Yunlong Zhang, Ph.D.
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EDUCATION

B.S., Civil Engineering, Southeast University, Nanjing, China	1984
M.S., Highway and Traffic Engineering, Southeast University, Nanjing, China	1987
Ph.D., Transportation Engineering, Virginia Tech, Blacksburg, Virginia	1996

PROFESSIONAL EXPERIENCE

a. Academic Appointment

Professor, Texas A&M University	2016-Present
Associate Professor, Texas A&M University	2010–2016
Assistant Professor, Texas A&M University	2004–2010
Assistant/Associate Research Scientist, Texas Transportation Institute	2004–Present
Assistant Professor, Mississippi State University	2000–2004
Research Associate, Center for Transportation Research, Virginia Tech	1996
Lecturer, Department of Transportation Engineering, Southeast University	1987–1992

b. Industrial and Governmental

Senior Transportation Engineer, ITT Industries, Systems Division, Colorado Springs, Colorado	1996–2000

AWARDS AND HONORS

- Best Paper Award at ACM MobiHoc 2017
- Departmental Leadership Impact Award, 2016
- Holder of E.B. Snead '25 Career Development Professor II, 2014-2016
- Departmental Impact Award in Research, 2013
- Lockheed Award for Teaching Excellence, 2011
- Outstanding Faculty SLATE (Student-Led Award for Teaching Excellence) Award by Texas A&M University Systems, 2010.
- Outstanding Researcher Award in "*Seventh National Five-Year-Plan Key Research Projects*" from the Ministry of Communications and Transportation of China (1991)
- First-Grade Science and Technology Advancement Award of "*Seventh National Five-Year-Plan Key Research Projects*" from the Ministry of Communications and Transportation of China (Group Award) (1991)
- Awards of teaching and research excellence from Southeast University (1990, 1991)
- Faculty member, Chi Epsilon Civil Engineering Honor Society

PROFESSIONAL SOCIETY MEMBERSHIP

- American Society of Civil Engineers (ASCE)
- Transportation Research Board (TRB), National Academy of Sciences
- Institute of Transportation Engineers (ITE)

PUBLICATIONS (Note: * indicates a graduate student advised by Dr. Zhang)

a. Refereed Journals

1. Zeng X.*, Zhang Y., Jiao J.*, and Yin K., 2020, "Route-Based Transit Signal Priority Using Connected Vehicle Technology to Promote Bus Schedule Adherence," IEEE Transactions on Intelligent Transportation Systems PP(99):1-11, DOI: 10.1109/TITS.2020.2963839

2. Yao Y., Zhao X., Zhang Y., Chen C., and Rong J., 2010, "Modeling of individual vehicle safety and fuel consumption under comprehensive external conditions," " Transportation Research Part D: Transport and Environment, Vol. 79, DOI: 10.1016/j.trd.2020.102224

3. Bibeka A.*, Songchitruksa P., and Zhang Y., 2019, "Assessing environmental impacts of ad-hoc truck platooning on multilane freeways," Journal of Intelligent Transportation Systems, DOI: 10.1080/15472450.2019.1608441

4. Lio, K., Zhang Y., and Quadrifoglio, L., 2019, "Bid-Based Priority Signal Control in a Connected Environment: Concept," Transportation Research Record, Vol. 2673, Iss. 11, pp 737-747.

5. Cao X., Jiao J.*, Zhang Y., and Wang X., 2019, "Left-Turn Spillback Probability Estimation in a Connected Vehicle Environment." Transportation Research Record, Vol. 2673, Iss. 4, pp 753-761

6. Zheng Y., Ma Y., Cheng J., and Zhang Y., 2019, "Crash Involvement and Risky Riding Behaviors among Delivery Riders in China: The Role of Working Conditions," Transportation Research Record, Vol. 2673, Iss. 4, pp 1011-1022.

7. Wang X.*, Zhang Y., and Jiao J., 2019, "A state dependent mandatory lane-changing model for urban arterials with hidden markov model method," International Journal of Transportation Science and Technology, Vol. 8, Iss/ 2, p.p. 219-230, https://doi.org/10.1016/j.ijtst.2018.11.005

8. Yao Y., Zhang X., Wu Y., Zhang Y., and Rong J., 2019, "Clustering driver behavior using dynamic time warping and hidden Markov model," Journal of Intelligent Transportation Systems, DOI: 10.1080/15472450.2019.1646132

9. Chen C., Zhao X., Liu H., Ren G., Zhang Y., and Liu X., 2019, "Assessing the Influence of Adverse Weather on Traffic Flow Characteristics Using a Driving Simulator and VISSIM," Sustainability 11(3):830, DOI:10.3390/su11030830

10. Yao Y., Zhao X., Zhang Y., Ma J., Rong J., Bi C., and Wang Y., 2019, "Development of Urban Road Order Index Based on Driving Behavior and Speed Variation," Transportation Research Record Journal of the Transportation Research Board, DOI: 10.1177/0361198119853576

11. Yao Y., Zho X., Du H., Zhang Y., Zhang G., and Rong J., 2019, "Classification of Fatigued Driving and Drunk Driving Based on Decision Tree Methods: A Simulator Study," International Journal of Environmental Research and Public Health, 16(11), 1935, https://doi.org/10.3390/ijerph16111935

12. Chen C., Zhao X., Zhang Y., Rong J., and Liu X., 2019, "A graphical modeling method for individual driving behavior and its application in driving safety analysis using GPS data," Transportation Research Part D, Volume 63, p.p. 118-134, DOI: 10.1016/j.trf.2019.03.017

13. Tiaprasert, K.*, Zhang Y., and Ye X., 2019, "Platoon Recognition Using Connected Vehicle Technology," Journal of Intelligent Transportation System, 23:1, pp.12-27.

14. Wu Y., Zhao X., Rong J., and Zhang Y., 2018, "The effectiveness of eco-driving training for male professional and non-professional drivers," Transportation Research Part D., Vol. 59, pp. 121-133.

15. Yao, Y., Zhao X., Do H., Zhang Y., and Rong J., 2018, "Classification of Distracted Driving Based on Visual Features and Behavior Data using a Random Forest Method," Transportation Research Record. Published online September 20, 2018. https://doi.org/10.1177/0361198118797508

16. Kong, X.*, Eisele W., and Zhang Y., 2018, "Evaluating the Impact of Real-Time Mobility and Travel Time Reliability Information on Truck Drivers' Routing Decisions," Transportation Research Record. Published online September 21, 2018. https://doi.org/10.1177/0361198118797508

17. Chao, W., Ye, Z.*, Fricker, J., Zhang Y., and Ukkusuri S., 2018, "Bus Capacity Estimation using Stochastic Queuing Models for Isolated Bus Stops in China," Transportation Research Record. First published June 11, 2018https://doi.org/10.1177/0361198118777358

18. Chen, C., Zhao X., Yao Y., Zhang Y., and Liu X., 2018, "Driver's Eco-Driving Behavior Evaluation Modeling Based on Driving Events," Journal of advanced transportation 2018:1-12, DOI: 10.1155/2018/9530470

19. Wu Y., Zhao X., Rong J., and Zhang Y., 2018, "The effectiveness of eco-driving training for male professional and non-professional drivers," Transportation Research Part D., Vol. 59, pp. 121-133.

20. Wo Y., Zhao X., Rong J., and Zhang Y., 2017, "How eco-driving training course influences driver behavior and comprehensibility: a driving simulator study," Cognition, Technology & Work, Issue 4, pp. 731-742.

21. Wu Y., Zhang X., Chen C., Rong J., and Zhang Y., 2017, "Development of an Internet+ Based Eco-driving Support Platform and Its Application: A Case Study in Beijing Taxicabs," Transportation Research Record, Vol. 2645, pp. 57-66.

22. Tiaprasert K*, Zhang Y., Aswakul C., Jiao J., and Ye X., 2017, "Closed-form multiclass cell transmission model enhanced with overtaking, lane-changing, and first-in first-out properties," Transportation research Part C, Vol. 85, pp. 86-110.

23. Zhou H., Hawkins H., and Zhang Y., 2017, "Arterial signal coordination with uneven double cycling," Transportation Research Part A, Vol. 103, pp. 409–429.

24. Zou Y.*, Hang Y., Zhang Y., Tang J., and Zhang W., 2017, "Mixture modeling of freeway speed and headway data using multivariate skew-t distributions," Transportatmetrica A: Transport Science, Vol. 13, Issue 7, pp.657-678.

25. Wang L., Zhou H., Zhang Y., and Chen J., 2017, "Reliability-Based Specification on Critical Length of Highway Sections with Near-Maximum Grade," KSCE Journal of Civil Engineering, DOI 10.1007/s12205-017-0832-2

26. Shi Z., Zhang N., and Zhang Y., 2016 "Hazard-Based Model for Estimation of Congestion Duration in Urban Rail Transit Considering Loss Minimization," Transportation Research Record, No. 2595, pp. 78-87.

27. Zha L.*, Zhang Y., Songchitruksa P., and Middleton D., 2016, "An Integrated Dilemma Zone Protection System Using Connected Vehicle Technology," IEEE Transactions on Intelligent Transportation System, Vol.17, Issue: 6, pp 1714-1723.

28. Zou Y.* and Zhang Y., 2016, "A copula-based approach to accommodate the dependence among microscopic traffic variables," Transportation Research Part C, Vol. 70, pp.53–68.

29. Zhang Y.* and Zhang Y., 2016,"A Comparative Study of Three Multivariate Short-Term Freeway Traffic Flow Forecasting Methods with Missing Data," Journal of Intelligent Transportation Systems, Vol. 20, Issue 3, pp. 205-218.

30. Lv, J.*, Lord D., Zhang Y., and Chen Z., 2015 "Peltzman Effects in Adopting Mandatory Seat Belt Laws in the US: Evidence from Non-occupant Fatalities," Transport Policy 44, pp.58-64.

31. Zeng X.*, Sun X., Zhang Y., and Quadrifoglio L, 2015, "Person-based Adaptive Priority Signal Control with Connected-vehicle Information," Transportation Research Record, No. 2384, pp. 74-84.

32. Tiaprasert, K*, Zhang, Y., Wang, X., and Zeng, X., 2015 "Queue Length Estimation Using Connected Vehicle Technology for Adaptive Signal Control," IEEE Transactions on Intelligent Transportation Systems, Vol. 16(4), pp. 2129-2140.

33. Zhao, X., Wu, Y., Rong, J., and Zhang, Y., 2015, "Development of a driving simulator based eco-driving support system," Transportation Research Part C. Volume 58, Part D, pp. 631-641.

34. Zhang N., Zhang Y., and Zhang X., 2015, "Pedestrian Choices of Vertical Walking Facilities inside Urban Rail Transit Stations," *KSCE Journal of Civil Engineering*, Vol. 19, No. 3.

35. Du H., Zhao X., Zhang X., Zhang Y., and Rong J., 2015, "Effects of Fatigue on Driving Performance under Different Roadway Geometries: A Simulator Study," *Traffic Injury Prevention,* Vol. 16(5), pp. 468-73.

36. Chen Z.*, Zhang Y., Lv J.*, and Zou Y.*, 2014, "Model for Optimization of Ecodriving at Signalized Intersection," *Transportation Research Record*, No. 2427, pp. 54-62.

37. Zeng X.*, Zhang Y., Balke K., and Yin K., 2014, "A Real-Time Transit Signal Priority Control Model Considering Stochastic Bus Arrival Time," *IEEE Transactions on Intelligent Transportation Systems*, VOL. 15, NO. 4, pp. 1657-1666.

38. Zhang Y.*, Zhang Y., and Haghani A., 2014, "A hybrid short-term traffic flow forecasting method based on spectral analysis and statistical volatility model," *Transportation Research Part C: Emerging Technologies*, Vol. 43, Part 1, June 2014, pp. 65–78

39. Zou, Y.*, Zhang, Y., and Zhu, X., 2014, "Constructing a bivariate distribution for freeway speed and headway data," *Transportmetrica A: Transport Science*, 10(3), pp. 255-272.

40. Zou, Y.*, Zhang, Y., and Lord, D., 2014, "Analyzing different functional forms of the varying weight parameter for finite mixture of negative binomial regression models," *Analytic Methods in Accident Research*, 1, pp. 39-52.

41. Zou, Y.*, Zhu, X., Zhang, Y., and Zeng, X.*, 2014, "A space-time diurnal method for short-term freeway travel time prediction," *Transportation Research Part C*, 43(1), pp. 33-49.

42. Zou, Y., Lord, D., Zhang, Y., and Peng, Y., 2014, "Application of the Bayesian model averaging in predicting motor vehicle crashes," *Journal of transportation and statistics*, 10(1), pp. 49-60.

43. Zou Y.*, Lord D., Zhang Y., and Peng Y., 2013, "Comparison of Sichel and Negative Binomial Models in Estimating Empirical Bayes Estimates," *Transportation Research Record*, No. 2392, pp. 11-21.

44. Zou, Y.*, Zhang, Y., and Lord, D., 2013, "Application of finite mixture of negative binomial regression models with varying weight parameters for vehicle crash data analysis," *Accident Analysis & Prevention*, Vol. 50, pp.1042-1051.

45. Ge H.*, Zhang, Y., Miles, J., and Carlson, P., 2013, "Assessment of Background Complexity of Overhead Guide Signs from Nighttime Digital Images of Roadway Scenes by Image Processing," *Transportation Research Record*, *Transportation Research Record*, No. 2384, pp. 74-84.

46. Zeng X.*, Zhang, Y., and Praprut, S., 2013, "Probability Model for Understanding Effect of Detector Delay on Right-Turn-on-Red Traffic," *Transportation Research Record*, No. 2355, pp. 73-82.

47. Yin K., Wang, B., and Zhang, Y., 2013, "Vehicle-to-vehicle connectivity on two parallel roadways with a general headway distribution," *Transportation Research Part C*, 29, pp. 84-96.

48. Zhang Y. and Ge, H.*, 2013, "Freeway Travel Time Prediction Using Takagi-Sugeno-Kang Fuzzy Neural Network," *Computer-Aided Civil and Infrastructure Engineering*, Vol. 28, Issue 8, pp. 594-603.

49. Kota, Sri, Ying, Qi. And Zhang, Y., 2013, "Simulating near-road reactive dispersion of gaseous air pollutants using a three-dimensional Eulerian model," *Science of the Total Environment*, Vol. 454, pp. 348-357.

50. Ye Z.*, Zhang Y., Lord D., 2013, "Goodness-of-fit testing for accident models with low means," *Accident Analysis & Prevention*, Vol. 61, pp. 78-86.

51. Zhang Y., Lv J.*, and Wang W., 2013, "Evaluation of vehicle acceleration models for emission estimation at an intersection," *Transportation Research Part D: Transport and Environment*, Vol. 18, pp. 46-50.

52. Zeng X.* and Zhang Y., 2013, "Development of Recurrent Neural Network Considering Temporal-Spatial Input Dynamics for Freeway Travel Time Modeling," *Computer-Aided Civil and Infrastructure Engineering*, Vol. 28, Issue 5, pp. 359-371.

53. Lv j.*, Zhang Y., and Zietsman J. 2012, "Investigating Emission Reduction Benefit from Intersection Signal Optimization," *Journal of Intelligent Transportation Systems*, Vol. 17, Issue 3, pp. 200-209.

54. Lv, J.*, Zhang, Y., and Zietsman, J., 2012, "A Convex Approach to the Traffic Assignment Problem under Air Quality Constraints for Planning Purposes," *Advances in Transportation Studies – An International Journal*, Issue 29, pp. 85-96.

55. Fitzpatrick K., Brewer M., Eisele W., Zhang Y., Gluck J., Levinson H., and Iragavarapu V., 2012, "Development of Left-Turn Lane Warrants for Unsignalized Intersections," *Transportation Research Record*, No. 2301, pp. 55-65.

56. Wang X., Yin K., and Zhang Y., 2012, "An Exact Markov Process for Multihop Connectivity via Intervehicle Communication on Parallel Roads," *IEEE Transactions on Wireless Communications* 11(3), pp. 865-868.

57. Zhang Y., Xie Y.*, and Li L.*, 2012, "Crash Frequency Analysis of Different Types of Urban Roadway Segments Using Generalized Additive Model," *Journal of Safety Research*, Vol. 43, Issue 2, pp. 107-114.

58. Zhang Y. and Ge H.*, 2012, "Assessing Presence Conditions of Pavement Markings Using Image Processing ," *Transportation Research Record*, No. 2272,, pp. 94-102

59. Devarasetty P, Zhang Y., and Fitzpatrick K., 2012, Differentiating between Left-Turn Gap versus Lag Acceptance at Unsignalized Intersections as a Function of the Site Characteristics, Journal of Transportation Engineering, Vol. 138, Issue 5, pp. 580-588.

60. Guo Y., Yu Q., Zhang Y., and Rong J., 2012, "The Effect of Bicycles on the Saturation Flow Rate of Turning Vehicles at Signalized Intersections," Journal of Transportation Engineering, Vol. 138, Issue 1, pp. 21-30.

61. Lv J.* and Zhang Y., 2012, "Effect of signal coordination on traffic emission, publication in Transportation Research Part D," Vol. 17, Issue 2, pp.149-153.

62. Zou Y.* and Zhang Y., 2011, "Use of Skew-Normal and Skew-T Distributions for Mixture Modeling of Freeway Speed Data," *Transportation Research Record*, No. 2260, pp. 67-75.

63. Kai Y., Zhang Y., and Wang X., 2011, "Modeling Delay for Signalized Intersections with Short Left-Turn Bay during Heavy Traffic*," Transportation Research Record*, No. 2257, pp. 103-110.

64. Zhang Y., Pike A., Ge H.*, and Carlson P., 2011, "Comparison of different designs of field test decks for pavement marking materials," *Transportation Research Record*, No. 2258, pp. 95-102.

65. Eisele W., Zhang Y., Park E., Zhang Y.*, and Stensrud R., 2011, "Development and Application of Arterial Corridor Travel Time Index Estimation Models for Transportation Planning in Small to Medium-sized Communities," *Transportation Research Record*, No. 2244, pp. 81-90.

66. Wan F.* and Zhang Y., 2011, "Analysis of Platoon Impacts on Left-Turn Delay at Unsignalized Intersections," *Transportation Research Record*, No. 2223, pp. 80-87.

67. Zhang N, Zhang Y., and Lu H., 2011, "Short-term Freeway Traffic Flow Prediction Combining Seasonal Autoregressive Integrated Moving Average and Support Vector Machines," *Transportation Research Record*, No. 2215, pp. 85-92.

68. Cheng J., Du X., Shi J., Zhang Y., and Li F., 2011, "Optimization of superelevation runoff model for cycling tracks," *Journal of Central South University Press*, Vol, 18, pp. 587-592.

69. Li X.*, Lord D., and Zhang Y., 2011, "Development of Accident Modification Factors for Rural Frontage Road Segments in Texas Using Generalized Additive Models," *Journal of Transportation Engineering*, Vol.137, No.1, pp. 74-83.

70. Azimi M. and Zhang Y., 2010, "Categorizing Freeway Flow Conditions Using Clustering Methods," *Transportation research Record*, No. 2173, pp.105-114.

71. Yin K., Zhang Y., and Wang B., 2010, "Analytical Models for Protected plus Permitted Left-Turn Capacity at a Signalized Intersection with Heavy Traffic," *Transportation research Record*, No. 2192, pp. 177-184.

72. Ye Z*. and Zhang Y., 2010, "Speed Estimation from Single Loop Data Using an Unscented particle Filter," *Computer-Aided Civil and Infrastructure Engineering*, Vol. 25, Issue 7, pp. 495-503.

73. Zhang, Y., J. Lv*, and Y. Qi, 2010, "Traffic assignment considering air quality," *Transportation Research Part D*, Vol. 15, Issue 8, p.p. 497-502.

74. Park B., Zhang Y., and Lord D., 2010, "Bayesian mixture modeling approach to account for heterogeneity in speed data," *Transportation Research Part B*, No. 44, pp. 662–673

75. Kota S., Qi Y. and Zhang Y., 2010, "TAMNROM-3D: A Three-Dimensional Eulerian Model to Simulate Air Quality near Highways," *Transportation research Record*, No. 2158, pp. 61-68.

76. Tan L, Jiang J., and Zhang Y., 2010, Bit-Error Aware Lossless Compression of Waveform Data, IEEE Signal Processing Letter, VOL. 17, NO. 6, pp. 547-550

77. Ye F., and Zhang Y., 2009, "Vehicle-Type-Specific Headway Analysis Using Freeway Traffic Data," Transportation Research Record, No. 2124, pp. 22-230.

78. Xie Y.*, Zhang Y., and Liang F., 2009, "Crash Injury Severity Analysis Using Bayesian Ordered Probit Model," ASCE's *Journal of Transportation Engineering*, Vol.135, No. 1, pp. 18-25.

79. Zhang Y. and Ye Z.*, 2008, "Short-Term Traffic Flow Forecasting Using Fuzzy Logic System Methods," *Journal of Intelligent Transportation Systems*, Vol. 12, Issue 3, pp. 102-112.

80. Zhang Y. and Tong J.*, 2008, "Modeling Left-Turn Blockage and Capacity at Signalized Intersection with Short Left-Turn Bay," *Transportation Research Record*, No. 2071, pp. 71-76.

81. Li X.*, Lord D., Zhang Y., and Xie Y.*, 2008, "Predicting Motor Vehicle Crashes Using Support Vector Machine Models," *Accident Analysis & Prevention,* Vol. 40, Issue 4, pp.1611-1618.

82. Zhang Y. and Xie Y.*, 2008, "Travel Mode Choice Modeling Using Support Vector Machines," *Transportation Research Record*, No. 2076, pp. 141-150.

83. Xie Y.* and Zhang Y., 2008, "Crash Frequency Analysis Using Generalized Additive Models," *Transportation Research Record*, No. 2061, pp. 39-45.

84. Zhang Y. and Xie Y.*, 2007, "Forecasting of Short-Term Freeway Volume with *v*-Support Vector Machines," *Transportation Research Record*, No. 2024, pp. 92-99.

85. Zhang Y., Ye Z.*, and Lord D., 2007, "Estimating Dispersion Parameter of Negative Binomial Distribution for Analyzing Crash Data Using Bootstrapped Maximum Likelihood Method," *Transportation Research Record*, No. 2019, pp. 15-21.

86. Li L.* and Zhang Y., 2007, "GIS-Based Bayesian Approach Based on Geographic Information System to Identify Hazardous Roadway Segments for Traffic Crashes," *Transportation Research Record*, No. 2019, pp. 63-72.

87. Xie Y.*, Zhang Y., and Ye Z.*, 2007, "Short-Term Traffic Volume Forecasting Using Kalman Filter with Discrete Wavelet Decomposition," *Journal of Computer-Aided Civil and Infrastructure Engineering*, Vol. 22, Issue 5, pp. 326-334.

88. Zhang Y., Agrawal R., Schrock S., and Tong J.*, 2007, "Finite Element Modeling of Stresses Inside a Raised Pavement Marker During Tire-Marker Impacts Under Various External Factors," *Transportation Research Record*, No. 2015, pp. 103-109.
89. Xie Y.*, Lord D., and Zhang Y., 2007, "Predicting Motor Vehicle Collisions Using Bayesian Neural Network Models: An Empirical Analysis," *Accident Analysis & Prevention,* Vol. 39, Issue 5, pp. 922-933.
90. Zhang Y. and Wu D., 2006, "Methodologies to Predict Service Lives of Pavement Marking Materials," *Journal of the Transportation Research Forum,* Vol. 45, No. 3, pp. 5-18.
91. Xie, Y. and Zhang, Y., 2006 "A Wavelet Network Model for Short-Term Traffic Volume Forecasting," *Journal of Intelligent Transportation Systems,* Vol. 10, No. 3, pp. 141-150.
92. Zhang Y. and Xie Y.*, 2006, "Application of Genetic Neural Networks in Real-Time Intersection Accident Detection Using Acoustic Signals," *Transportation Research Record*, No. 1968, pp. 75-82.
93. Ye Z.*, Zhang Y., and Middleton. D., 2006, "An Unscented Kalman Filter Method for Speed Estimation Using Single Loop Detector Data," *Transportation Research Record*, No. 1968, pp. 117-125.
94. Zhang Y. and Xie Y.*, 2005, "Small Community Airport Choice Behavior Analysis: A Case Study of GTR," *Journal of Air Transport Management*, Vol. 11, Issue 6, pp. 442-447.
95. Zhang Y., and Owen, L., 2004, "Systematic Validation of a Microscopic Traffic Simulation Program," *Transportation Research Record*, No. 1876, pp. 53-63.
96. Tan A., Bowden, R., and Zhang, Y., 2004. "A Virtual Simulation of Statewide Intermodal Freight Traffic," *Transportation Research Record*, No. 1873, pp. 112-120.
97. Bruce L., Zhang, Y., Balraj, N. and Yu, Q, 2003, "Automated Accident Detection in Intersections via Digital Audio Signal Processing," *Transportation Research Record*, No. 1840, pp. 186-192.
98. Zhang L., McHale, G., and Zhang, Y, 2003, "Modeling and Validating CORSIM Freeway Origin Destination Volumes," *Transportation Research Record*, No. 1856, pp. 135-142.
99. Das S., and Zhang, Y., 2000, "Color Night Vision for Navigation and Surveillance," *Transportation Research Records*, No. 1708, pp. 40-46.
100. Zhang Y., Owen, L., and Clark, J., 1998, "Multi-Regime Approach for Microscopic Traffic Simulation," *Transportation Research Record*, No. 1644, pp. 103-115.

b. Conference Proceedings (Refereed)
1. NEEDS Update
2. Zhu J., Chen F., Zhang Y., Bo W., Wang X., Zhang P., Wang Z., He F., and Zhong M., 2020, "Influencing factors of Drivers' hazard perception under plateau environment: experiment and modeling," Transportation Research Board Annual Meeting, Washing D.C.
3. Zhao X., Chen Y., Li J., Li H., Zhang Y., and Fu Q., 2010, "Safety evaluation of fog warning system in connected vehicle environment based on sample entropy," Transportation Research Board Annual Meeting, Washing D.C.
4. Kong X.*, Das S., Jha K., and Zhang Y., 2020, "Understanding speeding behavior from naturalistic driving data: applying classification-based association mining," Transportation Research Board Annual Meeting, Washing D.C.
5. Lio K., Lord Dominique, and Zhang Y., 2020, "Average annual daily traffic estimationby mobile device footprint cardinality," Transportation Research Board Annual Meeting, Washing D.C.
6. Li N*., Zhang M., Dong L., Cheng J., and Zhang Y., 2020, "Research on 3D earthwork calculation algorithm and development," Transportation Research Board Annual Meeting, Washing D.C.

7. Hou M., Cheng J., and Zhang Y., 2020, "Distracted behavior of pedestrian while crossing streets: a case study in China," Transportation Research Board Annual Meeting, Washing D.C.

8. Lio, K., Zhang Y., and Quadrifoglio, L.+, 2019, "Bid-Based Priority Signal Control in a Connected Environment: Concept," Transportation Research Board Annual Meeting, Washing D.C.

9. Cao X., Jiao J.*, Zhang Y., and Wang X.+ (Bruce), 2019, "Left-Turn Spillback Probability Estimation in a Connected Vehicle Environment." Transportation Research Board Annual Meeting, Washing D.C.

10. Zheng Y., Ma Y., Cheng J., and Zhang Y., 2019, "Crash Involvement and Risky Riding Behaviors among Delivery Riders in China: The Role of Working Conditions," Transportation Research Board Annual Meeting, Washing D.C.

11. Yao Y., Zhao X., Zhang Y., Ma J., Rong J., Bi C., and Wang Y., 2019, "Development of Urban Road Order Index Based on Driving Behavior and Speed Variation," Transportation Research Board Annual Meeting, Washing D.C.

12. Guo X.*, Xiao X., Zhang Y., Ma C., and He S., 2019, "On Development of State-Based Fundamental Diagram for Signalized Intersection using Connected Vehicle Trajectory," Transportation Research Board Annual Meeting, Washing D.C.

13. Ma Y., Zheng Y., Cheng J., Zhang Y., and Han W., 2019, "An Innovative Hybrid Model for Analysis of Highway Sight Distance Using LiDAR Data," Transportation Research Board Annual Meeting, Washing D.C.

14. Zhao X., Ren G., Chen C., and Zhang Y., 2018, "Effect of Weather Conditions on Car-Following-Related Driving Behavior," Transportation Research Board Annual Meeting, Washing D.C.

15. Yao Y., Zhao X., Wu Y., Zhang Y., and Rong J., 2018, "Clustering Driver Behavior Using Dynamic Time Warping and Hidden Markov Model," Paper presented at the 97th Transportation Research Board annual meeting, Washington D.C.

16. Cao X., Jiao J.*, Zhang Y., and Wang X., "Left-Turn Spillback Probability Estimation in a Connected Vehicle Environment." Paper presented at the 97th Transportation Research Board annual meeting, Washington D.C.

17. Wang C., Ye Z.*, Fricker J., and Zhang Y., "Bus Capacity Estimation Models for Isolated Bus Stops in China," Paper presented at the 97th Transportation Research Board annual meeting, Washington D.C.

18. Chen C., Zhang X., Ren G., Zhang Y., and Rong J., "A Method of Combination of Driving Simulator and VISSIM to Research the Influence of Adverse Weather on Traffic Flow Characteristics," Paper presented at the 97th Transportation Research Board annual meeting, Washington D.C.

19. Ma Y., Cheng J., Zhang Y., and Guo L., "A Novel Real-time Visualization Algorithm for Computing Three-dimensional Sight Distance ," Paper presented at the 97th Transportation Research Board annual meeting, Washington D.C.

20. Hsieh P., Liu X., Jiao J., Hou I., Zhang Y., and Kumar P., "Throughput-Optimal Scheduling for Multi-Hop Networked Transportation Systems with Switch-Over Delay," MobiHoc 2017, Madras, India.

21. Wang C., Ye Z., Zhang Y., Wang W., and Jin M., 2017, "Modeling Bus Capacity for Isolated Bus Stops," Paper presented at the 95rd Transportation Research Board annual meeting, Washington D.C.

22. Wu Y., Zhang X., Chen C., Rong J., and Zhang Y., 2016, "Development of an Internet+ Based Eco-driving Support Platform and Its Application: A Case Study in Beijing Taxicabs," Paper presented at the 95rd Transportation Research Board annual meeting, Washington D.C.

23. Khodakarami, M., Zhang, Y., Wang, B. X., Shirazi, M., and Dastgiri, M. S. 2016. "Using a Prospect Theory Approach to Studying the Car-Following Model," 4th International Conference on Human Factors in Transportation. Advances in Human Aspects of Transportation. pp. 287-300.

24. Lu Q., Guo L., Zhang Y., and Yu B., 2015, "Comprehensive study of Pendulum Impact Test for Raised Pavement Markers," Paper presented at the 94th Transportation Research Board annual meeting, Washington D.C.

25. Zha L.*, Zhang Y., Songchitruksa P., and Middleton D., 2015, "An Integrated Dilemma Zone Protection System Using Connected Vehicle Technology," Paper presented at the 94th Transportation Research Board annual meeting, Washington D.C.

26. Zeng X.*, Zhang Y., Balke K., and Songchitruksa P., 2015, "A Model for Transit Signal Priority Considering Stochastic Bus Arrival Time," Paper presented at the 94th Transportation Research Board annual meeting, Washington D.C.

27. Lv J.*, Zhang Y., and Wang W., 2014, "Generating Vehicle Trajectories from Intersection Delay for Estimating Emissions," Paper presented at the 19th International Conference of Hong Kong Society for Transportation Studies, Hong Kong.

28. Zeng X.*, Zhang Y., and Balke K. 2014, "A Model for Transit Signal Priority Considering Stochastic Bus Arrival Time," Paper presented at the 93rd Transportation Research Board annual meeting, Washington D.C.

29. Zhou Y., Zeng X.*, and Zhang Y., 2014, "Modeling Time to Clear Right-Turn-on-Red Traffic on Minor Street," Paper presented at the 93rd Transportation Research Board annual meeting, Washington D.C.

30. Zhang T.* and Zhang Y., 2014, "System Partition Method to Improve Arterial Signal Coordination," Paper presented at the 93rd Transportation Research Board annual meeting, Washington D.C.

31. Gu C.*, Zhang Y., and Zhang L., 2013, "Evaluation and Development of Vehicle-Type-Specific Acceleration Models," Paper presented at the 92nd Transportation Research Board annual meeting, Washington D.C.

32. Li S.* and Zhang Y., 2013, "Application of Generalized Liner Model for Modeling Pedestrian Delay at HAWK." Paper presented at the 92nd Transportation Research Board annual meeting, Washington D.C.

33. Zou Y.*, Zhang Y., Lord D., and Peng Y., 2013, "Analyzing Different Functional Forms of the Varying Weight Parameter for Finite Mixture of Negative Binomial Regression Models," Paper presented at the 92nd Transportation Research Board annual meeting, Washington D.C.

34. Zhang N., Zhang Y., and Wang X., 2013, "Forecasting of Short-Term Urban Rail Transit Passenger Flow with Support Vector Machine Hybrid Online Model." Paper presented at the 92nd Transportation Research Board annual meeting, Washington D.C.

35. Zhang Y. * and Zhang Y., 2012, "Multivariate Short-Term Traffic Flow Forecasting Models." Presentation at the TRB Symposium on Innovations in Traffic Flow Theory, and Highway Capacity and Quality of Service, Ft Lauderdale, FL.

36. Yin K., Zeng X.*, Zhang Y., and Wang X., 2012, "Modeling Arterial Link Travel Time with Considerations of Left-Turn Spillback and Blockage." Paper presented at the 91st Transportation Research Board annual meeting, Washington D.C.

37. Lu w., Zhang Y., and Xie Y. *, 2012, "Multi-Agent Adaptive Traffic Signal Control Using Swarm Intelligence and Neuro-Fuzzy Reinforcement Learning." Paper presented at the 91st Transportation Research Board annual meeting, Washington D.C.

38. Zhang N., Zhang Y., and Zhang X., 2012, "Modeling of Walking Access Area for Rail Transit Station Based on Trip Characteristics." Paper presented at the 91st Transportation Research Board annual meeting, Washington D.C.

39. Zou Y. *, Lord D., and Zhang Y., 2012, "Application of Bayesian Model Averaging in Predicting Motor Vehicle Crashes." Paper presented at the 91st Transportation Research Board annual meeting, Washington D.C.

40. Lu W., Zhang Y., and Xie Y. *, 2011, "A Multi-Agent Adaptive Traffic Signal Control System Using Swarm Intelligence and Neuro-Fuzzy Reinforcement Learning," Proceedings of the IEEE Forum on Integrated and Sustainable Transportation Systems, pp. 233-238.

41. Madiri S.* and Y. Zhang, 2011, "Practical Restriping Methodology to Maintain Minimum Retroreflectivity of Longitudinal Pavement Markings," Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.

42. Zeng X.* and Y. Zhang., 2011, "Developing Freeway Travel Time Learning Model Under a Logical Traffic Context." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.

43. Zhang N., Y. Zhang, and X. Zhang, 2011, "Pedestrian Choices of Vertical Walking Facilities Inside Urban Rail Transit Stations." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.

44. Li S.* and Y. Zhang, 2011, "Pedestrian Delay and HAWK Pedestrian Treatment." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.

45. Zou Y.* and Y. Zhang, 2011, "Mixture Modeling of Freeway Speed Data Using Skew-Normal and Skew-T Distributions." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.

46. Zhang Y., J. Lv*, and Y. Qi, 2010, Traffic Assignment Considering Air Quality. Paper presented at the 89th Transportation Research Board annual meeting, Washington D.C.

47. Zhang Y. and H. Ge*, 2010, Intelligent Intersection Flow Prediction Based on Fuzzy Neural Network. Paper presented at the 89th Transportation Research Board annual meeting, Washington D.C.

48. Cho K.* and Y. Zhang, 2010, Further Investigation of the Capacity of Left-Turn and Through Movement Considering Left-Turn Blockage and Spillback at Signalized Intersection with Short Left-Turn Bay. Paper presented at the 89th Transportation Research Board annual meeting, Washington D.C.

49. Zhang Y., S. Madiri*, L. Zhang and P. Kohli, 2010, Statistical Technique to Handle Data Irregularities in Field Evaluations of Pavement Markings. Paper presented at the 89th Transportation Research Board annual meeting, Washington D.C.

50. Eisele W., Y. Zhang, E. Park and R. Stensrud*, 2010, Incorporating Access Management into an Arterial Corridor Travel Time Index Estimation Model. Paper presented at the 89th Transportation Research Board annual meeting, Washington D.C.

51. Zhang Y., Xie Y.*, and Li. L.*, 2009, "Crash Frequency Analysis of Different Types of Urban Roadway Segments Using Generalized Additive Model," Preprint of the 88th Transportation Research Board annual meeting, Washington D.C.

52. Tong J.*, Zhang Y., Hawkins J., and Carlson P., 2009, "Finite Element Analysis of Raised Pavement Markers on Flexible Pavement and Laboratory Tests," Preprint of the 88th Transportation Research Board annual meeting, Washington D.C.

53. Zhang Y., and Madiri S.*, 2009, "Study of the Field Performance of Retroreflective Raised Pavement Markers," Preprint of the 88th Transportation Research Board annual meeting, Washington D.C.
54. Guo Y., Yu Q., Zhang Y., Zhao X., and Rong J., 2009, "The Effect of Bicycles on the Saturation Flow Rate of Turning Vehicles at Intersections," Preprint of the 88th Transportation Research Board annual meeting, Washington D.C.
55. Mahlawat M., and Zhang Y., 2008, "Driver Risk-Taking Behavior as a Function of Congestion Level: Analysis Using Adopted Headways in Traffic Stream," Preprint of the 87th Transportation Research Board annual meeting, Washington D.C.
56. Zhang Y., Ye. Z.*, and Xie Y.*, 2008, "Estimation of Large Truck Volume Using Single Loop Detector Data," Preprint of the 87th Transportation Research Board annual meeting, Washington D.C.
57. Li X.*, Lord D., Zhang Y., and Xie Y.*, 2008, "Predicting Motor Vehicle Crashes Using Support Vector Machine Models," Preprint of the 87th Transportation Research Board annual meeting, Washington D.C.
58. Zhang Y. and Xie Y.*, 2007, "Short-Term Freeway Traffic Volume Forecasting Using v-Support Vector Machines," Preprint of the 86th Transportation Research Board annual meeting, Washington D.C.
59. Xie Y.*, Zhang Y., and Liang F., 2007, "Crash Injury Severity Analysis Using a Bayesian Ordered Probit Model," Preprint of the 86th Transportation Research Board annual meeting, Washington D.C.
60. Ye Z.* and Zhang Y., 2007, "Investigating Goodness-of-Fit Test Statistics for Generalized Linear Crash Models with Low Mean Values," Preprint of the 86th Transportation Research Board annual meeting, Washington D.C.
61. Xie Y.*, Lord D., and Zhang Y., 2007, "Predicting Motor Vehicle Collisions Using Bayesian Neural Network Models: Empirical Analysis," Preprint of the 86th Transportation Research Board annual meeting, Washington D.C.
62. Park M.*, Zhang Y., and Pratt M., 2007, "Effect of Weaving Maneuvers on Operations of Free-Flowing Right-Turn Lane at Ramp Terminals," Preprint of the 86th Transportation Research Board annual meeting, Washington D.C.
63. Xie Y.* and Zhang Y., 2006, Application of Wavelet Time Series Analysis in Short-Term Traffic Volume Prediction. Proceedings of the 9th International Conference on Applications of Advanced Technology in Transportation, Chicago, pp. 536-541.
64. Zhang Y. and Xie Y.*, 2006, Comparison of PASSER V, Synchro, and TRANSYT-7F based on CORSIM Simulation Results. Proceedings of the 9th International Conference on Applications of Advanced Technology in Transportation, Chicago, pp. 479-484.
65. Zhang Y. and Ye Z.*, 2006, "A Derivative-Free Nonlinear Algorithm for Speed Estimation Using Data From Single Loop Detectors," Proceedings of the 9th International IEEE Conference on Intelligent Transportation Systems
66. Xie Y.*, Zhang, Y., and Ye, Z.*, 2006, "Short-Term Traffic Volume Forecasting Using Kalman Filter with Discrete Wavelet Decomposition," Preprint of the 85th Transportation Research Board annual meeting, Washington D.C.
67. Abbas, M., Jung, Y.*, and Zhang Y., 2006, "Offset Performance Evaluation Using Stop Bar Detector Data and Microscopic Shockwave Theory," Preprint of the 85th Transportation Research Board annual meeting, Washington D.C.
68. Zhang, Y. and Wu, D., 2005, "Development of Methodologies to Predict Service Lives of Pavement Marking Materials," Preprint of the 84th Transportation Research Board annual meeting, Washington D.C.
69. Zhang, Y., 2004, "Development of an Automated Accident Detection System at Intersections," 8th International Conference on Applications of Advanced Technologies in Transportation Engineering, Beijing.

70. Zhang, Y., Hu, R., Bruce, L., Balraj, N., and Sumit, A., 2004, "Development of Real-Time Automated Accident Detection System at Intersections," Preprint of the 83rd Transportation Research Board annual meeting, Washington, D.C.
71. Zhang, Y., and Owen, L.E., 2004, "Systematic Validation of a Microscopic Traffic Simulation Program," Preprint of the 83rd Transportation Research Board annual meeting, Washington, D.C.
72. Zhang, L., Colyar, J., Halkias, J., and Zhang, Y., 2004, "Validation and Calibration of CORSIM Simulation Model at Signalized Intersections," Preprint of the 83rd Transportation Research Board annual meeting, Washington, D.C.
73. Zhang, Y. and Wu, D., 2003, "Comparative Analysis of Retroreflectivity of Pavement Marking Materials," Preprint of the 82nd Transportation Research Board annual meeting, Washington D.C.
74. Zhang, Y., 2002, "Development and Validation of Advanced Microscopic Traffic Flow Simulation for Modeling and Evaluating ITS Applications," Proceedings of the Third International Conference on Traffic and Transportation Studies (ICTTS'2002), Guilin, China, Vol. 1, pp 793-800.
75. Zhang Y., Zhang L., and Owen L., 2001 "Control Delay definition, Modeling and Calculation in CORSIM," Preprint of the 80th Transportation Research Board annual meeting, Washington, D.C.
76. Owen, L., Zhang, Y., Rao, L., and McHale, G., 2000, "Traffic Flow Simulation Using CORSIM," Proceedings of Winter Simulation Conference 2000, Vol. 2, pp. 1143-1147.
77. Das, S., and Zhang, Y., 2000, "Night Vision for Navigation and Surveillance," Proceedings of the Fourth International Conference on Computational Intelligence & Neurosciences (CI&N), Vol.1, pp. 746-749.
78. Das S., and Zhang, Y., 2000, "Microscopic Simulation of Freeway Traffic Flow Using an Autonomous Agent Model," Proceedings of the Fourth International Conference on Computational Intelligence & Neurosciences (CI&N), Vol. 1, pp.742-745.
79. Das, S., Bowles, B., Houghland, C., Hunn, S., and Zhang, Y., 1999, "A Fuzzy Logic Model of Freeway Drivers," Proceedings of the Conference on Fuzzy Logic & Applications (ISFL), Computational Intelligence Methods & Applications (CIMA), Rochester, New York.
80. Das, S., Bowles, B., Houghland, C., Hunn, S., and Zhang, Y., 1999, "Microscopic Simulations of Freeway Traffic Flow," Proceedings of the Annual Simulation Symposium (ANSS), Advanced Simulation Technology Conference (ASTC), San Diego, California, pp. 79-85.
81. Das, S., Bowles, B., Houghland, C., Hunn, S., and Zhang, Y., 1999, "A Knowledge Based Model of Traffic Behavior in Freeways," Proceedings of the 1999 ACM Symposium on Applied Computing, San Antonio, TX, pp. 14-18.
82. Das, S., Bowles, B., Zhang, Y., Houghland, C., and Hunn, S., 1999, "An Autonomous Agent Model of Highway Driver Behavior," Preprint of the 78th Transportation Research Board annual meeting, Washington, D.C.
83. Owen, L, and Zhang, Y., 1998, "A Multi-Regime Object-Oriented Microscopic Traffic Simulation Model," Proceedings of the ASCE International Conference on Advanced Traffic Technologies, Newport Beach, California, pp. 199-206.
84. Zhang, Y., and Owen, L., 1998, "An Advanced Microscopic Traffic Simulation Approach for Modeling ITS Applications," Proceedings of 1998 IEEE International Conference on Systems, Man, and Cybernetics, La Jolla, California, (Invited paper), pp.3228-3233.
85. Zhang, Y., and Hobeika, A., 1997, "An Optimal Traffic Control Strategy for a Corridor under Incident Conditions," Proceedings of the Conference on Intelligent Systems and Automated Manufacturing, SPIE (The International Society for Optical Engineering), Pittsburgh, Vol. 3207, pp. 172-183.
86. Ozbay, K., Hobeika, A., and Zhang Y., 1997, "Analysis of Incident Data in Northern Virginia," Preprint of the 76th Transportation Research Board annual meeting, Washington D.C.

c. <u>Conference Presentations (papers published in journals later on)</u>
1. Kong, X.*, Eisele, W., and Zhang Y., 2018, "Development and Application of a Framework to Classify and Mitigate Truck Bottlenecks to Improve Freight Mobility," Paper presented at the 97th Transportation Research Board annual meeting, Washington D.C.
2. Zhang X., Yao Y., Du H., Zhang Y., and Rong J., 2018, "Classification of Distracted Driving Based on Visual Features and Behavior Data Using a Random Forest Method," Paper presented at the 97th Transportation Research Board annual meeting, Washington D.C.
3. Sun X., Zeng X.*, Zhang Y., and Quadrifoglio L, 2015, "Person-based Adaptive Priority Signal Control with Connected-vehicle Information," Paper presented at the 94th Transportation Research Board annual meeting, Washington D.C.
4. Chen Z.*, Zhang Y., Lv J.*, and Zou Y.*, 2014, "Model for Optimization of Ecodriving at Signalized Intersection," Paper presented at the 93th Transportation Research Board annual meeting, Washington D.C.
5. Zou Y.*, Lord D., Zhang Y., and Peng Y., 2013, "Comparison of Sichel and Negative Binomial Models in Estimating Empirical Bayes Estimates." Paper presented at the 92nd Transportation Research Board annual meeting, Washington D.C.
6. Ge H.*, Zhang Y., Miles J., and Carlson P., 2013, "Assessment of Background Complexity of Overhead Guide Signs from Nighttime Digital Images of Roadway Scenes by Image Processing." Paper presented at the 92nd Transportation Research Board annual meeting, Washington D.C.
7. Zeng X.*, Zhang Y., and Praprut S., 2013, "Probability Model for Understanding Effect of Detector Delay on Right-Turn-on-Red Traffic." Paper presented at the 92nd Transportation Research Board annual meeting, Washington D.C.
8. Fitzpatrick K., Brewer M., Eisele W., Zhang Y., 2012, Gluck J., Levinson H., and Iragavarapu V., "Development of Left-Turn Lane Warrants for Unsignalized Intersections." Paper presented at the 91st Transportation Research Board annual meeting, Washington D.C.
9. Zhang Y. and Ge H.*, 2012, "Assessing Presence Conditions of Pavement Markings Using Image Processing." Paper presented at the 91st Transportation Research Board annual meeting, Washington D.C.
10. Zou Y.* and Zhang Y., 2011, "Use of Skew-Normal and Skew-T Distributions for Mixture Modeling of Freeway Speed Data." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.
11. Kai Y., Y. Zhang, and B. Wang, 2011, "Modeling Delay for Signalized Intersections with Short Left-Turn Bay During Heavy Traffic." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.
12. Zhang Y., P. Adam, H. Ge*, and P. Carlson, 2011, "Comparison of Different Designs of Field Test Decks for Pavement Marking Materials." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.
13. Eisele W., Y. Zhang, E. Park, Zhang Y.*, and R. Stensrud*, 2011, "Developing and Applying Arterial Corridor Travel Time Index Estimation Models for Transportation Planning in Small to Medium-Sized Communities." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.
14. Wan F. *, Y. Zhang, and K. Fitzpatrick, 2011, "Analysis of Platoon Impacts on Left-Turn Delay at Unsignalized Intersections." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.
15. Zhang N., Y. Zhang, and H. Lu, 2011, "Short-Term Freeway Traffic Flow Prediction Combining Seasonal Autoregressive Integrated Moving Average and Support Vector." Paper presented at the 90th Transportation Research Board annual meeting, Washington D.C.

16. Azimi M. and Y. Zhang, 2010, "Categorizing Freeway Flow Conditions Using Clustering Methods." Paper presented at the 89th Transportation Research Board annual meeting, Washington D.C.
17. Yin K., Zhang Y., and Wang B., 2010, "Analytical Models for Protected plus Permitted Left-Turn Capacity at a Signalized Intersection with Heavy Traffic," Paper presented at the 89th Transportation Research Board annual meeting, Washington D.C.
18. Kota S., Y. Qi and Y. Zhang, 2010, TAMNROM-3D: A Three-Dimensional Eulerian Model to Simulate Air Quality near Highways. Paper presented at the 89th Transportation Research Board annual meeting, Washington D.C.
19. Ye F., and Zhang Y., 2009, "Vehicle-Type-Specific Headway Analysis Using Freeway Traffic Data," Paper presented at the 88th Transportation Research Board annual meeting, Washington D.C.
20. Zhang Y. and Tong J.*, 2008, "Modeling Left-Turn Blockage and Capacity at Signalized Intersection with Short Left-Turn Bay," Paper presented at the 87th Transportation Research Board annual meeting, Washington D.C.
21. Zhang Y. and Xie Y.*, 2008, "Travel Mode Choice Modeling Using Support Vector Machines," Paper presented at the 87th Transportation Research Board annual meeting, Washington D.C.
22. Xie Y.* and Zhang Y., 2008, "Crash Frequency Analysis Using Generalized Additive Models," Paper presented at the 87th Transportation Research Board annual meeting, Washington D.C.
23. Zhang Y. and Xie Y.*, 2007, "Forecasting of Short-Term Freeway Volume with v-Support Vector Machines," Paper presented at the 86th Transportation Research Board annual meeting, Washington D.C.
24. Ye Z.*, Zhang Y., and Lord D., 2007, "Estimating Dispersion Parameter of Negative Binomial Distribution for Analyzing Crash Data Using Bootstrapped Maximum Likelihood Method," Paper presented at the 86th Transportation Research Board annual meeting, Washington D.C.
25. Li L.* and Zhang Y., 2007, "GIS-Based Bayesian Approach for Identifying Hazardous Roadway Segments for Traffic Crashes," Paper presented at the 86th Transportation Research Board Annual Meeting, Washington D.C.
26. Zhang Y., Agrawal R., Schrock S., and Tong J.*, 2007, "Finite Element Modeling of Stresses Inside a Raised Pavement Marker During Tire-Marker Impacts Under Various External Factors," Paper presented at the 86th Transportation Research Board annual meeting, Washington D.C.
27. Zhang Y. and Xie Y.*, 2006, "Application of Genetic Neural Networks in Real-Time Intersection Accident Detection Using Acoustic Signals," Paper presented at the 85th Transportation Research Board annual meeting, Washington D.C.
28. Ye Z.*, Zhang Y., and Middleton. D., 2006, "An Unscented Kalman Filter Method for Speed Estimation Using Single Loop Detector Data," Paper presented at the 85th Transportation Research Board annual meeting, Washington D.C.
29. Tan, A., Bowden, R., and Zhang, Y., 2004, "A Virtual Simulation of Statewide Intermodal Freight Traffic," Paper presented at the 83rd Transportation Research Board annual meeting, Washington, D.C.
30. Bruce, L., Zhang, Y., Balraj, N. and Yu, Q., 2003, "Automated Accident Detection in Intersections via Digital Audio Signal Processing," Paper presented at the 82nd Transportation Research Board annual meeting, Washington, D.C.
31. Zhang, L., McHale, G., and Zhang, Y., 2003, "Modeling and Validating CORSIM Freeway Origin Destination Volumes," Paper presented at the 82nd Transportation Research Board annual meeting, Washington, D.C.
32. Zhang, Y., Owen, L., and Clark, J., 1998, "A Multi-Regime Approach for Microscopic Traffic Simulation," Paper presented at the 77th Transportation Research Board annual meeting, Washington, D.C.

d. <u>Research Reports</u>
1. Lu Q., Gunaratne, M., Zhang, Y., Guo, L., and Yu, B., "Quantification of the Physical Properties Required of Raised Pavement Markers and Accelerated Laboratory Testing," Research Report No. BDK 84-977-23, the Florida Department of Transportation, 2014.
2. Miles J., Ge, H.*, Carlson, P., and Zhang, Y., "Prototype Mobile Luminance Measurement System and Level of Service for Evaluating Rural High-Speed Nighttime Delineation," Research report 0-6647-1, , the Texas Department of Transportation, 2013.
3. Zhang Y., Ge, H.*, Pike, A., and Carlson, P., "Development of Field Performance Evaluation Tools and Program for Pavement Marking Materials," Research Report 0-5548-1, the Texas Department of Transportation, 2011.
4. Zhang Y., Ying, Q., Lv, J.*, and Kota, S., "Methodology and Guidelines for Regulating Traffic Flows under Air Quality Constraints in Metropolitan Area," University Transportation Center for Mobility report, 2010.
5. Zhang Y., Tong, J*. Carlson, P., Hawkins, G., and Keating P., "Development of Measures to Improve Field Performance of Retroreflective Raised Pavement Markers," Research Report 0-5089-1, the Texas Department of Transportation, February, 2009.
6. Praprut S., Balke, K., Zeng, X.*, C., Zhang, Y., and Pesti, G., "Evaluating and Improving Incident Management Using Historical incident Data: Case Studies at Texas Transportation Management Centers," Research Report 0-5485-1, the Texas Department of Transportation, October, 2008.
7. Zhang Y., Xie, Y.*, and Ye, Z.*, "Development and Evaluation of Multi-Agent Based Neuro-Fuzzy Arterial Traffic Signal Control System," Research Report SWUTC/07/473700-00092-1, submitted to Southwest University Transportation Center, October 2007.
8. Zhang, Y., Ye, Z.*, and Xie, Y.*, "Accurate Speed Estimation Using Single Lop Detector Data," Research Report 167761-1 submitted to Southwest University Transportation Center, October 2006.
9. Zhang, Y., Hu, R., and Xie, Y.*, "Implementation of a Real-Time Intersection Accident Detection System," Phase 1 Final report submitted to the Mississippi Department of Transportation, October, 2004.
10. Zhang, Y., and Wu, D., "Development of Trustworthy Intermodal Traffic Measurement," final report submitted to the National Center of Intermodal Transportation, October, 2004.
11. Zhang, Y., and Bruce, L., "Automated Accident Detection at Intersections," Final report submitted to Mississippi Department of transportation, September 2003.
12. Zhang, Y., Bowden, R., and Allen A., "Intermodal Freight Transportation Planning Using Commodity Flow Data," Final report submitted to the National Center for Intermodal Transportation, June 2003.
13. Owen L., Stallard, C., and Zhang, Y., "An Evaluation of Real-Time Traffic Adaptive Control Prototypes," Report submitted to the Federal Highway Administration, Colorado Springs, Colorado, May, 1999.
14. Owen, L., Zhang, Y., Sunkari, S., Rao, L., and Masterbrook, S., "A Compendium of Traffic Model Validation Documentation and Recommendations, Phase I Report," Report No. 3892, Federal Highway Administration, Washington, DC, December 1996.
15. Kachroo, P., Ozbay, K., and Zhang, Y., "Wide-Area Incident Management System and Software," Demonstration Project No. 86 final report, Federal Highway Administration, October 1996.
16. Subramaniam, S., Zhang, Y., Sundar, S., and Masterbrook, S., "Wide-Area Incident Management System," Federal Highway Administration, July 1994.
17. Wu, W., Zhang, Y., and Li, F., "User's Manual for Interchange Sub-system of HICADS (Highway and Interchange Computer Aided Design System)," Ministry of Communications and Transportation, China, 1991. (In Chinese)
18. Wu, W., Zhang, Y., and Li, F., "Technical Maintenance Manual for Interchange Sub-system of HICADS (Highway and Interchange Computer Aided Design System)," Ministry of Communications and Transportation, China, 1991. (In Chinese)

19. Zhang, Y., and Li, F., "User's Manual for Highway Horizontal Alignment Optimization Sub-system of HICADS (Highway and Interchange Computer Aided Design System)," Ministry of Communications and Transportation, China, 1991. (In Chinese)
20. Zhang, Y., and Li, F., "Technical Maintenance Manual for Highway Horizontal Alignment Optimization Sub-system of HICADS (Highway and Interchange Computer Aided Design System)," Ministry of Communications and Transportation, China, 1991. (In Chinese)

e. Other Publications
  1. Transportation Research Circular, Number E-C168, November 2012 (multiple authors).
  2. Book Review of "Transportation Engineering Basics," published in the *Journal of Transportation Engineering*, Volume 128, Number 5, September/October 2002, pp. 479.
  3. Contributing author of "A New Transportation Agenda for America in the Aftermath of 11 September 2001," NCIT-National Center for Intermodal Transportation, November 2001.

OTHER SCHOLARLY ACTIVITIES
- Editorial Board Member, Transportation Research Part C.
- Member, ITE Traffic Management Center (TMC) Committee
- Member, TRB Committee ABJ70: Artificial Intelligence and Advanced Computing Applications
- Chair, Research Subcommittee, TRB Committee ABJ70
- Co-Chair, Education Subcommittee, TRB Committee ABJ70
- Member, TRB Simulation Joint Subcommittee (AHB20 AHB25 AHB40 AHB45)
- Member, TRB Committee AHB25(3),Traffic Signal Systems simulation Subcommittee
- Friend, TRB Committee AHB20: Freeway Operation
- Friend, TRB Committee AHB25: Traffic Signal Systems
- Friend, TRB Committee AHB45: Traffic Flow Theory and Characteristics
- Friend, TRB Committee AHB40: Highway Capacity and Quality of Service
- Special Issue Editor, Special Issue of *Transportation Research, Part C: Emerging Technologies*
- Reviewed papers for the following journals:
  - *Transportation Research, Part B: Methodological*
  - *Transportation Research, Part C: Emerging Technologies* (26 papers reviewed since 2010)
  - *Transportation Research, Part D: Transport and Environment*
  - *Transportation Research, Part E: Logistics and Transportation Review*
  - *Accident Analysis & Prevention*
  - *Safety Science*
  - *Safety Research*
  - *Transportation Research Record* (75 papers reviewed since 2010)
  - ASCE's *Journal of Transportation Engineering*
  - *Journal of Intelligent transportation Systems*
  - *International Journal of Simulation and Modeling*
  - *Journal of Computer-Aided Civil and Infrastructure Engineering*
  - *Transportmetrics*
  - *IEEE Transactions on Intelligent Transportation Systems*
  - *Journal of Advanced Transportation*
  - *Journal of Transport and Land Use*
  - *Journal of Korean Society of Civil Engineering*
  - *Journal of Canadian journal of Civil Engineering*
  - *Journal of Modern Transportation*
  - *Journal of Southeast University Press*
  - *Neural Letters*

- o *Tsinghua Science*
- o *Kuwait Journal of Science and Engineering*
- o *Applied Math and Computation*
- o *Mathematical Problems in Engineering*
- o ASCE's *Journal of Professional Issues in Engineering Education and Practice*
- Reviewed textbook "Transportation Engineering Basics," published by ASCE Press (2002)
- Reviewed textbook "Principles of Highway Engineering and Traffic Analysis," published by John Wiley & Sons, Inc. (2003)
- Reviewed textbook proposal "traffic Flow Theory" for Oxford University Press (2015)
- Review textbook proposal "Highway Capacity Analysis" for Cognella (2016)
- Reviewed proposals for the *National Science Foundation of Qatar*
- Reviewed proposals for *National Science Foundation of China (over 40 proposals from 2012 to 2015)*
- Reviewed proposals for *Research Grants council of Hong Kong*
- Reviewed proposals for several university transportation centers in the US.
- Editorial board member, Journal of Traffic Engineering and Control (Chinese)
- Education Coordinator, the National Center for Intermodal Transportation (NCIT) 2000-2004
- Associate Editor and International Committee Member, the 11th International IEEE Conference on Intelligent Transportation Systems (2008)
- Associate Editor and International Committee Member, the 10th International IEEE Conference on Intelligent Transportation Systems (2007)
- Associate Editor, the 9th International IEEE Conference on Intelligent Transportation Systems (2006)
- International Program Committee Member, 2009 IEEE Intelligent Vehicle Symposium (2009)
- Organized and chaired special session on Intelligent Transportation Systems at the Fourth International Conference on Computational Intelligence & Neurosciences (CI&N) (2000)
- Served as an invited panel member at the 1st Annual FHWA/Education Research conference in Washington, D.C. (June 2001)
- Edited and updated FE Reference Handbook for the National Council of Examiners for Engineering and Surveying (NCEES) (2003)

RESEARCH GRANTS AND AWARDS RECEIVED

Year	*Sponsor (Amt)*	*Title*	*Involvement (Amt. responsible for)*
2016	USDOT/Freight Mobility Research Institute (70,000)	Eco-Driving study on Trucks along a Signalized Arterial with Significant Freight Traffic	PI (70,000)
2015	Federal Aviation Administration (FAA) (252,311)	LED Lighting: Hot/Cold Performance Testing	PI (252,311)
2014	Advanced Transportation Leadership and Safety Center, University of Michigan ($60,507)	Behaviors to Simulation Technology	Co-PI ($30,000)

2014	USDOT/Southwest University Transportation Center Ph.D. Dissertation Fellowship ($26,131)	Arterial Signal Coordination in Connected Vehicle Environment	PI ($26,131)
2013	USDOT/Southwest University Transportation Center Ph.D. Dissertation Fellowship ($32,079)	Multivariate Modeling of Freeway Traffic Variables	PI ($32,079)
2012	Florida Department of Transportation ($195,474)	Quantification of the Physical Properties Required of Raised Pavement Markers and Accelerated Laboratory Testing	Co-PI ($83,879)
2012	USDOT/Southwest University Transportation Center ($36,625)	Enhanced Adaptive Signal Control Using Dedicated Short Range Communications	PI
2011	Texas Department of Transportation ($298,565)	Developing a Luminance-Based Mobile Highway Delineation Equipment and Level of Service Guidelines for Safe Nighttime High-Speed Travel	Researcher ($40,000)
2011	Distinguished Overseas Investigator Award from the National Science Foundation of China (RMB200,000)	Transportation Planning and Operation Methods Considering Air Quality	PI (RMB200,000)
2011	National Cooperative Highway Research Program (NCHRP) ($600,000)	Guidelines for Nighttime Visibility of Overhead Guide Signs	Researcher ($40,000)
2009	USDOT/Southwest University Transportation Center ($64,475)	Automated Generation of Virtual Scenarios in Driving Simulator from Highway Design Data	Co-PI ($32,237)
2008	National Cooperative Highway Research Program (NCHRP) ($350,000)	Left-Turn Accommodations at Unsignalized Intersections	Researcher ($25,000)

2007	Texas Department of Transportation ($316,741)	Development of Field Performance Evaluation Tools and Program for Pavement Marking Materials	PI ($316,741)
2007	USDOT/University Transportation Center for Mobility ($112,865)	Methodology and Guideline for Regulating Traffic Flows under Air Quality Constraints in Metropolitan Areas	PI ($112,865)
2006	USDOT/Southwest University Transportation Center ($63,840)	Development and Evaluation of a Multi-Agent Based Neuro-Fuzzy Arterial Traffic Signal Control System	PI ($63,840)
2006	Texas Department of Transportation ($230, 800)	Incorporating Historical Incident Data into Incident Detection and Performance Measures at Transportation Management Centers	Researcher ($18,500)
2005	USDOT/Southwest University Transportation Center ($45,000)	Accurate Speed Estimation Using Single Loop Detector Data	PI ($45,000)
2004	Texas Department of Transportation ($300,385)	Raised Pavement Marker Improvements	PI ($300,385)
2003	Mississippi Department of Transportation (MDOT) ($45,000)	Implementation of a Real-time Intersection Accident Detection System (Phase 1)	PI ($45,000)
2003	National Center for Intermodal Transportation ($85,924)	Development of Trustworthy Intermodal Measure	PI ($85,924)
2003	National Center for Intermodal Transportation and MDOT ($127,308)	Transportation Responses to Increased Latin American Trade	Co-PI ($63,654)
2003	Mississippi Department of Transportation ($150,000)	Study on Traffic Flow Operation in Freeway Work Zones	PI ($150,000)
2003	Golden Triangle Regional Airport, Cities of Starkville, Columbus and West Point, and Mississippi State University ($30,000)	Small Community Air Service Study	PI ($30,000)

2001	National Center for Intermodal Transportation ($16,520)	Defining the Virtual Intermodal Transportation System (VITS) for Intermodal Education and Planning	PI ($16,520)
2001	Federal Highway Administration through ITT Industries, Systems Division ($52,451)	Program Support for the Advanced Traffic Management System (ATMS) R&D	PI ($52,451)
2001	National Center for Intermodal Transportation and Mississippi Department of Transportation ($208,197)	Intermodal Freight Transportation Planning Using Commodity Flow Data	PI ($208,197)
2001	Mississippi Department of Transportation ($95,318)	Automated Accident Detection at Intersections	PI ($95,318)
2002	American Association of State Highway and Transportation Officials (AASHTO) ($278,763)	AASHTO National Transportation Product Evaluation Program Field Evaluation of Pavement Marking Materials	PI ($278,763)

GRADUATE STUDENTS ADVISING

a. Master's

Graduated 28 MS (thesis option) students and 6 ME students (non-thesis)

b. Doctorate

Yuanchang Xie, graduated in December 2007. Winner of the Southwest University Transportation Center (SWUTC, with member universities include Texas A&M and University of Texas)'s Most Outstanding Student of the Year Award (the Robert Herman Award). Currently an Assistant Professor at University of Massachusetts Lowell.

Zhirui Ye, graduated in December 2007. Winner of the SWUTC's Most Outstanding Student of the Year Award (the Robert Herman Award). Currently a full Professor at Southeast University in China

Xiugang Li (co-advised), graduated in August 2009. Winner of the SWUTC's Most Outstanding Student of the Year Award (the Robert Herman Award). Currently a Senior Analyst at Oregon DOT

Jinpeng Lv, graduated in December 2012. Winner of the SWUTC's Most Outstanding Student of the Year Award (the Robert Herman Award). Currently attending business school (Ph.D.) in Australia.

Zou Yajie, graduated in August 2014. Currently an Associate Professor in Tongji University in China.

Xiaosi Zeng, graduated in December 2014, Recipient of Texas A&M University Ph.D. Dissertation Fellowship. Currently a Senior Analyst at UBER.

Kamonthep Tiaprasert, Graduate in May 2016. Currently a research faculty in Tongji University.

Jian Jiao, graduation date TBD.

Apoorba Bibeka, graduation date TBD.

Xiaoqiang Kong, graduation date TBD.

Xiao Xiao, graduation date TBD.

Fnu Sirajum Munira, graduation date TBD.

COURSES TAUGHT

    a.   Texas A&M University

CVEN 307	Transportation Engineering (undergraduate)
CVEN 457	Urban Traffic Facilities (undergraduate)
CVEN 617	Transportation Engineering: Characteristics (graduate)
CVEN 618	Transportation Engineering: Operations (graduate)
CVEN 689	Urban Traffic Facilities (graduate, stacked with CVEN 457)
CVEN 681	Transportation Seminar

The following table summarizes teaching evaluation scores on a scale from 1 (Serious Deficiencies) to 5 (Excellent).

Class	Semester	No. of Students	Question Number								Average
			1	2	3	4	5	6	7	8	
CVEN307	Fall 04	44	3.94	3.88	3.47	3.94	4.03	4.06	4.00	3.72	3.88
	Fall 05	60	4.03	3.65	3.40	3.85	3.85	3.80	3.72	3.35	3.70
	Fall 05	51	4.13	4.17	3.6	4.17	4.32	4.17	4.21	3.94	4.09
	Fall 06	59	4.34	4.26	3.92	4.27	4.26	4.19	4.08	4.09	4.18
	Spring 08	27	4.42	4.19	4.12	4.15	4.31	4.31	4.35	4.08	4.24
	Fall 09	49	4.30	4.43	4.13	4.40	4.38	4.40	4.33	3.90	4.28
	Fall 10	52	4.44	4.51	4.07	4.41	4.39	4.29	4.49	4.22	4.35
	Fall 11	50	4.36	4.30	3.89	4.13	4.21	4.17	4.38	3.94	4.17
	Fall 12	51	4.54	4.56	4.15	4.46	4.61	4.56	4.68	4.39	4.49

	Fall 13	50	4.61	4.58	4.52	4.68	4.61	4.58	4.65	4.68	4.61
	Fall 14	52	4.49	4.27	4.05	4.41	4.49	4.43	4.59	4.24	4.37
	Fall 16										4.38
CVEN457	Fall 08	19	4.79	4.57	4.21	4.50	4.64	4.64	4.57	4.57	4.56
CVEN617	Fall 06	14	3.77	3.85	3.69	3.77	3.85	4.23	3.69	3.77	3.83
	Fall 07	16	4.55	4.55	4.45	4.55	4.45	4.91	4.91	4.64	4.63
	Fall 08	26	4.29	4.33	4.25	4.63	4.50	4.70	4.50	4.54	4.47
	Fall 09	23	4.87	4.60	4.67	4.73	4.73	4.80	4.73	4.73	4.73
	Fall 10	11	4.70	4.30	4.50	4.40	4.40	4.50	4.40	4.30	4.44
	Fall 11	15	4.64	4.29	4.29	4.43	4.29	4.50	4.36	4.30	4.40
	Fall 12	15	4.86	4.71	4.86	4.79	4.86	4.93	4.86	4.79	4.83
	Fall 13	21	4.93	4.86	4.93	4.86	4.79	4.86	4.93	5.00	4.90
	Fall 14	20	4.56	4.28	4.56	4.72	4.56	4.56	4.72	4.44	4.55
	Fall 15	21	4.88	4.75	4.88	5.00	5.00	5.00	4.88	5.00	4.92
	Fall 16	22									4.74
CVEN618	Spring 05	14	4.46	4.69	4.00	4.54	4.31	4.46	4.46	4.54	4.43
	Spring 06	18	4.39	4.28	4.22	4.44	4.50	4.50	4.56	4.33	4.40
	Spring 07	10	4.50	4.50	4.10	4.60	4.60	4.90	4.70	4.40	4.54
	Spring 08	17	4.75	4.63	4.63	4.81	4.81	4.88	4.63	4.85	4.74
	Spring 09	22	4.44	4.38	4.06	4.50	4.31	4.38	4.50	4.38	4.37
	Spring 10	19	4.47	4.68	4.53	4.79	4.63	4.63	4.74	4.63	4.64
	Spring 11	13	3.94	3.88	3.88	4.25	4.25	4.31	4.38	4.00	4.11
	Spring 12	19	4.65	4.53	3.35	4.59	4.65	4.76	4.53	4.44	4.56
	Spring 13	13	4.80	4.80	4.70	4.59	5.00	4.70	4.89	4.80	4.78

	Spring 14	19	4.79	4.71	4.79	4.79	4.64	4.79	4.79	4.64	4.71
	Spring 15	21	4.53	4.53	4.53	4.87	4.73	4.73	4.93	4.87	4.72
	Spring 16	16	4.83	4.83	4.67	4.83	4.92	5.00	4.92	4.67	4.83

b. Mississippi State University (2000-2004)
CE 3113   Transportation Engineering
CE 4133   Geometric Design of Highways
CE 4143/6143   Traffic Engineering
CE 4990/8990   Design and Analysis of Traffic Systems
CE 8113   Traffic Flow Theory

c. Southeast University (1987-1992)
Highway Geometric Design
Highway Engineering
Computer Aided Highway Design and Optimization
FORTRAN Programming

d. Other Courses
"Traffic Signal Operations," demo undergraduate course (as a part of a regular course) taught in English at Southeast University, Nanjing, China, June 2011, June 2012, June 2013
"Geometric Design and Safety," demo graduate course taught in English at Southeast University, Nanjing, China, June 2014
"Traffic Signal Control and Operations," a summer graduate course taught at Beijing University of Technologies., Beijing, China, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014.
"Traffic Simulation and Modeling," a summer graduate course taught at Beijing University of Technologies., Beijing, China, 2005.

SERVICE TO UNIVERSITY AND COMMUNITY

a. Texas A&M University
- Assistant Department Head, Zachry Department of Civil Engineering (summer 2013-present)
- Director, Civil Engineering Department Graduate office (summer 2013-present)
- Member, Texas A&M Distinguished Graduate Student Awards Committee representing College of Engineering (2016)
- Member, College of Engineering Graduate Teaching Fellows Selection and Advising committee (fall 2014-present)
- Member, College of Engineering Graduate Instruction Committee (GIC) (summer 2013-present)
- Member, Evaluation Committee for College of Engineering Graduate Director Search (2016)
- Member, Civil Engineering Standing Faculty Search Committee (2016-Present)
- Member, Civil Engineering Curriculum Committee (2011-present)
- Member, Civil Engineering Curriculum Transformation Team (2013-present)
- Graduate Coordinator, transportation group in Zachry Department of Civil Engineering (Spring 2009-2013)
- Member, Civil Engineering Peer Review of Teaching (PRT) policy review task committee (spring 2009)

- SWUTC award regional review/selection committee, representing Texas A&M (2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015)
- SWUTC award regional review/selection committee chair (2007, 2010, 2013)
- Member, Transportation Faculty Search Committee (2014, 2007, 2014)
- Advised undergraduate students
- Graduation Ceremony Marshal for Civil Engineering Department (May 2006)
- Civil Engineering Transportation Area Web Contact (2004-2010)
- Faculty Advisor, Institute of Transportation Engineers (ITE) student chapter (2004 -2006)
- Jacobs Engineering Scholarship in Civil Engineering Selection Committee, Member (2005-2008)
- Kimley-Horn Graduate Scholarship Selection Committee, Member (2005-2008)
- Sherryl and Steven Hofener '77 Fellowship selection committee member (2007-2013)
- William R. "Dick" McCasland '55 Fellowship in Traffic Engineering selection committee member (2007-2013)

b. <u>Mississippi State University</u>
- Graduate Coordinator, Civil Engineering Department (2002-2004)
- Member, Civil Engineering Computer Committee
- Member, Civil Engineering ABET Committee
- Member, Civil Engineering Curriculum Committee
- Faculty Advisor, MSU Institute of Transportation Engineers (ITE) student chapter (2000-2004)
- Conducted PE review classes for Mississippi Department of Transportation (twice a year from October 2000 to April 2004)
- Conducted traffic study for Blackjack Road (university entrance road) improvement project (2000)
- Advised multiple parties to resolve public school carpool problems (2003)
- Conduct small community air service study for the Golden Triangle Regional Airport, and cities of Starkville and Columbus (2003)

c. <u>Service to community</u>
- Certified USA Swimming administrative official, meet director