Signal Timing Using Fuzzy System, Transportation science and technology into the next millennium : proceedings of the Fourth Conference of the Hong Kong Society for Transportation Studies, Hong Kong, 4 December 1999, HKUST, Hong Kong, 1999, p. 331-340.
118. Qiao F. and H. Yang. (1999), Simulating Traffic Flow Dispersion by Neural Network System Identification, Proceedings of The 14th World Congress of International Federal of Automatic Control (IFAC'99), Beijing, China, July 5-9, 1999. Permagon, Elsevier Science.
119. Qiao F. and H. Yang (1999), Application of Robust Control to Freeway Ramp Metering, Proceedings of the IEEE Hong Kong Symposium on Robotics and Control, ISBN 962-85534-1-0, Hong Kong, July 2-3, 1999.
120. Qiao F. and H. Yang (1998), A Dynamic Data System Approach to Simulate Freeway Traffic Flow, The 8th World Conference on Transportation Research, Antwerp, Belgium, July 12-17, 1998.

121. Lo K., F. Qiao and H. Yang. (1998), Estimation of Traffic Conflicts at Urban Uncontrolled Intersection by Simulation Approach, Proceedings of The 3rd Conference of Hong Kong Society for Transportation Studies, Hong Kong, Dec. 10, 1998.
122. Qiao F. and H. Yang. (1998), Intelligent Simulation of Traffic Flow Dispersion, Proceedings of The 3rd Conference of Hong Kong Society for Transportation Studies, Hong Kong, Dec. 10, 1998.
123. Yang, H. and F. Qiao. (1998), Transit Passenger Flow Control Model on KCR, Proceedings of The Conference on Traffic and Transportation Studies, ICTTS. 1998, P.427-435, ASCE, 078440352X, Reston, VA, USA.
124. Qiao F. and H. Yang. (1997), A Neural Network Approach to the Classification of Highway Traffic Flow States, Proceedings of the Second Conference of Hong Kong Society for Transportation Studies, Hong Kong, Dec. 6, 1997.
125. Qiao F. and J. Ma. (1995), Research on Urban Key Intersection Traffic Control System, Transportation Systems: Theory and Applications of Advanced Technology. A Postprint Volume from the IFAC Symposium, edited by B. Liu and J.M. Blosseville, Pergamon. Part vol.2, 1995, pp.1001-5 vol.2. Oxford, UK.
126. Qiao F. and J. Li. (1995), Strategic Consideration on General Design of Chinese Freeway MC (Monitoring & Control) System, Transportation Systems: Theory and Applications of Advanced Technology. A Postprint Volume from the IFAC Symposium, edited by B. Liu and J.M. Blosseville, Pergamon. Part vol.2, 1995, pp.767-71 vol.2. Oxford, UK.
127. Qiao F. (1992), On the Approach of Urban Transit Flow Assignment, Proceeding of The National Conference of Transportation Planning for Young Scientists, Shanghai, China, June 1992.
128. Qiao F. and J. Li (1991), Building the Urban Traffic Data Base System, Proceeding of The National Conference of Computer Applications for Young Scientists in Civil Engineering, Nanjing, China, May 1991.
129. Qiao F. and W. Wang (1991), A Practical Software for Planning Transit Operation Lines, Proceeding of The National Conference of Computer Applications for Young Scientists in Civil Engineering, Nanjing, China, May 1991.

## **7. Funded Research Projects**

- 1、 PI at Texas Southern University, Rule-Based Automated Safety Monitoring System for Highway Work Zone Safety. IDEA NCHRP. National Academy of Science. 2018-2020
- 2、 PI and Research Supervisor: Synthesis of Work Zone Materials for Temporary Signs in High Wind Areas. TxDOT 0-6993. 2018-2019
- 3、 PI and Research Supervisor: Transportation and Economic Impact of Texas Shortline Railroads. Texas Department of Transportation (TxDOT) project 0-6887. Total award: \$297,252, while TSU receiving \$148,420. TSU Lead with University of Houston (UH) Participating. 2015-2016
- 4、 Co-PI: Texas Department of Transportation (TxDOT) project 0-6808. Award to TSU: \$120,000. 2014-2016. 2014-2016
- 5、 PI and Research Supervisor: Buffer Zones/infill Development -Environmental and Public Health Effects of Traffic Congestion and Increased Vehicle Emissions Triggered by Infill Development. Texas Department of Transportation (TxDOT) project 0-6825. Total award: \$131,250, while TSU' s portion: \$81,347. TSU Lead and University of Texas Houston Health Science Center Participating. 2015

- 6、 Co-PI: Tire 1 National University Transportation Center (UTC) TransLIVE partnered with University of Idaho, Virginia Tech, Old Dominion University, and University of Syracuse University. (Funding agency: US Department of Transportation. Total fund overseeing: \$ 950,000, 2012-2016.) Serving as the co-director and TSU representative to the Tire 1 National University Transportation Center (UTC): TransLIVE — Transportation for Livability by Integrating Vehicles and the Environment.
- 7、 Lead researcher and Co-PI of Sub-center II (Urban Transportation Environmental Networks, UTEN): National Science Foundation (NSF) CREST Center for Research on Complex Networks (CRCN). (\$4,887,004. 2011-2018. Co-supervising Sub-center II with a total fund of \$1,000,000).
- 8、 PI: Using RFID Technique for Smart Guide Signing at Unsignalized Intersections, (Texas Southern University Seed Grant, 2011-2012, \$ 8,500.00).
- 9、 PI: Assessment of Drivers' Workload for Freeway Sign Design, (Southwest Region Transportation Research Center Project, 2010-2011, \$30,000), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 10、 PI: Causes and Patterns of Bicycle / Vehicle Conflicts at Freeway Interchanges, (Southwest Region Transportation Research Center Project, 2009-2010, \$20,000), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 11、 PI: Bicycle & Pedestrian Friendly Crossings at Freeway Interchanges, (Texas Department of Transportation research project, Number: 0-6127, 2008-2010, \$260,000, TSU Lead: \$200,000, UTA: \$60,000), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 12、 PI: Driver Understanding of Congestion-Based Pricing Messages, (Texas Department of Transportation research project, Number: 0-6173, 2008-2010, Total: \$328,641, TSU Lead: \$243,768, TTI: \$84,873), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 13、 PI: Dynamic Traffic Assignment Based Trailblazing Guide Signing for Major Traffic Generator, (Southwest Region Transportation Research Center Project, SWUTC 476660-00046, 2008-2009, \$28,000), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 14、 PI: RFID Applications in Transportation Operation and Intelligent Transportation System (ITS), (Southwest Region Transportation Research Center Project, Number: SWUTC 476660-00044, 2007-2008, \$20,852), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 15、 PI: Symbols and warrants for major traffic generator guide signing, (Texas Department of Transportation, TxDOT 0-5800, 2006-2008, \$ 208,689), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 16、 PI: Computer Simulation-Based Algorithm For Optimizing Evacuation Plans in Major Trip Generator (Southwest Region Transportation Research Center Project, SWUTC, 2006-2007, \$20,852), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 17、 PI: Measuring Vehicle Turning Emissions And Fuel Consumption In Residential Areas (TSU Seed Grant, 2006, \$15,500), as the research supervisor and PI overseeing all research progresses and conducting major research work.

- 18、 PI: Using GPS and ITS Data to Calibrate the Micro Simulation Model VISSIM (SWUTC, 2005-2006, \$34,700), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 19、 PI: ITS Data Compression by Using Advanced Signal Processing Techniques (SWUTC, 2004-2005, \$55,200), as the research supervisor and PI overseeing all research progresses and conducting major research work.
- 20、 Key investigator: Analyzing Truck Idling Emission Characteristics under Altered Testing Conditions (SWUTC, 2004-2005, \$20,000).
- 21、 Key investigator: Collection and Evaluation of On-Road Vehicle Emission Data and Activity Data (HARC H-8B, 2003-2004, \$99,993).
- 22、 Key investigator: 2003 TxDOT Parking Lot Survey (TxDOT 52-4XXIA009, 2003-2004, \$99,970).
- 23、 Key investigator: Measurement and Evaluation of On-Road Vehicle Emissions at Signalized Intersections (SWUTC 473700-00049, 2003-2004, \$35,000).
- 24、 Key investigator: Probability Generation of Frequency and Severity of Nonrecurring Congestion due to Accidents to Improve Emissions Analysis (TxDOT 0-4073, 2002-2003, \$87,000).
- 25、 Key investigator: How do Changes in Goods Movements Impact Disadvantaged Population (FHWA DTFH61-02-X-000112, 2002-2003, \$100,000).
- 26、 Key investigator: Yellow and Red Intervals to Improve Signal Timing Plans for Left-Turn Movement (TxDOT 0-4273, 2001-2003, \$175,000).
- 27、 Key investigator: Using Real-Time Traffic Data for Transportation Planning (TxDOT 0-4054, 2000-2002, \$245,000).
- 28、 Key investigator: Forecasting Traffic Characteristics for Air Quality Analyses (TxDOT 0-4142, 2000-2002, \$204,753).
- 29、 Key investigator: Evaluation and Combined Use of TRANSYT-7F and CORSIM in Traffic Signal Optimization and Simulation (SWUTC 473700-00045, 2001-2002, \$30,000).
- 30、 Key investigator: Evaluation and Combined Use of TRANSYT-7F and CORSIM in Traffic Signal Optimization and Simulation (SWUTC 167920, 2002-2003, \$25,000).
- 31、 Key investigator: Using ITS Technology to Improve Highway-Rail Crossing Safety (FHWA DTFH61-00-R-00089, 2000-2001, \$62,500).