

Yingyan Lou, Ph.D.

Federal Aviation Administration Certified Private Pilot

Assistant Professor, Civil, Environmental and Sustainable Engineering

School of Sustainable Engineering and the Built Environment, Arizona State University

480-965-6361, Yingyan.lou@asu.edu

BASIC INFORMATION

ACADEMIC EXPERIENCE

- Assistant Professor (Aug. 2013 – present)
Civil, Environmental and Sustainable Engineering, School of Sustainable Engineering and the Built Environment, Arizona State University, Tempe, AZ
- Assistant Professor (Aug. 2009 – Aug. 2013)
Department of Civil, Construction and Environmental Engineering, The University of Alabama, Tuscaloosa, AL

EDUCATION

- Ph.D. in Civil Engineering (August 2009)
Department of Civil and Coastal Engineering, University of Florida, Gainesville, FL, USA
- M.S. in Civil Engineering (December 2007)
Department of Civil and Coastal Engineering, University of Florida, Gainesville, FL, USA
- B.S. (July 2005)
Department of Mechanics and Engineering Sciences, Beijing University, Beijing, P.R.China
- B.A.Econ. (July 2005)
China Center for Economic Research, Beijing University, Beijing, P.R.China

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RESEARCH ACTIVITIES**PUBLICATIONS¹****Refereed Journal Publications**

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14. | Clark, R. (*), Kaw, A., <u>Lou, Y.</u> , Scott, A., Besterfield-Sacre, M. (2017) Evaluating blended and flipped instruction in numerical methods at multiple engineering schools. <i>International Journal for the Scholarship of Teaching and Learning</i> . (accepted)
Miralinaghi, S. (*)(∞), <u>Lou, Y.</u> , Keskin, B., Zarrinmehr, A., and Shabanpour, A. (2017) Refueling station location problem with traffic deviation considering route choice and demand uncertainty. <i>International Journal of Hydrogen Energy</i> , 42 (5), 3335-3351.
Miralinaghi, S. (*)(∞), Keskin, B., <u>Lou, Y.</u> , and Roshandeh, A. (2017) Capacitated refueling station location problem with traffic deviations over multiple time periods. <i>Networks and Spatial Economics</i> , 17(1), 129-151.
Reyna J. (*)(∞), Vadlamani, S. (∞), Chester, M., and <u>Lou, Y.</u> (2016) Reducing emissions at land border crossings through queue reduction and expedited security processing. <i>Transportation Research, Part D</i> , Vol. 49, 219-230.
<u>Lou, Y.</u> (*), Li, P. (∞), and Hong, X. (2016) A distributed framework for network-wide traffic monitoring and platoon information aggregation using V2V communications. <i>Transportation Research, Part C</i> . Vol. 69, 356-374.
Miralinaghi, M. (*)(∞), <u>Lou, Y.</u> , Hsu, Y., and Shafahi, Y. (2016) Multiclass fuzzy user equilibrium with endogenous membership functions and risk-taking behaviors. <i>Journal of Advanced Transportation</i> , 50(8), 1716-1734.
Li, P. (∞) and <u>Lou, Y.</u> (*) (2015) An integer multi-objective optimization model and an enhanced non-dominated sorting genetic algorithm for the contraflow scheduling problem, <i>Journal of Central South University</i> , Vol. 22, 2399-2405.
Mehta G. (∞), Li J. (*)(∞), Fields, R. (∞), <u>Lou, Y.</u> and Jones, S. (2015) Safety performance function development for analysis for bridges. <i>Journal of Transportation Engineering</i> , Vol. 141(8), 04015010
Zhang, L. (*) and <u>Lou, Y.</u> (2015) Coordination of semi-actuated signals on arterials. <i>Journal of Advanced Transportation</i> , Vol. 49(2), 228-246.
Kulshrestha, A., <u>Lou, Y.</u> and Yin, Y. (*) (2014) Pick-up locations and bus allocation for transit-based evacuation planning with demand uncertainty. <i>Journal of Advanced Transportation</i> , Vol. 48, 721-733.
Mehta, G. (∞) and <u>Lou, Y.</u> (*) (2013) Calibration and development of safety performance functions for Alabama: two-lane two-way rural roads and four-lane divided highways. <i>Transportation Research Record: Journal of the Transportation Research Board</i> , Vol. 2398(1), 75-82.
Fonseca, D. (*), <u>Lou, Y.</u> , Moynihan, G., and Gurupackiam, S. (2013) Incident occurrence modeling during hurricane evacuation events: the case of Alabama's I-65 corridor. <i>Modelling and Simulation in Engineering</i> , Vol. 2013, Article ID 168126, 6 pages, doi:10.1155/2013/168126.
<u>Lou, Y.</u> (*) (2013) A unified framework of proactive self-learning dynamic pricing for high-occupancy/toll lanes. <i>Transportmetrica A: Transport Science</i> , Vol. 9(3) 205-225. |
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¹ Common practice in my areas of study is to list the student and/or postdoc first and faculty at or towards the end of the author list. I generally follow this practice.

- Legend*
- (*) = Corresponding Author
- (∞) = Student / Postdoc Coauthor
13. Mehta, G. (∞) and Lou, Y. (*) (2013) Modeling school bus seat belt usage: nested and mixed logit approaches. *Accident Analysis and Prevention*, Vol. 51, 56-67.
 12. Lou, Y. (*) and Zhang, L. (2011) Defending transportation networks against random and targeted attacks. *Transportation Research Record: Journal of the Transportation Research Board*, 2234, 31-40.
 11. Lou, Y., Yin, Y. (*), and Laval, J. (2011) Optimal dynamic pricing strategies for high-occupancy/toll lanes. *Transportation Research, Part C*, Vol. 19(1), 64-74.
 10. Xu, H., Lou, Y., Yin, Y. (*) and Zhou, J. (2011) A prospect-based user equilibrium model with endogenous reference points. *Transportation Research, Part B*, Vol. 45(2), 311-328.
 9. Lou, Y., Yin, Y. (*), and Lawphongpanich, S. (2011) Freeway service patrol deployment planning for incident management and congestion mitigation. *Transportation Research, Part C*, Vol. 19(2), 283-295.
 8. Lou, Y. (*), Mehta, G. (∞), and Turner, D. (2011) Factors influencing students' usage of school bus seat belts: An empirical analysis of the Alabama pilot project. *Accident Analysis and Prevention*, Vol. 43(9), 1644-1651.
 7. Kulshrestha, A., Wu, D., Lou, Y., and Yin, Y. (*) (2011) Robust shelter locations for evacuation planning with demand uncertainty. *Journal of Transportation Safety & Security*, Vol. 3, 272-288.
 6. Lou, Y., Yin, Y. (*) and Lawphongpanich, S. (2010) Robust congestion pricing with boundedly rational user equilibrium. *Transportation Research, Part B*, Vol. 44(1), 15-28.
 5. Lou, Y. and Yin, Y. (*) (2010) A decomposition scheme for estimating dynamic origin-destination flows on actuation-controlled signalized arterials. *Transportation Research, Part C*, Vol. 18(5), 643-645.
 4. Zhang, L., Yin, Y. (*), and Lou, Y. (2010) Robust signal timing for arterials under day-to-day demand variations. *Transportation Research Record: Journal of the Transportation Research Board*, 2192, 156-166.
 3. Lou, Y., Yin, Y. (*), and Lawphongpanich, S. (2009) A robust approach to discrete network designs with demand uncertainty. *Transportation Research Record: Journal of the Transportation Research Board*, 2090, 86-94.
 2. Yin, Y. (*) and Lou, Y. (2009) Dynamic tolling strategies for managed lanes. *ASCE Journal of Transportation Engineering*, Vol. 135(2), 45-52.
 1. Yin, Y. (*), Lawphongpanich, S., and Lou, Y. (2008) Estimating investment requirement for maintaining and improving highway systems. *Transportation Research, Part C*, Vol. 16(2), 199-211.

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- (*) = Corresponding Author
- (∞) = Student / Postdoc Coauthor

Manuscripts Submitted and in Preparation

5. Xiao, J. (∞), Lou, Y. (*), and Frisby, J. (∞) (2017) How Likely am I to Find Parking? —A Practical Model-Based Framework for Predicting Parking Availability. *Transportation Research, Part B*. (Under revision)
4. Vadlamani, S. (∞) and Lou, Y. (*) (2017) HOT lanes with a refund option II: modeling user attitudes. *Transportation Research, Part F* (Submitted)
3. Lou, Y. (*), Archer, M. (∞), and Vadlamani, S. (∞) (2017) HOT lanes with a refund option I: a stated preference survey of the Phoenix metropolitan area. *Transportation Research, Part F* (Submitted)
2. Li, P. (∞) and Lou, Y. (*) (2017) Impacts of traffic signal controls on the performance of a distributed traffic monitoring system using V2V

- communications. (to be submitted to International Journal of Intelligent Transportation Systems)
1. Xiao, J. ^(∞) and Lou, Y. ^(*) (2017) Comparative analysis of parking searching strategies for individual drivers. (to be submitted to Transportation Research Record: the Journal of Transportation Research Board)

Refereed Conference Papers

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21. Clark, R. ^(*), Kaw, A., Lou, Y., Scott, A., and Besterfield-Sacre, M. (2017) Blended vs. Flipped Teaching: One Course – Three Engineering Schools. *2017 ASEE Annual Conference and Exposition*, Columbus, OH, June 2017.
20. Xiao, J. ^(∞), Lou, Y. ^(*), and Frisby, J. ^(∞) (2017) How likely am I to find parking? – Stochastic models parking processes and probabilistic estimation of parking availability. *2017 Transportation Research Board Annual Meeting Compendium of Papers, 17-04956*, Washington D.C., January 2017.
19. Vadlamani, S. ^(∞) and Lou, Y. ^(*) (2017) Attitudes toward HOT lanes with a refund option. *2017 Transportation Research Board Annual Meeting Compendium of Papers, 17-02523*, Washington D.C., January 2017.
18. Kaw, A. ^(*), Lou, Y., Scott, A., and Miller, R (2016) Building a concept inventory for numerical methods: a chronology. *2016 ASEE Annual Conference and Exposition*, New Orleans, LA, June 2016.
17. Lou, Y. ^(*), Archer, M. ^(∞), Vadlamani, S. ^(∞) (2016) HOT Lanes with refund options: Stated-preference survey of Phoenix metropolitan area. *2016 Transportation Research Board Annual Meeting Compendium of Papers, 16-1998*, Washington D.C., January 2016.
16. Vadlamani, S. ^(*)^(∞), Reyna, J. ^(∞), a Chester, M., and Lou, Y. (2016) Opportunities for reducing emissions from vehicle idling and customs processing at the US-Mexico border. *2016 Transportation Research Board Annual Meeting Compendium of Papers, 16-3965*, Washington D.C., January 2016.
15. Hong, X. ^(*), Lou, Y., Kuai, M., and Wang, S. (2015) Quantify self-organized storage capacity in supporting infrastructure-less transportation operation, *MSCC '15 Proceedings of the Second Workshop on Mobile Sensing, Computing and Communication*, 16-18, Hangzhou, China, June 2015.
14. Moynihan, G. ^(*), Lou, Y., Fonseca, D., and Gurupackiam, S. (2013) Design of a demand forecasting module for contraflow evacuation planning, *Proceedings of the 2013 International Annual Conference of the American Society for Engineering Management*, Minneapolis, MN., October 2-5, 2013.
13. Mehta, G. ^(∞) and Lou, Y. ^(*) (2013) Safety performance function calibration and development for the state of Alabama: two-lane two-way rural roads and four-lane divided highways. *Transportation Research Board 92nd Annual Meeting Compendium of Papers DVD*, Paper No. 13-4221, Washington D.C., USA.
12. Green, F. ^(∞), Lou, Y. ^(*), and Jones, S. (2013) Investment practices of transit service providers in land development. *Urban Public Transportation Systems 2013: Proceedings of the 3rd International Conference on Urban Transportation Systems*, November 17-20, 2013, Paris, France.
11. Kulshrestha, A., Lou, Y. and Yin, Y. ^(*) (2012) Pick-up locations and bus allocation for transit-based evacuation planning with demand uncertainty. *Transportation Research Board 91st Annual Meeting Compendium of Papers DVD*, Paper No. 12-2941, Washington D.C., USA.
10. Lou, Y. ^(*) and Zhang, L. (2011) Defending transportation networks against random and targeted attacks. *Transportation Research Board 90th Annual Meeting Compendium of Papers DVD*, Paper No. 11-2219, Washington D.C., USA.

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Author(∞)= Student / Postdoc
Coauthor

9. Michalaka, D., Lou, Y. and Yin, Y. (*) (2011) Proactive and robust dynamic pricing strategies for high-occupancy/toll (HOT) lanes. *Transportation Research Board 90th Annual Meeting Compendium of Papers CD-ROM*, Paper No. 11-2617, Washington D.C., USA.
8. Zhang, L., Yin, Y. (*) and Lou, Y. (2010) Robust signal timing for arterials under day-to-day demand variations. *Transportation Research Board 89th Annual Meeting Compendium of Papers DVD*, Paper No. 10-3181, Washington D.C., USA.
7. Lou, Y. (2009) A unified framework of proactive self-learning dynamic pricing for high-occupancy/toll lanes. *2nd International Symposium on Freeway and Tollway Operations*, Honolulu, HI, USA.
6. Lou, Y., Yin, Y. (*) and Lawphongpanich, S. (2009) Freeway service patrol deployment planning for incident management and congestion mitigation. *The 18th International Symposium on Transportation and Traffic Theory*, Hong Kong, China.
5. Lou, Y., Yin, Y. (*) and Lawphongpanich, S. (2009) A robust approach to discrete network designs with demand uncertainty. *Transportation Research Board 88th Annual Meeting Compendium of Papers DVD*, Paper No. 09-2138, Washington D.C., USA.
4. Lou, Y. and Yin, Y. (*) (2008) A decomposition scheme for estimating dynamic origin-destination flows on actuation-controlled signalized arterials. *The 10th International Conference on Applications of Advanced Technologies in Transportation Proceedings CD*, Athens, Greece.
3. Lou, Y. and Yin, Y. (*) (2007) Optimal dynamic pricing strategies for high-occupancy/toll lanes. *Proceedings of 2007 World Conference on Transport Research Society*, Berkeley, CA, USA.
2. Yin, Y. (*) and Lou, Y. (2006) Dynamic tolling strategies for managed lanes. *Transportation Research Board 86th Annual Meeting Compendium of Papers CD-ROM*, Paper No. 07-1806, Washington D.C., USA.
1. Lou, Y. and Yin, Y. (*) (2006) Real-time estimation of origin-destination flows for actuation-controlled intersections. *Proceedings of the 9th IEEE International Conference on Intelligent Transportation Systems*, 827-832, Toronto, Canada.

Book Chapters

1. Zheng, Q. (*), Lou, Y., and Pardalos, P. (2010) Economics of Gambling on Sports: A Multistage Stochastic Programming Approach to American Jai Alai Gambling Strategies, 199-215, in *Optimal Strategies in Sports Economics and Management* (S. Butenko, Jamie, G-L. and Pardalos, P. eds), 1st Edition, Springer, USA.

Technical Papers

12. Lou, Y. and Li, P. (∞) (2017) *Distributed Traffic Monitoring and Prediction with Vehicle-to-Vehicle Communication*. National Transportation Center at the University of Maryland, December 2017.
11. Lou, Y. and Vadlamania, S. (∞) (2017) *The Potential of Employing Connected Vehicle Technologies for Demand Management of Managed Lane Facilities*. National Transportation Center at the University of Maryland, December 2017.
10. Reyna, J. (*)(∞), Vadlamania, S. (∞), Chester, M., and Lou, Y. (2015) *Prioritizing Emissions Mitigation Strategies at the Mariposa Port of Entry*. Environmental Protection Agency, November 2015.

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Author(∞)= Student / Postdoc
Coauthor

9. Lou, Y. (*) and Archer, M. (∞) (2015) *High Occupancy Toll Lanes with a Refund Option: A Stated Preference Survey of the Phoenix Metropolitan Area*. University Transportation Center at Maryland, March 2015.
8. Laval, J. (*), Yin, Y., Lou, Y., and Cho, H. (2015) *Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes*. Southeastern Transportation Research, Innovative, Development and Education Center, University of Florida, December 2014.
7. Lou, Y. (*), Fonseca, D., Moynihan, G., Gurupackiam, S., and Li, P. (∞) (2013) *Contraflow Evacuation Planning for I-65 in Alabama*. University Transportation Center for Alabama, University of Alabama, UTCA Research Report 11402, December 2013.
6. Lou, Y. (*), Lindly, J., Jones, S., and Green, F. (∞) (2013) *Role of Transit Service Providers in Land Development*. University Transportation Center for Alabama, University of Alabama, UTCA Research Report 11103, August 2013.
5. Lindly, J. (*), Lou, Y., Walsh, J., Addy, S., Ijaz, A. (2012) *Revenue Enhancement Alternatives from the Alabama Department of Transportation*. University Transportation Center for Alabama, University of Alabama, UTCA Research Report 11403, October 2012.
4. Parrish, A. (*), Brown, D., Smith, R., Lou, Y., and Parton, J. (2012) *Alabama Observational Survey Plan for Occupant Restraint Use 2013: Sampling, Data Collection and Estimation Plan*. National Highway Traffic Safety Administration Traffic Safety Programs, September 2012.
3. Turner, S. (*), Jones, S., Lou, Y., Brown, D., and Smith, R. (2012) *Implementation of the AASHTO Highway Safety Manual*. University Transportation Center for Alabama, University of Alabama, UTCA Research Report 10104, August 2012.
2. Lou, Y. (*), Yin, Y. and Lawphongpanich, S. (2008) *Optimal deployment strategies of freeway service patrol for incident management*. Southeastern Transportation Research Center, University of Tennessee, STC Research Report 07-UF-R-S2, August 2008.
1. Herrera, J. (*), Amin, S., Bayen, A., Madanat, S., Zhang, M., Nie, Y., Qian, Z., Lou, Y. and Yin, Y. (2007) *Dynamic estimation of OD matrices for freeways and arterials*. University of California, Berkeley: Institute of Transportation Studies, California PATH Program, PATH Research Report UCB-ITS-PRR-2007, November 2007.

PRESENTATIONS**Invited Presentations**

A unified framework of proactive self-learning dynamic pricing for high-occupancy/toll lanes.

9.
 - o Department of Industrial Engineering and Management, Beijing University, Beijing, China, June 2014.
8.
 - o *Workshop on Advances in Traffic Modeling and Control*, Tongji University, Shanghai, China, August 2011.

Transportation systems analysis and network modeling: implications of uncertainties, social behaviors, and technologies.

7.
 - o Department of Civil Engineering and Engineering Mechanics, University of Arizona, Tucson, AZ, April 2014.
6.
 - o School of Transportation Engineering, Tongji University, Shanghai, China, March 2013.

A boundedly rational user equilibrium model for the traffic assignment problem.

5.
 - o School of Transportation Engineering, Tongji University, Shanghai, China, May 2010.

4. o Department of Civil Engineering, Tsinghua University, Beijing, China, June 2010.
3. o School of Economics and Management, Beihang University, Beijing, China, June 2010.
2. o School of Transportation Engineering, Beijing Jiaotong University, Beijing, China, June 2010.
1. o Engineering School, Beijing University, Beijing, China, June 2010.

Invited Conference Presentations

National or International Conferences

21. A distributed framework for network-wide traffic monitoring and platoon information aggregation using V2V communications. *Institute for Operations Research and the Management Sciences Annual Meeting, Nashville, TN, November 2016*
20. How likely am I to find parking? – Modeling of stochastic parking processes and probabilistic estimation of parking availability. *Institute for Operations Research and the Management Sciences Annual Meeting, Nashville, TN, November 2016*
19. Distributed Traffic Monitoring with Vehicle-to-Vehicle Communications. *The 15th International Conference of Chinese Transportation Professionals, Beijing, China, July 2015.*
18. High occupancy toll lanes with a refund option: A survey of the Phoenix metropolitan area. *2015 International Symposium on Travel Demand Management, Tucson, AZ, April 2015.*
17. Multi-objective optimization for scheduling of contraflow evacuation. *Institute for Operations Research and the Management Sciences Annual Meeting, San Francisco, CA, November 2014.*
16. Real-time pricing of managed lanes with refund option. *Institute for Operations Research and the Management Sciences Annual Meeting, Minneapolis, MN, October 2013.*
15. Determination of the onset and duration of contraflow operations under uncertainties. *Institute for Operations Research and the Management Sciences Annual Meeting, Phoenix, AZ, October 2012.*
14. Calibration efforts and SPF development in Alabama. *NCHRP 17-50 Lead State Initiative for Implementing the Highway Safety Manual, Baltimore, MD, August 2012.*
13. Stochastic user equilibrium with bounded perception errors. *Institute for Operations Research and the Management Sciences Annual Meeting, Charlotte, NC, November 2011.*
12. Multiclass fuzzy user equilibrium with endogenous membership functions and risk-taking behaviors. *The 11th International Conference of Chinese Transportation Professionals, Nanjing, China, August 2011.*
11. A unified framework of proactive self-learning dynamic pricing for high-occupancy/toll lanes. *Innovations in Pricing of Transportation Systems: Workshop and Conference, Orlando, FL, May 2010, Lectern*
10. Congestion pricing in stochastic networks with users' perception. *Institute for Operations Research and the Management Sciences Annual Meeting, San Diego, CA, October 2009.*
9. Robust congestion pricing with boundedly rational user equilibrium. *Institute for Operations Research and the Management Sciences Annual Meeting, Washington DC, October 2008.*
8. Optimal deployment strategies of freeway service patrols for incident management. *Institute for Operations Research and the Management Sciences Annual Meeting, Seattle, WA, November 2007.*
7. Optimal dynamic pricing strategies for high-occupancy/toll lanes. *Institute for Operations Research and the Management Sciences Annual Meeting, Seattle, WA, November 2007.*
6. Dynamic tolling strategies for managed lanes. *Institute for Operations Research and the Management Science Annual Meeting, Pittsburgh, PA, November 2006.*

Regional or Local Professional Meetings

5. Advanced parking management with smart-phone apps. *The 65th Arizona Roads and Streets Conference, Tucson, AZ, April 2016.*
4. Distributed traffic monitoring with vehicle-to-vehicle communications. *The 64th Arizona Roads and Streets Conference, Tucson, AZ, April 2015.*

3. An evacuation planning tool for contraflow scheduling. *Intelligent Transportation Society of Arizona 2014 Annual Conference*, Mesa, AZ, September 2014.
2. Sustainability in transportation: A multi-faceted concept. *Alabama Section Institute of Transportation Engineers Spring Meeting*, Tuscaloosa, AL, March, 2011
1. A prospect-based user equilibrium model with endogenous reference points. *Institute for Operations Research and the Management Sciences Southern Regional Meeting*, Huntsville, AL, April 2010.

Peer-Reviewed Conference Presentations

19. Blended vs. Flipped Teaching: One Course – Three Engineering Schools. *2017 ASEE Annual Conference and Exposition*, Columbus, OH, June 2017, Poster.
18. Attitudes toward HOT lanes with a refund option. *Transportation Research Board 95th Annual Meeting*, Washington D.C., January 2017, Poster.
17. Building a concept inventory for numerical methods: a chronology. *2016 ASEE Annual Conference and Exposition*, New Orleans, LA, June 2016, Poster.
16. Distributed Framework for Network-wide Traffic Monitoring and Platoon Information Aggregation Using V2V Communications. *Transportation Research Board 95th Annual Meeting*, Washington D.C., January 2016, Lectern.
15. Opportunities for Reducing Emissions from Vehicle Idling and Customs Processing at the US-Mexico Border. *Transportation Research Board 95th Annual Meeting*, Washington D.C., January 2016, Poster.
14. HOT Lanes with a Refund Option: A Stated Preference Survey of the Phoenix Metropolitan Area. *Transportation Research Board 95th Annual Meeting*, Washington D.C., January 2016, Poster.
13. An Integer Multi-Objective Optimization Model and an Enhanced Non-Dominated Sorting Genetic Algorithm for the Contraflow Scheduling Problem, *The 15th COTA International Conference of Transportation Professionals*, Beijing, China, July 2015, Lectern.
12. Empirical Analysis of Students' Usage of School Bus Seat Belts: Findings from the Alabama Pilot Project. *Transportation Research Board 92nd Annual Meeting*, Washington D.C., January 2013, Poster.
11. Safety performance function calibration and development for the state of Alabama: two-lane two-way rural roads and four-lane divided highways. *Transportation Research Board 92nd Annual Meeting*, Washington D.C., January 2013, Poster.
10. Pick-up locations and bus allocation for transit-based evacuation planning with demand uncertainty. *Transportation Research Board 91st Annual Meeting*, Washington D.C., January 2012, Poster.
9. Defending transportation networks against random and targeted attacks. *Transportation Research Board 90th Annual Meeting*, Washington D.C., January 2011, Poster.
8. Robust signal timing for arterials under day-to-day demand variations. *Transportation Research Board 89th Annual Meeting*, Washington D.C., January 2010, Poster.
7. Freeway service patrol deployment planning for incident management and congestion mitigation. *The 18th International Symposium on Transportation and Traffic Theory*, Hong Kong, China, July 2009, Poster.
6. A unified framework of proactive self-learning dynamic pricing for high-occupancy/toll lanes. *2nd International Symposium on Freeway and Tollway Operations*, Honolulu, HI, June 2009.
5. A robust approach to discrete network designs with demand uncertainty. *Transportation Research Board 88th Annual Meeting*, Washington D.C., January 2009.
4. A hierarchical framework for congestion pricing of transportation networks. *Transportation Research Board 88th Annual Meeting*, Washington D.C., January 2009.
3. Robust congestion pricing with boundedly rational user equilibrium. *Transportation Research Board 88th Annual Meeting*, Washington D.C., January 2009.
2. Dynamic tolling strategies for managed lanes. *Transportation Research Board 86th Annual Meeting*, Washington D.C., January 2007, Poster.
1. Real-time estimation of origin-destination flows for actuation-controlled intersections. *The 9th IEEE International Conference on Intelligent Transportation Systems*, Toronto, Canada, September 2006.

Contributed Conference Presentations

9. Opportunities to reduce vehicle emissions at land border crossings between the US and Mexico: Case study at the Mariposa Port of Entry. *2017 Joint Conference of International Society for Industrial Ecology and International Symposium on Sustainable Systems and Technology*, Chicago, June 2017, Poster.
8. Improving and assessing student learning in an inverted STEM classroom setting. *American Association for the Advancement of Science Symposium on Envisioning the Future of Undergraduate STEM Education: Research and Practice*, Washington, D.C., April 2016, Poster.
7. A distributed framework for network-wide traffic monitoring and platoon information aggregation with V2V communications. *ITS Arizona 23rd Annual Conference*, Mesa, AZ, September, 2016, Lectern.
6. Improving traffic mobility using connected vehicle technologies: A new algorithm for traffic detection and information aggregation. *2015 ITE/IMS A Spring Conference*, Mesa, AZ, February 2015, Lectern.
5. High occupancy toll lanes with a refund option: A survey of the Phoenix metropolitan area. *2015 ITE/IMS A Spring Conference*, Mesa, AZ, February 2015, Lectern.
4. Exploring properties of boundedly rational user equilibrium flow distributions. *Institute for Operations Research and the Management Sciences Annual Meeting*, Austin, TX, November 2010, Lectern.
3. A robust approach to discrete network designs with demand uncertainty. *2009 National Science Foundation, Division of Civil, Mechanical and Manufacturing Innovation, Research and Innovation Conference*, Honolulu, HI, July 2009, Poster.
2. Freeway service patrol deployment planning for incident management and congestion mitigation. *Transpo 2008*, Orlando, FL, September 2008, Poster.
1. Dynamic tolling strategies for managed lanes. *Institute of Transportation Engineers District 10 Annual Meeting*, Orlando, FL, November 2007, Poster.

RESEARCH PROJECTS**Current Projects**

1. Lou, Y. (8/1/2016 – 7/31/2018) EAGER: A Living Lab for Smartphone-Based Parking Management Services. *National Science Foundation*. \$149,999
2. Lou, Y. (8/1/2017 – 7/31/2018) I-10 Freight Super Corridor Operational Safety and Efficiency, Phase II. *Arizona Tri-University Transportation Research Center Pilot Research Portfolio*. \$30,000
3. Lou, Y. (8/1/2016 – 12/31/2017) I-10 Freight Super Corridor Operational Safety and Efficiency, Phase I. *Arizona Tri-University Transportation Research Center Pilot Research Portfolio*. \$45,000
4. Lou, Y. (09/2014 – 08/2018) Collaborative Research: Modeling and Analysis of Advanced Parking Management for Traffic Congestion Mitigation. *National Science Foundation*. \$170,000

Completed Projects

1. Lou, Y. (01/2015 – 12/2017) Distributed Traffic Monitoring and Prediction with Vehicle-to-Vehicle Communications. *University Transportation Center at Maryland*. \$34,798
2. Lou, Y. (01/2016 – 09/2017) The Potential of Employing Connected Vehicle Technologies for Demand Management of Managed Lane Facilities. *University Transportation Center at Maryland*. \$31,037
3. Lou, Y. and Zhou, X. (7/1/2016 – 6/30/2017) Impacts of Traffic Signal Controls on Distributed Traffic Monitoring and Traffic State Prediction. *Center for Safety and Operations of Large-Area Rural/Urban Intermodal Systems, University Transportation Center at University of Nevada, Reno*. \$55,639 with Lou's portion of \$44,511
4. Lou, Y. (08/2015 – 08/2016) Improving and Assessing Student Learning in an Inverted STEM Classroom Setting (Year 3). *National Science Foundation*. \$59,069
5. Lou, Y. (08/2014 – 08/2015) Improving and Assessing Student Learning in an Inverted STEM Classroom Setting (Year 2). *National Science Foundation*. \$50,565
6. Lou, Y. (02/2014 – 12/2015) Behavioral Study for Managed Lane Pricing with Refund Option. *National Transportation Center at Maryland*. \$40,000

7. Chester, M. and Lou, Y. (02/2014 – 07/2015) Prioritizing Emissions Mitigation Strategies at the Mariposa Point of Entry. *Environmental Protection Agency*. \$67,341 with Lou's portion of \$33,657
8. Parrish, A., Stricklin, R., Brown, D., Lou, Y., and Parton, J. (04/2013 – 09/2013) Evaluation of "Click It or Ticket." *Alabama Department of Economic and Community Affairs*. \$185,761 with Lou's portion of \$3,332
9. Lou, Y. and Jones, S. (01/2013 – 08/2015) Rail Highway At-Grade Crossing Prioritization and Ranking Program Analysis. *Alabama Department of Transportation*. \$234,419 with Lou's Portion of \$205,373
10. Turner, D., Jones, S., and Lou, Y. (01/2013 – 12/2013) Short Term, Quick Turnaround Services to Facilitate Safety Research & Implementation. *Alabama Department of Transportation*. \$69,727 with Lou's portion of \$3,300
11. Lou, Y. (07/2012 – 12/2013) Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes. *Southeastern Transportation Research, Innovation, Development and Education Center*. \$59,541
12. Lou, Y. (09/2012) Subcontract: Data and Information Technology Support for Alabama Traffic Safety Programs through CARE and eCite. *Alabama Department of Economic and Community Affairs*. \$4,254
13. Lou, Y. (06/2012 – 07/2012) Revision of Observation Sites for 2012 Alabama Occupant Restraint Survey Design. *Alabama Department of Public Health*. \$2,364
14. Jones, S. and Lou, Y. (03/2012 – 12/2013) Bridge Rail Safety Analysis, *Alabama Department of Transportation*. \$129,485 with Lou's portion of \$71,791
15. Jones, S. and Lou, Y. (01/2012 – 12/2012) ALDOT ITS Strategic Vision. *University Transportation Center for Alabama*. \$37,266 with Lou's portion of \$1,666
16. Lou, Y. (11/2011 – 12/2011) Selection of Observation Sites for 2012 Alabama Occupant Restraint Survey Design. *Alabama Department of Public Health*. \$5,666
17. Lindly, J., Lou, Y., Addy, S. and Ijaz, A. (09/2011 – 07/2012) Revenue Enhancement Alternatives for the Alabama Department of Transportation. *Alabama Department of Transportation*. \$132,739 with Lou's portion of \$36,949
18. Lou, Y., Fonseca, D., Moynihan, G. and Gurupackiam, D. (08/2011 – 08/2012) Contraflow Evacuation Planning for I-65 in Alabama. *Alabama Department of Transportation*. \$109,214 with Lou's portion of \$46,816
19. Jones, S., Lindly, J., Lou, Y. and Anderson, M. (01/2011 – 12/2012) Alabama Public Transportation Strategic Vision. *University Transportation Center for Alabama*. \$150,264 with Lou's portion of \$16,955
20. Lou, Y., Jones, S. and Lindly, J. (01/2011 – 06/2012) Role of Transit Service Providers in Land Development. *University Transportation Center for Alabama*. \$58,855 with Lou's portion of \$36,130
21. Turner, D., Jones, S., Lou, Y., Brown, D. and Smith, R. (11/2010 – 04/2012) Scoping Study for Implementation of the Highway Safety Manual in Alabama. *Alabama Department of Transportation*. \$301,279 with Lou's portion of \$49,520
22. Lindly, J., Lou, Y., Addy, S. and Ijaz, A. (01/2010 – 06/2011) Alternative Future Revenue Sources for Alabama Highways. *University Transportation Center for Alabama*. \$92,600 with Lou's portion of \$32,540

TEACHING ACTIVITIES

MENTORING

Mentored Postdoctoral Researchers

- Ms Jing Li, Ph.D., 2013, The University of Alabama

Mentored Ph.D. Students (Graduated)

Chair of Committee

- Mr. Peiheng Li, Ph.D. (December 2017). "A Framework for a Self-Sustained Traffic Operations System Using V2V Communications" School of Sustainable Engineering and The Built Environment, Arizona State University. Spring 2011 – December 2017.
- Mr. Gaurav Mehta, Ph.D. (December 2014) "Analyzing Crash Frequency and Severity Data Using Novel Techniques." Department of Civil, Construction, and Environmental Engineering, The University of Alabama, Spring 2010 – December 2014.

Member of Committee

- Mr. Venu Madhav Garikapati, Ph.D. (December 2014) “A Tour Characterization and Vehicle Type Choice Model System for Activity-Based Travel Forecasting” School of Sustainable Engineering and The Built Environment, Arizona State University, Fall 2013 – December 2014.
- Mr. Moses Tefe, Ph.D. (August 2012) “Application of Multi-Criteria Decision Making to Sustainable Urban Transportation Planning in Developing Countries: A Case study of Accra, Ghana.” Department of Civil, Construction, and Environmental Engineering, The University of Alabama, Summer 2010 – Summer 2012.
- Ms Rong Li, Ph.D. (August 2012) “Routing Models in Public Safety and Health Care.” Department of Information Systems, Statistics, and Management Science, Fall 2011 – Summer 2012.
- Ms Elsa Tedla, Ph.D. (August 2013) “School Bus Seat Belt Study.” Department of Civil, Construction, and Environmental Engineering, The University of Alabama, Summer 2010 – Summer 2013.

Mentored Ph.D. Students (Current)Chair of Committee

- Ms Sravani Vadlamani, Ph.D. student. School of Sustainable Engineering and The Built Environment, Arizona State University. Research topic: Managed lanes with refund option. Expected graduation date: Summer 2018.
- Mr. Jun Xiao, Ph.D student. Civil, Sustainable, and Environmental Engineering, Arizona State University. Research topic: Modeling and analysis of advanced parking management for traffic congestion mitigation. Expected graduation date: December 2018.

Member of Committee

- Mr. Jiangtao Liu, Ph.D. student. Civil, Sustainable, and Environmental Engineering, Arizona State University. Research topic: Bounded Rational Agents and Dynamic Traffic Assignment. Expected graduation date: December 2017.

Mentored M.S. / M.S.E. Students (Graduated)Chair of Committee

- Mr. Alexander Arveson (August 2016) M.S.E. School of Sustainable Engineering and The Built Environment, Arizona State University
- Ms Melissa Archer (April 2015) M.S. “Behavioral study for managed lane pricing with refund option.” School of Sustainable Engineering and The Built Environment, Arizona State University
- Ms Tate Jesen (August 2014) M.S.E. School of Sustainable Engineering and The Built Environment, Arizona State University
- Ms Frances Green, M.S. (August 2012) “Role of Transit Service Providers in Land Development.” Department of Civil, Construction, and Environmental Engineering, The University of Alabama
- Mr. Mohammad Miralinaghi, M.S. (August 2012) “Refuelling Station Location Problem for Renewable Energy in a Transportation Network.” Department of Civil, Construction, and Environmental Engineering, The University of Alabama

Member of Committee

- Mr. Xiao Zhang (May 2017) M.S.E. School of Sustainable Engineering and The Built Environment, Arizona State University
- Ms Susan Elizabeth Chambers (December 2016) M.S. “Flashing yellow arrow traffic signal operation: a clinical methodology for field conversion.” School of Sustainable Engineering and The Built Environment, Arizona State University
- Ms Nana Zhu (August 2016) M.S. “Park-and-ride facilities design for special events using space-time network models.” School of Sustainable Engineering and The Built Environment, Arizona State University
- Mr. Shuyao Hong (August 2016) M.A. “Spatial optimization of alternative fuel vehicle’s refueling stations: a threshold coverage flow-refueling location model to build a critical mass of infrastructure.” School of Geographical Sciences & Urban Planning, Arizona State University
- Ms Qinyue Pan, M.S. (August 2011) “Using Time Geography to Geovisualize Variation in Work-Related Travel Patterns by Gender and Race,” Department of Geography, The University of Alabama

Mentored Undergraduate Students (Research)Chair of Committee

- Mr. Christopher Fellows (Fall 2015 – August 2016), Honors student. Honor's thesis: Traffic analysis of Rural Road and Spence Avenue intersection. School of Sustainable Engineering and The Built Environment, Arizona State University
- Ms Hunter Venne (Fall 2015 – Spring 2016), Honors student. Honor's thesis: The evolution of women in educational and professional engineering environments. School of Sustainable Engineering and The Built Environment, Arizona State University
- Ms Jazlyn Acosta (Fall 2015 – Spring 2016), Honors student. Honor's thesis: The evolution of women in educational and professional engineering environments. School of Sustainable Engineering and The Built Environment, Arizona State University
- Mr. Nathan Holt (Fall 2015) Honors Contract, Arizona State University
- Mr. Trey Ingram (Fall 2015) Honors Contract, Arizona State University
- Mr. Andrew Dopilka (Fall 2014) Honors Contract, Arizona State University
- Mr. Thai Dao (Fall 2014) Honors Contract, Arizona State University
- Mr. Nathan Schmidt (Spring 2014) Honors Contract, Arizona State University
- Ms Hannah Housenga (Spring 2014) Honors Contract, Arizona State University
- Ms Kale Aziz (Spring 2014) Honors Contract, Arizona State University
- Ms Ashley Archambault (Spring 2014) Honors Contract, Arizona State University
- Mr. Robert Tyler Fields (Summer 2012 – Fall 2012) National Science Foundation Research Experience for Undergraduate Students, The University of Alabama
- Mr. Charles Phillips (Spring 2012 – Spring 2013) Computer-Based Honors Program Research Experience, The University of Alabama
- Ms Emma Whitaker (Spring 2012 – Spring 2013) Computer-Based Honors Program Research Experience, The University of Alabama
- Mr. Paul McKelvey (Spring 2012 – Fall 2012) Computer-Based Honors Program Research Experience, The University of Alabama
- Ms Samantha Gaffney (Spring 2012) Computer-Based Honors Program Research Experience, The University of Alabama
- Mr. Brian Wysock (Spring 2010 – Summer 2011) National Science Foundation Research Experience for Undergraduate Students. Research topic: "Evaluation of ramp metering for Interstate 65 in Montgomery, Alabama," The University of Alabama
- Mr. Jon Lauer (Spring 2010) Computer-Based Honors Program Research Experience, The University of Alabama

Member of Committee

- Mr. Mitchell Jones (April 2015), Honors student. Honor's thesis: A mid-block solution to safer bicyclist and pedestrian railroad crossings. Mechanical Engineering, Arizona State University

Mentored Student Honors and AwardsGraduate Students

- Mr. Peiheng Li, *2nd Place of Student Paper Award*, "A Distributed Framework for Network-Wide Traffic Monitoring and Platoon Information Aggregation Using V2V Communications", 2015 ITS Arizona 22nd Annual Conference, Mesa, AZ, September 2015.
- Ms Frances Green, *Outstanding Thesis Award*, "Role of Transit Service Providers in Land Development", Department of Civil, Construction, and Environmental Engineering, The University of Alabama, 2013
- Ms Frances Green, *Winner of Student Research Competition*, Research topic: "Role of Transit Service Providers in Land Development", University Transportation Center for Alabama, 2012
- Mr. Gaurav Mehta, *Winner of Student Research Competition*, Research topic: "Evaluation and Calibration of Highway Safety Manual Base Safety Performance Function of Two-Lane Rural Highways for the State of Alabama", University Transportation Center for Alabama, 2011
- Mr. Mohammad Miralinaghi, *Winner of Student Research Competition*, Research topic: "Multiclass Fuzzy User Equilibrium with Endogenous Membership Functions and Risk-Taking Behaviors," University Transportation Center for Alabama, 2011

- Ms Frances Green, *University Transportation Center for Alabama Student of the Year*, Council of University Transportation Centers, 2011
- Mr. Gaurav Mehta, *Winner of Student Research Competition*, Research topic: “Factors Influencing Students’ Usage of School Bus Seat Belts: An Empirical Analysis of the Alabama Pilot Project,” University Transportation Center for Alabama, 2010

Undergraduate Students

- Mr. Brian Wysock, *Winner of Student Research Competition*, Research topic: “Evaluation of ramp metering for Interstate 65 in Montgomery, Alabama,” University Transportation Center for Alabama, 2010

COURSES TAUGHT

- Introduction to Transportation Engineering (2009 – 2016)
Average overall course rating: 3.90/5.00, average overall instructor rating: 4.05/5.00
- Transportation Systems Analysis (2010 – 2012)
Average overall course rating: 4.23/5.00, average overall instructor rating: 4.46/5.00
- Transportation Demand and Network Modelling (2010 – 2012, 2015)
Average overall course rating: 4.62/5.00, average overall instructor rating: 4.63/5.00
- Transportation Operations (2013 – 2015)
Average overall course rating: 4.15/5.00, average overall instructor rating: 4.28/5.00
- Numerical Methods for Engineers (2014 – 2017)
Average overall course rating: 3.81/5.00, average overall instructor rating: 4.12/5.00

PROFESSIONAL ACTIVITIES AND SERVICES

SERVICES TO THE PROFESSION

Editorial Service

Member of Editorial Boards

- Editorial Board Member, International Journal of Applied Management Science, 2009-present, Number of papers reviewed: 7
- Area Editor, Proceedings of the 2015 COTA International Conference of Transportation Professionals (published by ASCE), 2015, Number of papers handled: 19
- Associate Editor, Proceedings of the International IEEE Conference on Intelligent Transportation Systems, 2012, Number of papers handled: 8
- Area Editor, Proceedings of the 2012 COTA International Conference of Transportation Professionals (published by ASCE), 2012, Number of abstracts reviewed: 37; Number of papers handled: 20; Number of papers edited: 28
- Associate Editor, Proceedings of the International Conference of Chinese Transportation Professionals (published by ASCE), 2009 – 2011, Number of abstracts reviewed: 69; Number of papers reviewed: 46; Number of papers edited: 8; Number of papers handled: 37

Conference Service

International / National Conferences Committees

- Cluster Chair, Institute for Operations Research and the Management Sciences Annual Meeting, Houston, TX, November 2017
- Scientific Committee, The 1st Institute for Operations Research and the Management Sciences Transportation Sciences and Logistics Conference, Chicago, July 2017
- Cluster Chair, Institute for Operations Research and the Management Sciences Annual Meeting, Nashville, TN, November 2016
- Technical Committee Member, The 14th International HOV, HOT and Managed Lanes Conference, Oakland, CA, June 2012

- Organizing Committee Member, Innovations in Pricing of Transportation Systems: Workshop and Conference, Orlando, FL, May 2010

International / National Conference Sessions Organized

- Advancements in Modeling Traffic Flow, Institute for Operations Research and the Management Sciences Annual Meeting, Nashville, TN, November 2016
- Evolution of Network-wide Traffic Dynamics, Institute for Operations Research and the Management Sciences Annual Meeting, Nashville, TN, November 2016
- Applications of Optimization and Control Theory in Traffic Management, Institute for Operations Research and the Management Sciences Annual Meeting, Nashville, TN, November 2016
- Modeling Information for Intelligent Transportation Systems, Institute for Operations Research and the Management Sciences Annual Meeting, Nashville, TN, November 2016
- Innovations in Connected and Autonomous Vehicles, Institute for Operations Research and the Management Sciences Annual Meeting, Nashville, TN, November 2016

International / National Conference Sessions Chaired

- Session Chair, Institute for Operations Research and the Management Science Annual Meeting, San Francisco, CA, November 2014
- Session Chair, Institute for Operations Research and the Management Science Annual Meeting, Phoenix, AZ, October 2012
- Session Chair, The 11th International Conference of Chinese Transportation Professionals, Nanjing, China, August 2011
- Session Chair, Innovations in Pricing of Transportation Systems: Workshop and Conference, Orlando, FL, May 2010
- Session Chair, Institute for Operations Research and the Management Science Annual Meeting, Seattle, WA, November 2007

Peer Reviewer and Proposal Review

Proposal Reviews

- National Science Foundation, 2014 – 2017, Number of proposals reviewed: 29
- Mountain-Plains Consortium, 2014, Number of proposals reviewed: 1
- Southeastern Transportation Research, Innovation, Development and Education Center, 2013, Number of proposals reviewed: 1
- National Center for Intermodal Transportation for Economic Competitiveness, 2012 – 2013, Number of proposals reviewed: 6
- NEXTRANS USDOT Region V Regional University Transportation Center, 2010, Number of proposals reviewed: 1
- Transportation Research Center for Livable Communities, 2015, Number of proposals reviewed: 1
- University of California Transportation Center, 2013, Number of proposals reviewed: 1

Journal Peer-Review Service

- ASCE Journal of Transportation Engineering, 2013 – 2016, Number of papers reviewed: 4
- ASCE Journal of Urban Planning and Development, Special issue on “Challenges in Transportation Planning for Asian Cities”, 2008, Number of papers reviewed: 1
- Automatica, 2010, Number of papers reviewed: 1
- Computational Optimization and Applications, 2014, Number of papers reviewed: 1
- Computer-Aided Civil and Infrastructure Engineering, 2012, Number of papers reviewed: 1
- European Journal of Transportation and Infrastructure Research, 2010, Number of papers reviewed: 1
- IATSS Research, 2013, Number of papers reviewed: 1
- IEEE Transactions on Intelligent Transportation Systems, 2010 – 2014, Number of papers reviewed: 3
- IET Intelligent Transport Systems, 2011 – 2013, Number of papers reviewed: 8
- International Journal of Sustainable Transportation, 2012, Number of papers reviewed: 1
- International Journal of ITS Research, 2007, Number of papers reviewed: 1

- International Journal of Transportation, Special issue on “Urban Mobility and Modal Shift towards Public Transport”, 2013, Number of papers reviewed: 1
- Journal of Advanced Transportation, 2010 – 2013, Number of papers reviewed: 6
- Journal of Applied Mathematics, 2013, Number of papers reviewed: 1
- Journal of Intelligent Transportation Systems, 2011 – 2016, Number of papers reviewed: 4
- Journal of Systems Science and Systems Engineering, 2012, Number of papers reviewed: 1
- Journal of Transportation Safety and Security, 2009, Number of papers reviewed: 1
- Network Spatial and Economics, 2012 – 2016, Number of papers reviewed: 5
- Transport Policy, 2011 – 2012, Number of papers reviewed: 2
- Transportation, Special issue on “Transit Planning, Operation and Management in Densely Populated Areas”, 2010, Number of papers reviewed: 1
- Transportation Research, Part A, 2012 – 2016, Number of papers reviewed: 3
- Transportation Research, Part B, 2012 – 2016, Number of papers reviewed: 6
- Transportation Research, Part C, 2011 – 2016, Number of papers reviewed: 11
- Transportation Research, Part D, 2015, Number of papers reviewed: 1
- Transportation Research, Part E, 2012, Number of papers reviewed: 1
- Transportmetrica A, 2015, Number of papers reviewed: 1

Conference Reviews

- The 89th – 97th Transportation Research Board Annual Meeting, 2010 – 2016, Number of papers reviewed: 92; Number of abstracts screened: 15
- The 22nd International Symposium on Transportation and Traffic Theory, 2016, Number of papers reviewed: 2
- American Society of Engineering Education Annual Meeting, 2013 – 2014, Number of papers reviewed: 2; Number of abstracts screened: 2
- The 14th International HOV, HOT and Managed Lanes Conference, 2012, Number of abstracts reviewed: 15
- World Conference on Transport Research, 2010, Number of papers reviewed: 1
- The 9th – 14th International IEEE Conference on Intelligent Transportation Systems, 2006 – 2011, Number of papers reviewed: 9

PROFESSIONAL SOCIETIES

- Chair, Intelligent Transportation Systems Interest Group, Transportation and Logistics Society, Institute for Operations Research and Management Sciences (2015 – 2017)
- Vice Chair, Intelligent Transportation Systems Interest Group, Transportation and Logistics Society, Institute for Operations Research and Management Sciences (2013 – 2015)
- Member, Committee on Transportation Network Modeling (ADB30), Transportation Research Board (2012 – present)
- Member, Committee on User Information Systems (AND20), Transportation Research Board (2011 – present)
- Member, Committee on Highway Safety Performance (ANB25), Transportation Research Board (2012 – 2015)
- Member, American Society for Engineering Education (2012 – present)
- Member, Institute for Operations Research and Management Sciences (2006 – present)
- Member, Transportation Research Board (2008 – present)
- Member, World Conference on Transport Research Society (2007 – 2010)
- Student Member, Institute of Transportation Engineers (2005 – 2006)

HONORS AND AWARDS

- Outstanding Area Editor Award (2015, 2012)
COTA International Conference of Transportation Professionals, Beijing, China, August 2015 and August 2012
- Pikarsky Award for Outstanding Ph.D. Dissertation in Science and Technology (2010)
Council of University Transportation Centers

- 2nd Prize of Student Paper Competition (2009)
2nd International Symposium on Freeway and Tollway Operations, Honolulu, HI, June 2009
- NSF CMMI Research and Innovation Conference Student Travel Grant (2009)
National Science Foundation, Division of Civil, Mechanical and Manufacturing Innovation, sponsored by
Kansas State University
- Frankee Hellinger Graduate Scholarship (2008)
Women's Transportation Seminar, Central Florida Chapter
- 1st Prize of Student Poster/Presentation Competition (2007)
Institute of Transportation Engineers District 10 Annual Meeting, November 2007
- Graduate Student Travel Grant (2007, 2009)
Graduate Student Council, University of Florida
- Outstanding International Student Award (2007, 2008)
College of Engineering, University of Florida
- Certificate of Outstanding Academic Achievement (2006, 2007, 2008)
International Center, University of Florida
- "WuSi" Scholarship (2003, 2004, 2005)
Beijing University, P.R. China
- Outstanding Student Award (2002, 2003, 2004, 2005)
Beijing University, P. R. China