

Satish V Ukkusuri

Curriculum Vitæ

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EDUCATION

- **Doctor of Philosophy (PhD)** August 2005
The University of Texas at Austin
Transportation Systems, Civil Engineering
- **Master of Science (MS)** December 2002
University of Illinois at Urbana Champaign
Transportation Systems, Civil Engineering
- **Bachelor of Technology (BTech)** July 2001
Indian Institute of Technology, Madras, India
Major: Civil Engineering, Minor: IE, Transportation

PROFESSIONAL EXPERIENCE

- **Full Professor** July 2014-Present
Lyles School of Civil Engineering
Purdue University
- **Visiting Distinguished Professor** April 2015-December 2017
School of Transportation Engineering
Tongji University
- **Visiting Professor** February-March 2016
Department of Civil Engineering
Hong Kong University of Science and Technology
- **Fulbright Scholar** October 2015 - December 2016
Uninorte, Colombia
- **Senior Visiting Fellow** September-October 2012
School of Civil and Environmental Engineering
University of New South Wales, Australia
- **Associate Professor** August 2009-July 2014
Lyles School of Civil Engineering
Purdue University

- **Assistant Professor**

August 2005-August 2009

Blitman Endowed Chair Professor

Department of Civil and Environmental Engineering

Department of Decision Sciences and Engineering Systems (by courtesy)

Rensselaer Polytechnic Institute

HONORS AND AWARDS

- Arab-American Frontiers Fellowship by the US National Academies of Science (NAS) "given to increase and strengthen science and technology cooperation between researchers and institutions in the US and countries in the Arab league", 2018
- Invited to attend the Arab-American Frontiers of Science, Engineering and Medicine by the US National Academies of Science (NAS), 2017
- University Faculty Scholar, In recognition of "outstanding faculty members who are on an accelerated path for academic distinction" , 2017-present
- Excellence in Research Award, In recognition of world changing research and awards received given by the Office of Executive Vice President of Research and Partnerships at Purdue University (Received three times), 2015 2016 and 2017
- Selected as a Honorary Professor at Tsinghua University based on significant academic achievements and leadership, 2016-2019
- Invited to attend the National Academies of Engineering Japan Academy of Frontiers of Engineering Conference, 2016
- Selected to the High End Foreign Experts Program, People's Republic of China, 2015-2017
- Fulbright Innovation and Technology Award, 2015-16
- IMPACT Faculty Fellow, 2013
- Discovery Park Faculty Scholar, Based on "developing interdisciplinary research activities at the campus level" , 2013-15
- Roy E. and Myrna G. Wansik Civil Engineering Research Award given to an outstanding researcher in School of Civil Engineering - 2012
- CUTC-ARTBA New Faculty Award for contributions to transportation research and education, 2011
- Emerging Scholars Grant, University Transportation Research Center, Region 2, 2007
- CP-STIO Award, Department of Science and Technology, Govt. of India, 2007-2010
- Howard A Blitman Endowed Professorship, 2005-2009
- Southwest Region University Transportation Center (SWUTC) Robert Herman Award for outstanding research and leadership, 2005
- NSF Scholarship to attend the Xth International conference in Stochastic Programming, Tuscon, AZ, 2004.
- Graduate Travel Grant by School of Engineering, University of Illinois, 2002.

Awards to my Students:

- Finalist, Chorafas Award, Xinwu Qian, 2018

- First Prize, Health and Disease: Science, Technology, Culture and Policy Poster Session at Purdue University, Xinwu Qian, 2018
- College of Engineering Graduate student travel award to Wenbo Zhang, 2017
- International Association of Taxi Regulators (IATR) Hackaton Winners (Prof. Ukkusuri mentored a team of his graduate students), 2017
- James S McDonnell Post Doctoral Fellowship in Complex Systems to Xianyuan Zhan, 2016
- Swiss Science Fellowship to Wenbo Zhang, 2016
- Eldon Yoder Award for Best Graduate student to Sadri Arif Mohaimin, 2016
- Pai Tao Yeh Travel Fellowship to Xinwu Qian, 2016
- Excellence in Interdisciplinary Research from the Office of the Interdisciplinary Graduate Program to Sadri Arif Mohaimin, 2016
- CE Best Dissertation Award given to the best dissertation in Purdue Civil Engineering, Rodrigo Mesa Arango, 2015
- Microsoft Asia Internship, Xianyuan Zhan, 2015
- INFORMS Transportation Science and Logistics (TSL) Society Best Dissertation Award given to an outstanding dissertation in transportation and logistics from all over the world, Samiul Hasan, 2014
- Eldon Yoder Memorial Award for Best Graduate student to Rodrigo Mesa Arango, 2014
- Pai Tao Yeh Travel Fellowship to Feng Zhu, 2014
- Civil Engineering Outstanding Graduate Student to Abdul Aziz, 2014
- International Road Fellowship to Rodrigo Mesa Arango, 2013
- College of Engineering Best Graduate Student Research Award to Samiul Hasan, 2013
- Student Sustainability Research Project Award to Abdul Aziz, 2013
- Pai Tao Yeh Travel Fellowship to Xianyuan Zhan: 2013, 2014
- Graduate School Travel Grant to Abdul Aziz, 2013
- Best Poster Award, Shell Day at Discovery Park to Abdul Aziz, 2012
- Columbia Student Association Travel Grant to Rodrigo Mesa Arango, 2012
- INFORMS Transportation Science and Logistics (TSL) Society Best Dissertation Award, Gitakrishnan Ramadurai, 2009
- 2nd Paper Award to my Student, Gitakrishnan Ramadurai at the 2008 ITS World Congress on “Next Generation Traveler Guidance Systems”
- MIT Clean Energy Prize, Semi-Finals, 2009

- Founders Award to M.E. student, Courtney Sweeney, 2007.
- 9/11 Fellowship from NYMTC/UTRC to my Ph.D. student, Gitakrishnan Ramadurai, 2007-2008.

SCIENTIFIC PUBLICATIONS

- **Citations:** Google Scholar citations: 3964; h-index: 33; Scopus citations: 1863; h-index: 27 (April 5, 2018)

- **Theses**

1. **PhD Dissertation:** *Accounting for Uncertainty, Robustness and Information Resource in Transportation Networks*
University of Texas at Austin, August 2005
2. **Master's Thesis:** *Linear Programs for the User Optimal Dynamic Traffic Assignment Problem*
University of Illinois at Urbana Champaign, December 2002
3. **Undergraduate Thesis:** *Optimal Signal Settings using Genetic Algorithm*
Indian Institute of Technology, Madras (Chennai), May 2001.

- **Books**

1. Ukkusuri, S.V. and Ozbay, K (Editors). *Advances in Dynamic Traffic Guidance and Control*. Springer Publications. 2013, 312 pages.
2. Ukkusuri, S.V. and Yang, C. (Editors). *Transportation Analytics in the Era of Big Data*. Springer Publications. 2018 (Forthcoming).

(P)reprints available on request.

- **Peer Reviewed Book Chapters**

1. UKKUSURI, S. V., AND HOLGUIN-VERAS, J. E. Assessing critical components in transportation systems: Economic Models and Complex Network Science Models. *Network Science, Non-linear Science and Infrastructure Systems*. Chapter 9. Pages 187-200. Editor: Professor Terry Friesz. 2006.
2. UKKUSURI, S. V. AND KAROONSOONTAWONG, A. AND WALLER, S. T. AND KOCKELMAN, K. Congestion Pricing Technologies: A comparative evaluation. *Transportation Research Trends*. Chapter 4. Pages 121-142. Nova Publications. 2007.
3. UKKUSURI, S. V., DU, L. AND KALYANARAMAN, S. Integrating Traffic Flow Features to Characterize the Interference in Vehicle Ad Hoc Networks. *Automotive Informatics and Communicative Systems: Principals in Vehicular Networks and Data Exchange*. Chapter 9. Pages 162-179. Editors: Huaqun Guo. Singapore. 2008.
4. UKKUSURI, S. V. AND FRIESZ, T. L. Transportation Network Design: Problem Definition and Review. *A Dictionary of Transport Analysis*, pp. 458-460 Editors: Peter Nijkamp, Kenneth Button, and Henry Vega. 2010.
5. UKKUSURI, S. V., HASAN, S. AND ZHAN, X. Checking the Urban Pulse: Social Media Data Analytics for Transportation Applications *Best Practices for Transportation Agency Use of Social Media*. Chapter 4. 18 Pages. Editors: Kari Watkins and Susan Bergman. CRC Press. 2013.

6. AZIZ, A. AND UKKUSURI, S. V. An Approach to Assess the Impact of Dynamic Congestion in Vehicle Routing Problems *Advances in Dynamic Network Modeling in Complex Transportation Systems* . Chapter 11. Pages 265-287. Editors: Satish V Ukkusuri and Kaan Ozbay. Springer Publishers. 2013.
7. QIAN, X., ZHAN, X. AND UKKUSURI, S. V. Characterizing Urban Dynamics Using Large Scale Taxicab Data *Engineering and Applied Sciences Optimization: Volume 1 - Dedicated to the memory of Professor M.G. Karlaftis* . Chapter 24. Pages 265-287. Editors: Nikos Lagaros. Springer Publishers. 2015.
8. ZHANG, W., QIAN, X. AND UKKUSURI, S.V. Identifying the Temporal Characteristics of Intra-city Movement Using Taxi Geo-location Data Accepted in *Enriching Urban Spaces with Ambient Computing, the Internet of Things, and Smart City Design* (2016). Editors: Shin'ichi Konomi. IGI Global. 2016.
9. DOS REIS REZENDE, P., SADRI, A.M., AND UKKUSURI, S.V. Social Network Influence on Mode Choice and Carpooling during Special Events: The Case of Purdue Game Day In review *Social Networks Analytics*, Elsevier Publications (2017).

• Peer Reviewed Journal Publications

1. SUN, D., UKKUSURI, S. V., BENEKOHAL, R. F., WALLER, S. T. AND LIU, B. Fuzzy logic based online collision prediction system for signalized intersections. *Advances in Transportation Studies-An International Journal*. Vol. 3 (July 2004), 71–86.
2. SUN, D., UKKUSURI, S. V., BENEKOHAL, R. F., AND WALLER, S. T. Modeling of driver-pedestrian interaction at mid-block crosswalks. *Advances in Transportation Studies-An International Journal*. Vol. 6 (July 2005), pp. 57-73.
3. KYUNGHWI, J., LEE, J. S., UKKUSURI, S. V., AND WALLER, S. T. New approach for relaxing computational complexity of discrete network design problem using selectorecombinative genetic algorithm. *Transportation Research Record: Journal of the Transportation Research Board (TRR)*. No. 1964, Transportation Research Board of the National Academies, Washington, D.C., pp. 91-103, 2006.
4. UKKUSURI, S. V., AND WALLER, S. T. Single point approximations for the traffic equilibrium problem under uncertain demand. *Transportation Research Record: Journal of the Transportation Research Board (TRR)*. No. 1964, Transportation Research Board of the National Academies, Washington, D.C., pp. 169-175, 2006.
5. PATIL, G. AND UKKUSURI, S. V. Stochastic system optimal network design problem (*Transportation Research Record: Journal of the Transportation Research Board (TRR)*). No. 2029, pp. 80-86 (2007).
6. BARKAN, C. P., UKKUSURI, S. V., AND WALLER, S. T. Optimizing the design of railway tank cars to minimize accident-caused releases. *Computers and Operations Research..* Vol. 34, pp. 1266-1286 (2007)
7. UKKUSURI, S. V., TOM,V. M., AND WALLER, S. T. Robust transportation network design under demand uncertainty. *Computer Aided Civil and Infrastructure Engineering*. Vol. 22, pp. 9-21 (2007).
8. RAMADURAI, G., AND UKKUSURI, S. V. Dynamic traffic equilibrium: Theoretical and experimental network game results in the single bottleneck model. (*Transportation Research Record: Journal of the Transportation Research Board (TRR)*). No. 2029, pp. 1-13 (2007).
9. UKKUSURI, S. V. AND PATIL, G. Exploring user behavior in online network equilibrium problems. (*Transportation Research Record: Journal of the Transportation Research Board (TRR)*). No. 2029, pp. 31-38 (2007).
10. HOLGUIN-VERAS, J. H., PEREZ, N., UKKUSURI, S. V., WACHTENDORF, T. AND BETHANY, B. Emergency logistics issues in Hurricane Katrina: A synthesis and preliminary suggestions for improvement (*Transportation Research Record: Journal of the Transportation Research Board (TRR)*). No. 2022, pp. 76-82 (2007).
11. KAROONSOONTAWONG, A., UKKUSURI, S. V., WALLER, S. T. AND KOCKELMAN, K. Simulation based heuristic approach for dynamic marginal cost pricing *Journal of Transportation Research Forum*. Vol.47(4), pp.81-99 (Fall 2008).
12. UKKUSURI, S. V. AND YUSHIMITO, W. Location routing problem for the humanitarian repositioning problem. *Transportation Research Record: Journal of the Transportation Research Board (TRR)*. No. 2089, pp.18-25 (2008).

13. UKKUSURI, S. V., AND DU, L. Geometric connectivity of vehicular Ad Hoc networks: Analytical characterization. *Transportation Research Part-C*. Vol. 16C(5), pp. 615-634 (2008).
14. UKKUSURI, S. V., AND WALLER, S. T. Linear programming models for the user and system optimal dynamic network design problem: Formulations, implementations and comparisons. *Networks and Spatial Economics*. Vol. 8(4), pp.383-406 (2008).
15. UKKUSURI, S. V. AND RAMADURAI, G. A comprehensive review of emerging technologies for congestion reduction and safety. *Transportation Research Record: Journal of the Transportation Research Board (TRR)*. Vol. 2129, pp.101-110 (2009).
16. UKKUSURI, S. V. AND PATIL, G. Multi-period transportation network design under demand uncertainty. *Transportation Research Part B: Methodological*. Vol. 43(6), pp. 625-642(2009).
17. SHARMA, S., UKKUSURI, S. V. AND MATHEW, T. V. A pareto optimal multi-objective optimization for the robust transportation network design problem. *Transportation Research Record: Journal of the Transportation Research Board (TRR)*. Vol. 2090, pp.95-104 (2009).
18. UKKUSURI, S. V. AND YUSHIMOTO, W. A methodology to assess the criticality of highway transportation networks. *Journal of Transportation Security*. Vol 2(1), pp.29-46 (June 2009).
19. MIRANDA, L.M., FU, L., UKKUSURI, S. V. AND LORD, D. How to incorporate accident severity and vehicle occupancy into hotspot identification process? *Transportation Research Record: Journal of the Transportation Research Board (TRR)*. Vol. 2102, pp.53-60 (2009).
20. DU, L., UKKUSURI, S. V. AND KALYANARAMAN, S. AND YUSHOMITO, W. Characterizing interference in vehicle Ad Hoc networks on freeway segments under various traffic flow conditions. *Transportation Research Part-C*. Vol. 17C(6), pp. 571-585 (2009).
21. UKKUSURI, S. V. AND WALLER, S.T. Approximate analytical expressions for the traffic equilibrium problem under uncertain demand. *Transportation Letters: The International Journal of Transportation Research*. Vol. 2(2), pp. 111-124 (2010).
22. UKKUSURI, S. V. AND DU, L. Relative mobility of vehicles improves the information propagation in vehicular Ad Hoc networks. *Networks and Spatial Economics*. Vol. 10(2), pp. 209-240 (2010).
23. UKKUSURI, S. V., AND RAMADURAI, G. AND PATIL, G. A robust signal control formulation accounting for traffic dynamics. *Computers and Operations Research*. Vol. 37 (5), pp. 869-879 (May 2010).
24. RAMADURAI, G., AND UKKUSURI, S. V. A dynamic superNetwork model accounting for activity participation in transportation networks. *Networks and Spatial Economics*. Vol. 10(2), pp. 273-292 (2010).
25. RAMADURAI, G., UKKUSURI, S. V., ZHAO, J, AND PANG, J. S. Linear complementary formulation for the multi-user class single bottleneck problem *Transportation Research Part B: Methodological*. Vol. 44(2), pp. 193-214(2010).
26. HASAN, S. AND UKKUSURI, S. V. A contagion model for understanding the propagation of hurricane warning information *Transportation Research Part B (Methodological)*. Vol. 45(10), pp. 1590-1605 (2011).

27. HANG, Y., QU, M. AND UKKUSURI, S.V. Optimizing the design of a solar cooling system using central composite design techniques *Energy and Buildings*. 43(4), pp. 988-994 (2011).
28. HAN, L., UKKUSURI, S.V. AND DOAN, K. Complementarity formulations for the dynamic user equilibrium with departure time choice, elastic demand and user heterogeneity *Transportation Research Part B (Methodological)*. Vol. 45(10), pp. 1749-1767 (2011).
29. DOAN, K., UKKUSURI, S.V., AND HAN, L. On the existence of pricing strategies in the heterogeneous single bottleneck model and its extensions *Transportation Research Part B (Methodological)*. Vol. 45(9), pp. 1483-1500 (2011).
30. UKKUSURI, S.V., HASAN, S. AND AZIZ, A. A random parameter model to explain the built environment effects of pedestrian crash frequency *Transportation Research Record: Journal of the Transportation Research Board*. Vol. 2237, pp. 98-106 (2011).
31. UKKUSURI, S. V., WANG, Y. AND CHIGAN, T. Special Issue on Exploiting Wireless Communication Technologies in Vehicular Transportation Networks. *IEEE Transactions of Intelligent Transportation Systems* . Vol. 12(3), pp. 633-634 (2011).
32. HOLGUIN-VERAS, J., OZBAY, K., KORNHAUSER, A., BROM, M.A., IYER, S., YUSHIMITO, W.F., UKKUSURI, S.V. , ALLEN, B. AND SILAS, M. Overall impacts of off-peak delivery programs in New York metropolitan area *Transportation Research Record: Journal of the Transportation Research Board*. Vol. 2238, pp. 68-76 (2011).
33. HASAN, S., UKKUSURI, S. V., GLADWIN, H. AND MURRAY-TUITE, P. A behavioral model to understand household level hurricane evacuation decision making *ASCE Journal of Transportation Engineering*. Vol. 137(5), pp. 341-349 (2011).
34. UKKUSURI, S. V. AND PATIL, G. A sample average approximation method for the flexible network design problem *ASCE Journal of Computing in Civil Engineering*. 25(3), pp. 254-263 (2011).
35. RAMADURAI, G. AND UKKUSURI, S. V. B-Dynamic: An efficient algorithm for the dynamic user equilibrium in activity travel networks. *Computer Aided Civil and Infrastructure Engineering*. Vol. 26(4), 254-269 (2011).
36. SHARMA, S., MATHEW, T. V., AND UKKUSURI, S. V. Approximation techniques for the transportation network design problem under demand uncertainty. *ASCE Journal of Computing in Civil Engineering* . Vol. 25(4), pp. 316-330 (2011).
37. UKKUSURI, S.V., HAN, L. AND KIEN, D. Dynamic user equilibrium with a path based cell transmission model for general traffic networks. *Transportation Research Part B (Methodological)*. Vol. 46(10), pp. 1657-1684 (2012).
38. DOAN, K. AND UKKUSURI, S.V. On the holding back problem in cell transmission based dynamic traffic assignment models *Transportation Research Part B (Methodological)*. Vol. 46(9), pp. 1218-1238 (2012).
39. AZIZ, A. AND UKKUSURI, S.V. Integration of environmental objectives in a system optimal dynamic traffic assignment model *Computer Aided Civil and Infrastructure Engineering*. Vol. 27(7), pp. 494-511(2012).
40. PANG, J. S., HAN, L., RAMADURAI, G. AND UKKUSURI, S. V. A continuous time linear complementarity system for dynamic equilibria in single bottleneck traffic flows *Mathematical Programming Part A*. Vol. 133(1), pp. 437-460 (2012).

41. YUSHIMITO, W., JALLER, M. AND UKKUSURI, S. V. Facility location in disasters: A voronoi based heuristic algorithm with an application to hurricane Katrina *Networks and Spatial Economics*. Vol. 12(1), pp. 21-39 (2012).
42. HASAN, S. , MESA-ARANGO, R. AND UKKUSURI, S. V. , MURRAY-TUITE, P. Transferability of hurricane evacuation models: Joint estimation model using multiple data sources. *ASCE Journal of Transportation Engineering*. Vol. 138(5), pp. 548-556 (2012).
43. UKKUSURI, S.V., MIRANADA, L., RAMADURAI, G. AND ISA, J. The role of built environment on pedestrian safety in New York City *Safety Science*. Vol. 50(4), pp. 1141-1151 (2012).
44. ZHAN, X., HASAN, S., UKKUSURI, S.V. AND KAMGA, C. Urban travel time estimation using large scale taxi data with limited information. *Transportation Research Part C(Emerging Technologies)*. Vol. 33, pp. 37-49 (2013).
45. HASAN, S., SCHNEIDER, C., UKKUSURI, S.V. AND GONZALEZ, M. Spatio-temporal patterns of urban human mobility. *Journal of Statistical Physics*. Vol. 151, Issue 1-2, pp. 304-318 (2013).
46. COLLINS, C., HASAN, S. AND UKKUSURI, S.V. A novel transit rider satisfaction metric: Riders sentiment measured from online social media data. *Journal of Public Transportation*. Vol. 16(2), pp. 21-45 (2013).
47. SADRI, A.M., UKKUSURI, S.V. AND MURRAY-TUITE, P. A random parameter probit model to understand the mobilization time in hurricane evacuations. *Transportation Research Part C(Emerging Technologies)*. Vol. 32, pp. 21-30 (2013).
48. AZIZ, A., UKKUSURI, S.V. AND HASAN, S. Exploring the determinants of pedestrian-vehicle crash severity in New York City. *Accident Analysis and Prevention*. Vol. 50, pp. 1298-1309 (2013).
49. HAN, L. AND UKKUSURI, S.V. A complementarity approach for an environmental-economic game with coupling emission constraints. *Environmental Modeling and Assessment*. Vol.18(2), pp. 147-158 (2013).
50. MESA-ARANGO, R., HASAN, S., UKKUSURI, S.V. AND MURRAY-TUITE, P. Household level models for hurricane evacuation destination choice using hurricane Ivan data. *Natural Hazards Review*. Vol. 14 (1), pp. 11-20 (2013).
51. HASAN, S. , MESA-ARANGO, R. AND UKKUSURI, S. V. A random parameter hazard based model to understand the temporal dynamics of household evacuation timing behavior. *Transportation Research Part C (Emerging Technologies.)* Vol. 27, pp. 108-116 (2013).
52. MURRAY-TUITE, P., YIN, W., UKKUSURI, S.V. AND GLADWIN, H. Changes in evacuation decisions between hurricane Ivan and Katrina *Transportation Research Record: Journal of the Transportation Research Board*. Vol. 2312, pp. 98-107 (2013).
53. AZIZ, A. AND UKKUSURI, S.V. Unified framework for dynamic traffic assignment and signal control with cell transmission model . *Transportation Research Record: Journal of the Transportation Research Board*. Vol. 2311, pp. 73-84 (2013).
54. MOHAMED, M.G., SAUNIER, N., MIRANDA, L. AND UKKUSURI, S.V. A clustering regression approach: A comprehensive injury severity analysis of pedestrian-vehicle crashes in New York, US and Montreal, Canada. *Safety Science*. Vol. 54, pp. 27-37 (2013).

55. ARIF, S.M., UKKUSURI, S.V., MURRAY-TUITE, P. AND GLADWIN, H. How to Evacuate: A behavioral model to understand the routing strategies during hurricane evacuation. *ASCE Journal of Transportation Engineering*. Vol.140(1), pp.61-69 (2014).
56. AZIZ, A. AND UKKUSURI, S.V. Tradable Emission Credits for Personal Travel: A Market based approach to achieve air quality standards. *International Journal of Advances in Engineering Sciences*. Vol.5(2-3), pp.145-157 (2013).
57. HASAN, S. AND UKKUSURI, S.V. Social contagion process in informal warning networks to understand evacuation timing behavior. Accepted in *Journal of Public Health Management and Practice*. (Invited) Vol. 19, pp. 68-69 (2013).
58. ZHU, F. AND UKKUSURI, S.V. A cell based dynamic system optimum model with non-holding back flows. *Transportation Research Part C(Emerging Technologies)*. Vol. 36, pp.367-380 (2013).
59. MESA-ARANGO, R., UKKUSURI, S.V. AND SARMIENTO, I. A network flow methodology to estimate empty trips in freight transportation. *Transportation Research Record: Journal of the Transportation Research Board*. Vol.2378, pp.110-119 (2013).
60. MESA-ARANGO, R. AND UKKUSURI, S.V. Benefits of in-vehicle consolidation in less than truckload freight transportation operations *Transportation Research Part E (Freight Transportation and Logistics)*. Vol. 60(7), pp.113-125 (2013).
61. MESA-ARANGO, R. AND UKKUSURI, S.V. Attributes driving the selection of trucking services and the quantification of the shipper's willingness to pay. *Transportation Research Part E*. Vol. 71, pp. 142-158 (2014).
62. AZIZ, H.M. AND UKKUSURI, S.V. Exploring the trade-off between greenhouse gas emissions and travel time in daily travel decisions: Route and departure time choices *Transportation Research Part D (Transport and Environment)*. Vol. 32, pp. 334-353 (2014).
63. ARIF, S.M., UKKUSURI, S.V., MURRAY-TUITE, P. AND GLADWIN, H. Analysis of hurricane evacuee mode choice behavior. *Transportation Research Part C (Emerging Technologies)*. Vol. 48, pp. 37-46 (2014).
64. HASAN, S. AND UKKUSURI, S.V. Urban activity pattern classification using topic models from online geo-location data. *Transportation Research Part C(Emerging Technologies)*. Vol. 44, pp.363-381 (2014).
65. DORADO, I.G., ALIAGA, D. AND UKKUSURI, S.V. Designing large-scale interactive traffic animations for urban modeling. *Computer Graphics Forum*. Vol. 33(2), pp. 411-420 (2014).
66. YASMIN, S., ELURU, N. AND UKKUSURI, S.V. Alternative ordered response frameworks for examining pedestrian injury severity in New York City. *Journal of Transportation Safety and Security*. Vol. 6(4), pp.275-300 (2014).
67. YIN, W., MURRAY-TUITE, P., UKKUSURI, S.V. AND GLADWIN, H. An agent-based modeling system for travel demand simulation for hurricane evacuation. *Transportation Research Part C (Emerging Technologies)*. Vol. 42C, pp.44-59 (2014).
68. ZHU, F. AND UKKUSURI, S.V. Accounting for dynamic speed limit control problems in stochastic traffic environment: A reinforcement learning approach. *Transportation Research Part C(Emerging Technologies)*. Vol. 41, pp.30-47 (2014).

69. MESA-ARANGO, R. AND UKKUSURI, S.V. Modeling the car truck interactions in a system optimal dynamic traffic assignment. *Journal of Intelligent Transportation Systems: Technology, Planning and Operations*. Vol. 18 (4), pp. 327-338 (2014).
70. JEERANGSUWAN, T., SAID, H., KANDIL, A. AND UKKUSURI, S.V. Financial evaluation for toll road projects considering traffic volume and serviceability interactions *ASCE Journal of Infrastructure Systems*. Vol. 20(3), (2014).
71. ZHAN, X. AND UKKUSURI, S.V. Inferring urban land use using large scale social media check-in data *Networks and Spatial Economics*, Vol. 14(3), pp. 647-667 (2014).
72. ZHANG, B., CHAN, W.K. AND UKKUSURI, S.V. On the modeling of transportation evacuation: an agent based discrete-event hybrid-space approach. *Journal of Simulation*, Vol. 8(4), pp. 259-270 (2014).
73. UKKUSURI, S.V., ZHAN, X., ARIF, S.M. AND YE, Q. Use of social media data to explore crisis informatics: Study of 2013 Oklahoma tornado. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2459, pp. 110-118 (2014) .
74. YE, Q. AND UKKUSURI, S.V. Resilience as an objective in the optimal reconstruction sequence for transportation networks. *Journal of Transportation Safety and Security*. Vol. 7(1), pp. 91-105 (2015).
75. DOAN, K. AND UKKUSURI, S.V. Dynamic system optimal model for multi-OD traffic networks with an advanced spatial queuing model. *Journal of Transportation Research Part-C*, Vol. 51, pp.41-65 (2015).
76. AZIZ, H.M., UKKUSURI, S.V. AND ROMERO, J. Understanding short-term travel behavior under personal mobility credit allowance scheme using experimental economics. *Transportation Research Part D*, Vol. 36, pp. 121-137 (2015).
77. ZHU, F. AND UKKUSURI, S.V. A linear programming formulation for autonomous intersection control within a dynamic traffic assignment and connected vehicle environment. *Transportation Research Part C*, Vol. 55, pp. 363-378 (2015).
78. QIAN, X. AND UKKUSURI, S.V. Spatial variation of the urban taxi ridership using GPS data. *Applied Geography*, Vol. 59, pp. 31-42 (2015).
79. ZHAN, X, LI, R. AND UKKUSURI, S.V. Lane-based real time queue length estimation using license-plate recognition data. *Transportation Research Part C*, Vol. 57, pp.85-102 (2015).
80. ZHU, F., AZIZ, H.M., QIAN, X. AND UKKUSURI, S.V. A junction-tree based learning algorithm to optimize network wide traffic control: A coordinated multi-agent framework. *Transportation Research Part C*, Vol. 58, pp. 487-501 (2015).
81. DOAN, K. AND UKKUSURI, S.V. Measuring the network inefficiency in dynamic traffic networks: A numerical approach *Transportation Letters*, Vol.7(3), pp.154-167 (2015) .
82. SU, X., CAI, H., LUONG, B. AND UKKUSURI, S.V. From a Link-Node based network representation model to a lane-based network representation model: Two-dimensional arrangements approach *ASCE Journal of Computing in Civil Engineering*, Vol. 29(3) (2015).

83. HASAN, S. AND UKKUSURI, S.V. Location contexts of user check-ins to model urban geo life-style patterns. *PLOS One*, 10(5), e0124819. doi: 10.1371/journal.pone.0124819 (2015).
84. ZHU, F. AND UKKUSURI, S.V. A reinforcement learning approach for distance-based dynamic tolling in the stochastic network environment. *Journal of Advanced Transportation*, Vol. 49(2), pp. 247-266 (2015).
85. MESA-ARANGO, R. AND UKKUSURI, S.V. Demand clustering in freight logistics networks. *Transportation Research Part E*, Vol. 81, pp. 36-51 (2015).
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 83. FENG, Z. AND UKKUSURI, S.V. On dynamic information propagation through inter-vehicular communications In *Proceedings of the 19th International conference of Hong Kong Society of Transportation Studies (HKSTS)* (Hong Kong, December 2014).
 84. ARIF, S.M., LEE, S. AND UKKUSURI, S.V. Exploring the effects of social ties on joint trip frequency: An ego-centric social network approach In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
 85. AZIZ, H.M., ROMERO, J. AND UKKUSURI, S.V. Understanding short-term travel behavior under personal mobility credit allowance scheme using experimental economics. In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).

86. HASAN, S. AND UKKUSURI, S.V. Location contexts of user check-ins to model geo life-style patterns In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
87. PARIKH, P. AND UKKUSURI, S.V. Estimation of optimal inventory levels at stations of a bicycle sharing system In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
88. MESA-ARANGO, R., NARAYANAN, B. AND UKKUSURI, S.V. The impact of international crises on maritime transportation based global value chains In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
89. ZHAN, X., QIAN, X. AND UKKUSURI, S.V. A graph based approach to measuring the efficiency of urban taxi service system In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
90. ZHAN, X. AND UKKUSURI, S.V. A probabilistic urban link travel time estimation using large-scale taxi data In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
91. ZHU, F. AND UKKUSURI, S.V. On Learning based Intersection Signal Control with Partial Information from Connected Vehicles In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
92. QING, Y., XIAO, F., PENG, Q. AND UKKUSURI, S.V. Regulating the peak incoming passenger flow in subways systems In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
93. AZIZ, H.M. AND UKKUSURI, S.V. Finding the link driving schedules LDS for integrated traffic emissions EPA-MOVES simulator by clustering with dynamic time warping measures In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
94. MESA-ARANGO, R. AND UKKUSURI, S.V. Pricing and demand segmentation of bids in truckload combinatorial auctions In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
95. QIAN, X. AND UKKUSURI, S.V. Exploring the spatial variation of the urban taxi ridership using geographically weighted regression In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
96. ZHU, F. AND UKKUSURI, S.V. Accounting for traffic oscillation under the mixed connected vehicle environment in microscopic traffic simulation In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
97. ZHU, F. AND UKKUSURI, S.V. A linear programming formulation for autonomous intersection control and dynamic traffic assignment under the connected vehicle environment In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
98. ZHU, F. AND UKKUSURI, S.V. On dynamic information propagation in vehicular ad-hoc networks. In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).

99. ZHAN, X, LI, R. AND UKKUSURI, S.V. Lane-based real time queue length estimation using license-plate recognition data. In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
100. ARIF, S.M., UKKUSURI, S.V, MURRAY-TUITE, P. AND GLADWIN, H. Hurricane evacuation routing strategy from Miami Beach: Choice of major bridges. In Proceedings of 93rd Transportation Research Board Meeting, National Academies (Washington D.C., January 2015).
101. ARIF, S.M., UKKUSURI, S.V. AND GLADWIN, H. Characterizing the social network influence on evacuation behavior during hurricanes. In Proceedings of 2015 International Association of Travel Behavior Research Conference (London, U.K., June 2015).
102. ZHANG, B., CHAN, W.K. AND UKKUSURI, S.V. Adaptive Routing and Guidance Approach for Transportation Evacuation. In Proceedings of 2015 Winter Simulation Conference (Huntington Beach, CA, December 2015).
103. QIAN, X. AND UKKUSURI, S.V. Global learning particle swarm optimizer for the network design problem. In Proceedings of 2016 World Conference in Transport Research (Shanghai, China, June 2016).
104. ZHAN, X. AND UKKUSURI, S.V. Spatial Dependency of Urban Sprawl and Underlying Road Network Structure. In Proceedings of 2016 World Conference in Transport Research (Shanghai, China, June 2016).
105. SARWAR, T., ANASTASOPOULOS, P., UKKUSURI, S.V., MURRAY-TUITE, P., AND MANNERING, F. A statistical analysis of the dynamics of household hurricane evacuation decisions. In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
106. MESA-ARANGO, R. AND UKKUSURI, S.V. Pricing and segmentation of stochastic demand in truckload combinatorial bids. In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
107. ZHANG, W. AND UKKUSURI, S.V. How do vacant taxi drivers find the next customer? Empirical findings on vacant taxi customer search behaviors. In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
108. ZHANG, W., UKKUSURI, S.V. AND LU, J. Identifying the determinants of the empty taxi trip duration using limited geolocation data. In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
109. MESA-ARANGO, R. AND UKKUSURI, S.V. Pricing and segmentation of stochastic demand in less than truckload combinatorial bids. In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
110. ZHU, F. AND UKKUSURI, S.V. Modeling the proactive driving behavior of connected vehicles: Cell based simulation model. In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
111. REIS REZENDE, P., SADRI, A.M. AND UKKUSURI, S.V. Social network influence on mode choice and carpooling during special events: The case of Purdue game day.

- In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
112. YANG, C., YAN, F. AND UKKUSURI, S.V. Unraveling traveler mobility patterns in Shenzhen metro system. In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
 113. YIN, W., MURRAY-TUITE, P., UKKUSURI, S.V. AND GLADWIN, H. Modeling shadow evacuation for hurricanes using a random parameters logit model. In Proceedings of 94th Transportation Research Board Meeting, National Academies (Washington D.C., January 2016).
 114. SADRI, A.M., UKKUSURI, S.V. AND GLADWIN, H. The role of social networks, information sources and household characteristics on hurricane Sandy evacuation decision making. In Proceedings of the National Evacuation Conference (New Orleans, March 2016).
 115. LEE, S., SADRI, A.M., UKKUSURI, S.V. AND CLAWSON, R. Personal Network Structure and Post-Disaster Recovery Experiences in Tornado-Affected Communities. In Proceedings of the Sunbelt Conference (Long Beach, April 2016).
 116. ZHU, F. AND UKKUSURI, S.V. Efficient System States in Dynamic Traffic Systems. In Proceedings of the International Symposium of Dynamic Traffic Assignment (Sydney, June 2016).
 117. QIAN, X., YAN, F., YANG, C. AND UKKUSURI, S.V. Short Term Taxi Demand Forecasting using Gaussian Conditional Random Field Model. In Proceedings of the 95th Transportation Research Board Meeting, National Academies (Washington D.C., January 2017).
 118. MIRALINAGHI, M., PEETA, S. AND UKKUSURI, S.V. Managing Morning Commute Congestion with Tradable Credit Scheme Under Commuter Heterogeneity and Loss Aversion. In Proceedings of the 95th Transportation Research Board Meeting, National Academies (Washington D.C., January 2017).
 119. GEHLOT, H., SADRI, A.M. AND UKKUSURI, S.V. Joint Estimation of Evacuation Departure and Travel Times using Hurricane Sandy Data. In Proceedings of the 95th Transportation Research Board Meeting, National Academies (Washington D.C., January 2017).
 120. ZHANG, Y., ZHAN, X., YANG, C. AND UKKUSURI, S.V. Activity Chain Inference using Tensor Based Collaborative Filtering. In Proceedings of the 95th Transportation Research Board Meeting, National Academies (Washington D.C., January 2017).
 121. ZHANG, W., QIAN, X. AND UKKUSURI, S.V. Evolution of Spatio-Temporal Patterns of Taxi Operations. In Proceedings of the 95th Transportation Research Board Meeting, National Academies (Washington D.C., January 2017).
 122. ZHANG, W., LE, T. AND UKKUSURI, S.V. Operations and Pricing of Optimal Taxi Group Ride Problem. In Proceedings of the 95th Transportation Research Board Meeting, National Academies (Washington D.C., January 2017).
 123. SADRI, A.M., HASAN, S. AND UKKUSURI, S.V. Understanding Social Interaction Networks for Planned Special Events from Twitter. In Proceedings of the 95th Transportation Research Board Meeting, National Academies (Washington D.C., January 2017).

124. QIAN, X., YANG, C. AND UKKUSURI, S.V. The Spatial Autoregressive Simultaneous Equation Model for Daily Taxi and Uber ridership. In Proceedings of the 95th Transportation Research Board Meeting, National Academies (Washington D.C., January 2017).
125. ZISCHG, J., KLINKHAMER, C., ZHAN, X., KRUEGER, E., UKKUSURI, S.V., RAO, P.S.C., RAUCH, W., AND SITZENFREI, R. Evolution of Complex Network Topologies in Urban Water Infrastructure. In Proceedings of the World Environmental and Water Resources Congress, pp. 648-659 (Sacramento, California, May 2017).
126. ZHANG, W., KUMAR, D. AND UKKUSURI, S.V. Exploring the Dynamics of Surge Pricing in Mobility-on-Demand Taxi Services. In Proceedings of the IEEE Big Data 2017 Conference, (Boston, December 2017). Acceptance Rate: 20%
127. KUMAR, D. AND UKKUSURI, S.V. Analyzing Tweets to model evacuation behavior during emergencies: A case study of Hurricane Sandy. Accepted, WWW 2018 Workshop on Exploitation of Social Media for Emergency Relief and Preparedness (SMERP), (Lyon, France April 2018).
128. GEHLOT, H. AND UKKUSURI, S.V. Policy based routing with link transmission model in dynamic traffic networks. Accepted in International Symposium of Dynamic Traffic Assignment (DTA 2018), (Hong Kong, July 2018).

PROJECT FUNDING AND INVOLVEMENT

- **Summary:** Total Research Funding (2006-present): \$15.83 million; Total Research Funding as a PI: \$9.58 million
- **Purdue University**
 1. *Resilience Modeling in Cities*,
PI (co-PI: Suresh Rao) ,
Time of award: January 1, 2018 – December 31, 2018
Agency Sponsor: Ford Foundation
Funds: \$129,300
My responsibility: 75% of the contract.
 2. *NSF Hurricane Harvey RAPID: Returning behavior of evacuees in Hurricane Harvey*,
PI (co-PI: Seungyoon Lee and Shreyas Sundaram) ,
Time of award: October 1, 2017 – October 31, 2018
Agency Sponsor: NSF
Funds: \$40,000
My responsibility: 55% of the contract.
 3. *INDOT : Safety Impacts of Right Turn Lanes at Intersections*,
PI,
Time of award: January 1, 2018 – December 31, 2019
Agency Sponsor: INDOT
Funds: \$164,403
My responsibility: 100% of the contract.
 4. *NSF CRISP Type 2: Collaborative Research: Critical Transitions in the Resilience and Recovery of Interdependent Social and Physical Networks*,
Lead PI (co-PI: Seungyoon Lee, Shreyas Sundaram and Laura Siebeneck) ,
Time of award: January 1, 2017 – December 31, 2020
Agency Sponsor: NSF
Funds: \$2.5 million
My responsibility: 60% of the contract.
 5. *INDOT : Tactical Guidance for Indiana Transportation for the Connected and Autonomous Vehicles Future*,
PI,
Time of award: December 1, 2016 – May 30, 2018,
Agency Sponsor: INDOT
Funds: \$200,000
My responsibility: 100% of the contract.
 6. *NSF Hazards SEES: Bridging Information, Uncertainty and Decision-Making in Hurricanes using an Interdisciplinary Perspective*,

- Lead PI (co-PI: Seungyoon Lee, Pamela Murray-Tuite, Yue Ge, Seungyoon Lee and Milind Kulkarni) ,
Time of award: November 1, 2015 – October 31, 2019
Agency Sponsor: NSF
Funds: \$2.5 million
My responsibility: 45% of the contract.
7. *Novel techniques to develop link-driving schedules for MOVES,*
PI ,
Time of award: January 1, 2015 – May 30, 2017,
Agency Sponsor: USDOT
Funds: \$140,000 (including cost share)
My responsibility: 100% of the contract.
8. *INDOT Synthesis Project: Best practices for maximizing driver attention at work zones,*
PI (co-PI: Nadia Gkritza) ,
Time of award: December 1, 2014 – August 1, 2015,
Agency Sponsor: INDOT
Funds: \$45,000
My responsibility: 75% of the contract.
9. *INDOT: Evaluate the impacts of time of day tolling on Indiana roadways,*
PI (co-PI: Samuel Labi) ,
Time of award: October 1, 2014 – September 30, 2016,
Agency Sponsor: INDOT
Funds: \$240,000
My responsibility: 80% of the contract.
10. *Resilient Communities: Strengthening Post-Disaster Recovery by Understanding Interdependent Social and Physical Networks,*
co-PI (PI: Suengyoon Lee, Other co-PIs: Rosalee Clawson, Daniel Aldrich, Daniel Kelly, Justin Siepel, Megan Nelson, Abhi Deshmukh) ,
Time of award: September 1, 2014 – August 31, 2015,
Agency Sponsor: Mellon Foundation
Funds: \$68,000
My responsibility: 31% of the contract.
11. *USDOT :A decision support tool to locate shelters in emergencies,*
PI (co-PI:Yangeng Ouyang) ,
Time of award: August 1, 2013 – July 3, 2014 (1 year),
Funds: \$240,000 (including cost share)
My responsibility: 50% of the contract.
12. *NSF: From warnings to evacuation in hurricanes using an interdisciplinary approach,*
PI (co- PI: Hugh Gladwin, Florida International University) ,

- Time of award: January 1, 2011 – December 31, 2015,
Funds: \$495,000
My responsibility: 80% of the contract.
13. *USDOT :A agent based model for the adaptive traffic signal systems,*
co- PI (PI:Ray Benekohal (University of Illinois)) ,
Time of award: March 1, 2011 – February 28, 2012 (1 year),
Funds: \$160,000
My responsibility: 50% of the contract.
14. *USDOT :A decision support tool to model short term freight disruptions,*
PI (co- PI:Fred Mannering, Amlan Mitra) ,
Time of award: March 1, 2011 – February 28, 2012 (1 year),
Funds: \$90,000
My responsibility: 80% of the contract.
15. *GPRI :Network Resilience in Disasters: An International, Interdisciplinary Perspective,*
PI (co- PI:Daniel Aldrich) ,
Time of award: December 1, 2010 – November 30, 2011 (1 year),
Funds: \$40,000
My responsibility: 60% of the contract.
16. *NSF: Collaborative Proposal: Dynamic equilibrium in Transportation and Telecommunication Networks,*
PI (Other PI: Elliot Anshelevich and Koushik Kar) ,
Time of award: September 1, 2010 – August 31, 2013 (3 years),
Funds: \$500,000
My responsibility: 35% of the contract.
17. *NSF: Collaborative Proposal: Integrating Networking and Real Time Signal Control for Urban Transportation Networks,*
PI (Other PI: Nick Maxemchuck) ,
Time of award: January 1, 2010 – December 31, 2012 (3 years),
Funds: \$500,000
My responsibility: 50% of the contract.
18. *NSF: Collaborative Proposal: Incorporating Household Decision Making with Dynamic Transportation Modeling in Hurricane Evacuation: An Integrated Social Science-Engineering Approach*
Lead PI (Other PIs: Victor Chan, Elliot Anshelevich, Florida International University (Hugh Gladwin, Fang Zhao) and Virginia Polytechnic Institute (Pam Murray-Tuite))
Time of award: January 1, 2009 – December 31, 2012,
Funds: \$765,000
My responsibility: 60% of the contract at Purdue.

19. *Pedestrian Fatality and Severe Injury Accidents in New York City*,
PI from Purdue (Lead PI: Allison deCerreno)
Time of award: January 1, 2008 – November 6, 2010,
Funds: \$110,000
Agency Sponsor: New York City Department of Transportation
My responsibility: 100% of the contract

20. *Integrative Freight Demand Management in New York Metropolitan Area*
co-PI, (Other PI's: Jose Holguin-Veras, Kaan Ozbay, Allison de Cerreno and Alain Kornhauser),
Time of award: July 1, 2007 – April 30, 2010,
Funds: Total Project Costs: \$1.865 million; Cost Share: \$640,000; RPI U.S.DOT funds \$800,000
Program: Remote and Sensor Technology Initiative at U.S. Department of Transportation,
My responsibility: \$45,000. Remaining portion of my funds left at RPI

21. *Analysis and Design of Large Scale Robust Transportation Networks*,
PI (Other PI: Tom V Mathew),
Time of award: May, 2007 – April, 2010 (3 years),
Funds: Total Funds: \$14,000; Mainly for travel and lodging at IIT Bombay.
Agency Sponsor: Selected as one of the 20/254 projects for the Collaborative Project for Scientists and Technologists of Indian Origin (CP-STIO) program by the Department of Science and Technology (DST), Government of India.
My responsibility: 100% of the contract.

• **Rensselaer Polytechnic Institute**

1. *New York City Park and Ride Study*,
Lead PI (Other collaborators: Jack Reilly (Consultant and Adjunct Faculty) and Jose Holguin-Veras)
Time of award: February 1, 2009 – September 30, 2010 (1 year),
Funds: \$230,000
Agency Sponsor: New York State Department of Transportation/UTRC.
My responsibility: 100% of the contract.

2. *A Smarter I-278 Corridor: Moving People, Freight, and the Regional Economy, Phase I*,
Co-PI (PI: Jose Holguin-Veras)
Time of award: September 1, 2007 – December 31, 2008 (16 months),
Funds: RPI total funds \$260,000
Agency Sponsor: New York State Department of Transportation
My responsibility: 50% of the contract.

3. *Center for Intermodal Freight Security and Mobility*,
Co-PI (PI: Jose Holguin-Veras),

- Time of award: September 2007 – August 2008 (1 year),
Funds: RPI total funds \$170,000
Agency Sponsor: U.S. Department of Transportation.
My responsibility: 50% of the contract.
4. *Safety treatment of urban arterial in New Jersey*,
Co-PI,
Time of award: January 1, 2008 – August 31, 2008,
Funds: Total Funds: \$20,000,
Agency Sponsor: NJDOT (Lead: Rutgers University).
My responsibility: 100% of the contract.
5. *Evaluating Ramp Metering Strategies*,
Co-PI,
Time of award: January 1, 2008 – December 31, 2008 (1 year;),
Funds: Total Funds: \$15,000,
Agency Sponsor: NJDOT (Lead: Rutgers University).
My responsibility: 100% of the contract.
6. *Identification and Modeling of Next Generation Travel Guidance Systems*
Sole PI,
Time of award: October 1, 2007 – September 30, 2008 (1 year),
Funds: Total Project Costs: \$34,000
Program: September 11 Memorial Program, NYMTC/UTRC,
My responsibility: 100% of the contract.
7. *A Comprehensive Survey of Emerging Technology in New York Metropolitan Area*,
PI (Co-PI: Jose Holguin-Veras),
Time of award: April 26, 2007 – April 25, 2008 (1 year),
Funds: RPI total funds \$189,000
Agency Sponsor: New York Metropolitan Transportation Council.
My responsibility: 90% of the contract.
8. *A Decision Support Tool to Assess the Importance of Transportation Facilities*,
PI (Co-PI: Didier Valdes),
Time of award: January 1, 2007 – December 31, 2007 (1 year),
Funds: RPI total funds \$50,000
Agency Sponsor: University Transportation Research Center, Region 1.
My responsibility: 100% of the contract.
9. *Contending with Materiel Convergence: Optimal Control, Optimization of Supply Chains*,
Co-PI (Other PI's: Jose Holguin-Veras, Tricia Wachtendorf, Wayne Bequette and Didier Valdes),
Time of award: January 1, 2007 – December 31, 2009 (3 years),
Funds: Total Funds: \$750,000; RPI total funds \$500,000

Agency Sponsor: Human and Social Dynamics (HSD) Program at National Science Foundation.

My responsibility: 20% of the contract.

10. *Characterization of Supply Chains in the Aftermath of an extreme event*, Co-PI (Other PI's: Jose Holguin-Veras, Tricia Wachtendorf),
Time of award: January 1, 2006 – July, 2007 (1 year; NCE),
Funds: Total Funds: \$88,943; RPI total funds \$63,943
Agency Sponsor: SGER Program at the National Science Foundation.
My responsibility: 45% of the contract.
11. *Integrated Supply Demand Models for Transportation Systems Management*, Sole PI,
Time of award: January 1, 2007 – December 31, 2007 (1 year;),
Funds: Total Funds: \$5,000,
Agency Sponsor: Selected for the Emerging Scholars Program at UTRC.
My responsibility: 100% of the contract.

• at UT

1. *Application of Credit-Based Congestion Pricing in Texas: Operational considerations and impacts*, for Texas Dept. of Transportation (TxDOT) (August 2003 - July 2005)
2. *The Role of Toll Projects in Enhancing Texas Transportation*, for TxDOT (August 2003 - July 2005)
3. *Robust design and evaluation of Transportation Networks with Equilibrium under demand uncertainty*, for Southwest University Transportation Center (SWUTC) (August 2003 - April 2005)
4. *Retrofit of Dynamic Traffic Models*, for Mid America Earthquake(MAE) Center (November 2003 - July 2005)
5. *Accounting for Information and Recourse in the Robust Design and Optimization of Stochastic Transportation Networks*, National Science Foundation (NSF) CAREER Award (June 2004 - July 2005)

• at UIUC

1. *Development of Mathematical and Simulation Models for Transportation Network Systems Experiencing Information Provision*, for the UIUC Research Board, (January 2002 - July 2003)
2. *Multiple Stage Optimization of Stochastic Dynamic Transportation Networks*, for the National Science Foundation (NSF), (March 2002 - January 2004)
3. *Regional Traffic Simulation with Traffic Signal Priority*, for the Chicago Transportation Regional Authority, (February 2002 - March 2003)

• at IIT, Madras

1. *Feasibility Study of Planning and Design of the New International Airport at Bangalore*, for Hochtief, Chennai, August 2000 - February 2001.

INVITED PRESENTATIONS - KEYNOTES, PLENARY TALKS, INVITED SEMINARS

1. Stochastic Dynamic Transportation Network Modeling: Key Challenges and Research Opportunities. Indian Institute of Technology, Mumbai, India, March 4, 2004.
2. Online Transportation Network Management: Algorithms and Solution Techniques. Decision Science and Engineering Systems seminar at Rensselaer Polytechnic Institute, October 18, 2005.
3. Accounting for Uncertainty, Robustness and Online Information in Transportation Networks. University of Illinois at Urbana Champaign. April 6, 2005.
4. Accounting for Uncertainty, Robustness and Online Information in Transportation Networks. Rensselaer Polytechnic Institute. March 30, 2005.
5. Robust Transportation Network Analysis: Formulations, solution methodologies and implementations. 84th Transportation Research Board Conference Doctoral Seminar. January, 2005.
6. Opportunities in Transportation Engineering Research. University of Puerto Rico Mayaguez in both the Civil engineering and the Industrial Engineering departments, May 5, 6, 2006.
7. Supply Chain Issues in the Hurricane Katrina Debacle: Insights and Lessons Learned. Tata Institute of Social Sciences (TISS) Bombay, India. December 22, 2007.
8. Connectivity of Vehicular Ad Hoc Networks: Analytical Characterization. IIT Bombay, India. December 17, 2007.
9. Dynamic Traffic Assignment: Overview, Functionalities, Model and Algorithms for Transportation Planning. A 3 hour Invited Talk at NY Best Practice Model (BPM) Users Meeting, New York City. August 27, 2007.
10. Modeling the Critical Goods Supply Chain in Hurricane Katrina: An integrated Engineering-Social Science Perspective. Workshop in National Science Foundation (NSF) Natural and Man-made Hazards Conference in Kampala, Uganda. July 21, 2007.
11. Intelligent Transportation Systems for Transportation Demand Management. New York Metropolitan Transportation Council (NYMTC), New York City. April 3, 2007.
12. Stochastic and Dynamic Transportation Networks: Overview and Current Research Challenges. Transportation Seminar Series, University of Vermont National Transportation Center, Burlington, VT. February 23, 2007.
13. Non-equilibrium in dynamic traffic networks: New Results from an experimental network game. Indian Institute of Technology, Mumbai, January 15, 2007.
14. Contending with Emergency Logistics Issues in Hurricane Katrina: An integrated Engineering-Social Science Perspective. Tata Institute of Social Sciences, Bombay, India. August 22, 2008.
15. Issues related to transportation modeling in Emergency Logistics. A 3hr invited workshop speaker for the M.S. students at Tata Institute of Social Sciences, Bombay, India as part of the Logistics Management in Disaster Situations course. August 21, 2008.

16. An emerging three-tier architecture for prescriptive traveler systems. Indian Institute of Technology, Bombay, India. August 13, 2008.
17. Connectivity Issues in Vehicular Ad Hoc Networks: Analytical Characterization. Laboratory of Transportation Economics, Lyon, France. June 16, 2008.
18. Convergence of Real Time Information, Systems Management and Traffic Operations. CIRCA 08 NanoTech Center, SUNY Albany. May 20, 2008.
19. Modeling Vulnerability in Critical Infrastructure Protection. Invited Talk in Tutorial Session on Critical Infrastructure Protection, Transportation Research Board Conference, National Research Council. Washington D.C. January 15, 2008.
20. Understanding the Logistics Issues in Humanitarian Supply Chains. Business School at Purdue University, Calumet. October 11, 2009.
21. Issues related to transportation modeling in Hurricane Evacuation: An Interdisciplinary Approach. Purdue University. May 8, 2009.
22. Modeling Uncertainty in Network Evacuation Problems. National Institute of Technology, Warangal, India. January 3, 2009.
23. Simulation of the Urban Off-Peak Delivery Strategies: Results from a recent pilot test in New York City. TPMDC conference at Indian Institute of Technology, Bombay, India. December 16, 2010.
24. Emergency Logistics Issues in Hurricane Evacuation. Disasters Roundtable at Tata Institute of Social Science. Mumbai, India. December 14, 2010.
25. Transportation Networks, Communication and Computation: An Integrative Perspective. Midwest University-Industry Summit. Purdue University. March 31, 2010.
26. Complementarity Formulations for the Dynamic Traffic Equilibrium Problem. Invited talk at the NSF workshop on Route Guidance and Coordinated Traffic Control. Rutgers University. June 8, 2010.
27. Emergency Logistics Issues in Hurricane Evacuation. Disasters Roundtable at Tata Institute of Social Science. Mumbai, India. December 14, 2010.
28. Simulation of the Urban Off-Peak Delivery Strategies: Results from a recent pilot test in New York City. TPMDC conference at Indian Institute of Technology, Bombay, India. December 16, 2010.
29. Modeling Hurricane Evacuation Integrated with Enriched Household Level Behavior: Evidence from Hurricane Ivan and Katrina. King Monkut University, Bangkok, Thailand. December 13, 2011.
30. Integrating Household level behavior in an Agent based modeling framework. I Behavior in Networks (BiNs) workshop. University of Hong Kong. December 16, 2011.
31. Emerging Trends in Modeling Sustainability Issues in Transportation Systems. Plenary Talk at the Hong Kong Transportation Science Conference. Hong Kong, December 19, 2011.

32. Network Resilience in Disasters: An Interdisciplinary, International Perspective. Global Policy Research Institute, Purdue University. September 20, 2011.
33. Behavioral models for hurricane evacuation: A need for data collection in emerging countries. Indian Institute of Technology, Hyderabad, India. August 8, 2011.
34. Hurricane Evacuation Modeling from an Interdisciplinary Perspective. Technical University of Delft, Netherlands. July 13, 2011.
35. On the Price of Anarchy in Dynamic Equilibrium Problems. University of Illinois, Chicago Computational Transportation Systems IGERT Program. April 15, 2011.
36. Hurricane Evacuation Modeling from an Integrative Perspective. Department of Civil Engineering Distinguished Seminar Series, University of Wisconsin Milwaukee, Milwaukee, November 30, 2012.
37. OR in Transportation and Transportation in OR : Interdisciplinary Problems in Transportation Research. INFORMS Purdue Chapter Guest Lecture, Purdue University, November 7, 2012.
38. Warning Information Diffusion in a Social Network for Emergency Evacuation. Emergency Preparedness Conference, MIDAS Center for Excellence, University of Pittsburgh, October 22, 2012.
39. The Large Scale Analysis of NYC Taxi Cab Data for Link Travel Time Estimation. Australia Information and Communications Technology Research Center for Excellence (NICTA), Sydney, Australia, October 9, 2012.
40. The Use of Very Large Scale Geo Location Data for Activity Travel Analysis. Department of Computer Science, University of New South Wales, Sydney, Australia, October 4, 2012.
41. Integrative Sustainability Tools for Transportation Modeling. University of New South Wales Civil Engineering Department, Sydney, Australia, September 20, 2012
42. The use of GPS data for transportation applications: Emerging Ideas from two recent projects. Invited talk at Wuhan University, Wuhan, China. May 28, 2012.
43. The use of Very Large Scale Social Media Data for ITS Applications. Plenary Talk at the Beijing Jiatong ITS Workshop. Beijing, China, May 25, 2012.
44. Hurricane Evacuation Modeling from an Integrative Perspective: Current Approaches and Challenges. University of South Florida, Tampa. May 3, 2012.
45. Geo Location Data for Transportation Planning and Operations: Opportunities and Recent Results. ITS Happening! Seminar Series at Indian Institute of Technology, Madras, July 30, 2013.
46. The Use of Very Large Scale Geo Location Data for Intelligent Transportation Systems Applications. Bruce Podwal Distinguished Lecture at City College of New York, New York City, March 12, 2013.
47. Emerging Issues in Interdisciplinary Evacuation Modeling Research. Masterclass at Technical University, Delft, Netherlands. February 19, 2013.

48. Big Data for Transportation Systems Analysis: Applications to Urban Systems Modeling. DIMACS Workshop on Sustainable Human Environments, Rutgers, April 24, 2014.
49. Data Analytics for Urban Innovations: State of the Art. Tongji University, Shanghai, China, May 29, 2014.
50. Integrative, Interdisciplinary Research Issues in Evacuation Modeling. Keynote Talk at the Minisymposium on Evacuation Modeling, Kos Island, Greece, June 6, 2014.
51. Dynamic Network Equilibrium in Transportation Problems: Recent Advances and Open Questions. Semi-Plenary Talk at the International Conference on Engineering and Applied Sciences Optimization (OPTI 2014), Kos Island, Greece, June 7, 2014.
52. A coupled hierarchical model integrating household level behavior with large scale city wide model for urban evacuations. Fulbright Catedra 2014 at Uninorte, Colombia, October 1, 2014.
53. (Issues to consider) in the use of large scale geo-location data for smart infrastructure solutions. VACCINE Annual Meeting, Purdue University, October 16, 2014.
54. Keynote Talk: Convergence of Big Data and Networks for Sustainable Cities. Second International Conference on Urban Sustainability. Hong Kong. Jan 4, 2015. Declined.
55. Big Data Transportation Analytics: Summary of Research Questions, ITE Seminar, Purdue University, March 28, 2015.
56. Big Data Transportation Analytics: Recent Explorations and Future Opportunities, Tongji University, April 11, 2015.
57. Big Data Transportation Analytics: Recent Explorations and Future Opportunities, Southeast University, April 14, 2015.
58. Modeling Flow, Dynamics and Strategic Interaction in Coupled Transportation Networks, International Symposium on Water, Feedbacks and Complexity, Seoul, June 29, 2015.
59. Tutorial on “Introduction to Complex Networks”, Korea University, Seoul, July 1, 2015.
60. Big Data Transportation Analytics: An Opportunity or a Passing Trend?, University of Seoul, July 3, 2015.
61. Data Science for Taxi Markets, Lyft, July 18, 2015.
62. Inequalities in Coupled Complex Networks: Some examples using real world data, Environmental and Ecological Science (EES) Colloquium, September 21, 2015.
63. Data Science for Smart Transportation Solutions, Southeast University, Nanjing, China, October 23, 2015.
64. A vision for Smart Mobility and Intelligent Transportation Systems in the era of Big Data, Invited by the Ministry of Transportation, Government of Vietnam, Hanoi, November 26, 2015.
65. Overview of Transportation Research at Purdue University, Hanoi Architectural University, Hanoi, November 26, 2015.

66. Overview of Transportation Research at Purdue University, University of Transportation and Communication, Hanoi, November 27, 2015.
67. Interplay of structure and function in the failure of complex road networks, ITS Seminar, UC Berkeley, April 1, 2016.
68. Connected Travelers: A model for dynamic speed limit accounting for mobility and sustainability goals, Zhejiang University, China, April 24, 2016.
69. Big Data in Transportation Modeling: Emerging Ideas and a summary of recent research, Zhejiang University, China, April 25, 2016.
70. Big Data Research in Transportation Planning and Operations, Shanghai Maritime Transportation University, Shanghai, China, May 4, 2016.
71. Smart Mobility Solutions for Urban Transportation: Convergence of Big Data, Ride Sharing and Autonomous Vehicles, Tsinghua University, July 11, 2016.
72. Data Science as a panacea to Urban Mobility Challenges: Is it here to stay?, BD-Smart International workshop, Shanghai, July 17, 2016.
73. Smart Mobility Solutions for Urban Transportation: Convergence of Big Data, Connected Technologies and Shared Mobility, Big Data Institute Symposium, Tsinghua University, October 28, 2016.
74. Convergence of Smarter mobility technologies, network models and big data, Smart Transportation Technologies Symposium, NYU-AD, Abu Dhabi, November 20-21, 2016.
75. High Performance Computing Models for Integrative Behaviorally Enriched Simulation Models in Disaster Management, International Symposium on Disaster Management, Kobe, Japan, December 6-10, 2016.
76. Smart Mobility Solutions in a Connected and Autonomous Environment, Transportation Seminar, Tongji University, Shanghai, March 31, 2017.
77. Recent Advances in Smart and Connected Mobility Systems, Invited Seminar, School of Transportation Engineering, ChangAn University, April 10, 2017.
78. Convergence of Networks and Smart Mobility technologies: Recent Advances, Invited Seminar, State University of New York Buffalo, May 2, 2017.
79. Resilience of Cities as Coupled Systems. Invited Seminar, School of Management, Beihang University, June 29, 2017.
80. Network Modeling and Big Data for Smart Transportation Analytics. Distinguished Seminar, School of Automotive Engineering, ChangAn University, July 5, 2017.
81. Social Media Data Analytics for Disasters. Invited Seminar, Workshop on Social Media Analytics and Decision Support Systems, San Diego State University, August 15, 2017.
82. Implications of Big Data Analytics for Transportation Planning. Invited Seminar, Universidad Nacional, Medellin, September 12, 2017.

83. Mobility on Demand Services for Megacities. *Keynote* at the 3rd International Forum on Transport Big Data Sharing and Collaboration Conference, Shenzhen, China, Nov 17, 2017.
84. Big Data Analytics for Smarter Transportation Systems Planning. Invited Seminar, Hefei University of Technology, Hefei, China, Nov 20, 2017.
85. Convergence of Networks, Mobility on Demand Services and Smarter Transportation Technologies. *Keynote* at the 2018 ITS workshop at 9th International Conference on Communication Systems and Networks (COMSNETS), Bengaluru, India, Jan 4, 2018.
86. Crowdshipping Models as a sustainable last mile delivery alternative. Invited Seminar, Indian School of Business, Hyderabad, India, January 22, 2018.
87. Emerging Trends in Transportation Research. Invited lecture to undergraduate students, Indian Institute of Technology, Tirupati, India, February 2, 2018.
88. Networks, Smart Mobility and Autonomous Transportation: Recent Advances. C2SMART Distinguished Seminar Series, New York University, New York, February 23, 2018.

TEACHING ABILITY AND EFFECTIVENESS

Course Number and Title	Semester/Year	No of Students	Ratings for Course/Instructor (out of 5.0)
CE 597: The Science and Business of Logistics Systems (Online and On campus)	Fall 15, 17	12, 9	4.4/4.5, 4.3/4.0
CE 398: Introduction to Civil Engineering Systems Design	Spring 10, 11, 12, 13, 14, 15	119, 112, 128, 105, 69, 73	3.2/3.7, 3.0/3.2, 3.2/3.4, 4.0/4.0, 3.8/3.9
CE 497: Australia Study Abroad: Sustainability and its Impact in Civil Engineering	Summer 13	26	5.0/4.6
CE 597: Dynamic Transportation Models	Spring 2011, 2013	8, 7	4.5/4.5, 4.4/4.4.
CE 597: Freight Transportation and Commodity Flows	Fall 10	7	4.1/4.6
CE 661: Algorithms in Transportation	Spring 10, 12, 14, Fall 2017	6, 8, 5, 8	4.7/4.9, 4.5/4.9, 4.5/4.9, 4.8/4.5
CIVL 2330: Introduction to Civil Engineering	Spring 09	49	3.9/4.1
CIVL 2030: Introduction to Transportation Engineering	Fall 06, 07, 08	79, 79, 78	3.5/3.8, 3.8/3.7, 3.8/3.8
CIVL 6270: Traffic Control Systems and Operations	Spring 07	13	3.9/3.9
CIVL 6991: Dynamic Transportation Modeling	Spring 2006	8	5.0/4.8
CIVL 6991: Critical Issues in Transportation Systems	Spring 08	7	4.1/4.0
CIVL 6963: Transportation Algorithms	Spring 09	11	4.2/4.4

• **Other Teaching Related Activities**

1. Industrial Design Fall 2000
Teaching assistant for “Industrial Design (ID 110)”,
2. Short term course on Sustainability of Urban Transportation Systems Nov. 2000 - January 2001
Prepared the lecture notes and presentations for Prof. Thamizh V. Arasan at IIT, Madras.
3. Transportation Network Analysis Fall 2003
Teaching assistant for “Transportation Network Analysis (CE 397TNA)”
4. ExCEED Teaching Workshop August 2004
Participated in the ASCE ExCEED Teaching Workshop at Northeastern University, Boston.

5. Teaching Effectiveness Colloquium October 2004
Nominated by Department of Civil Engineering chair, UT to attend the VI INFORMS Teaching Effectiveness Colloquium at Denver.
6. ASEE National Teaching Effectiveness Workshop (NETI-I) January 2014
Sponsored by the College of Engineering to participate in the NETI-I workshop to share teaching experience. Attended in New Orleans.
7. Short course on “Computational Transportation Science” May 2014
Department of Systems Engineering, Uninorte, Colombia
8. Short course on “Transportation Network Analysis” May 2014, June 2016
Department of Civil Engineering, Tsinghua University, Beijing, China
9. Short course on “Data Mining in Intelligent Transportation Systems” October 2015
School of Transportation Engineering, Southeast University, Nanjing, China

DOCTORAL STUDENTS SUPERVISED

1. Dr. Gopal Patil, December 2007. Associate Professor, Indian Institute of Technology, Bombay, India
2. Dr. Lili Du, August 2008. Associate Professor, University of Florida
3. Dr. Gitakrishnan Ramadurai, August 2009. Associate Professor, Indian Institute of Technology, Madras, India
4. Dr. Bo Zhang, August 2011(co-advisor: Prof. Victor Chan). Operations Research Analyst, American Airlines
5. Dr. Samiul Hasan, August 2013. Assistant Professor, University of Central Florida
6. Dr. Kien Doan, August 2013. Deputy Director, Urban Civil Works Construction Management Authority, Ho Chi Minh City, Vietnam
7. Dr. Abdul Aziz, August 2014. Research Scientist, Oak Ridge National Lab
8. Dr. Rodrigo Mesa-Arango, May 2015. Assistant Professor, Florida Institute of Technology
9. Dr. Feng Zhu, August 2016. Assistant Professor, Nanyang Technological University (NTU), Singapore
10. Dr. Arif Mohaimin Sadri, December 2016. Visiting Assistant Professor, Ross-Hulman Institute of Technology
11. Dr. Xianyuan Zhan, August 2017. Microsoft Research, Beijing
12. Wenbo Zhang, Fall 2013-present.
13. Tho Le, Fall 2014 - present.
14. Xinwu Qian, Fall 2014-present.
15. Hemant Gehlot, Fall 2015-present.

16. Takahiro Yabe, Fall 2017-present.
17. Lu Ling, Fall 2018-present
18. Jiawei Xu, Fall 2018-present
19. Zengxiang Lei, Fall 2018-present

VISITING FACULTY, VISITING STUDENTS AND POST-DOCTORAL RESEARCH ASSOCIATES

1. Dr. Tom Mathew, Professor, IIT Bombay, India, Summer 2006 and Summer 2008
2. Dr. Ivan Sarmiento, Department Head, Civil Engineering, Universidad Nacional Medellin, Colombia, Summer 2012
3. Dr. Ruimin Li, Associate Professor, Tsinghua University, China, December 2012
4. Dr. Pedro Wightman, Department Head, Systems Engineering, Uninorte, Colombia, December 2012 and Summer 2013
5. Dr. Shifeng Niu, Chang'An University, China, March 2018-March 2019
6. Dr. Lanshan Han, Post Doctoral Fellow, August 2010 - August 2011
7. Dr. Dheeraj Kumar, Post Doctoral Fellow, May 2017-Present
8. Yuqin Wang, Tongji University, China, September 2015-April 2016
9. Xiqiong Zhang, Changan University, China, March-September 2016
10. Fenfan Yan, Tongji University, China, September 2016 - August 2017
11. Yi Zhao, Southeast University, China, August 2016 - July 2017
12. Rui Chen, Tsinghua University, China, September 2016 - August 2017
13. Yayoe Li, China Science and Technology University, China, October 2016 - September 2017
14. Yuehwern Chen, Shanghai Jiaotong University, China, October 2016-September 2017
15. William Albiero Valle, Universidad Nacional, Medellin, Colombia, December 2016 - March 2017
16. Chao Wang, Southeast University, China, July 2017-March 2018
17. Zhiyong Liu, Tsinghua University, China, August 2017
18. Yunlong An, Tsinghua University, China, August - September 2017
19. Yilan Cui, Tsinghua University, China, September 2017-August 2018
20. Zhile Wang, Beijing Institute of Technology, China, October 2017-October 2018

21. Bao Jie, Southeast University, China, November 2017-November 2018
22. Yingjiu Pan, Southeast University, China, November 2017-November 2018

M.S. STUDENTS WITH THESIS

• **Purdue University**

1. Binh Luong, August 2011
2. Xianyuan Zhan, December 2012
3. Sadri Arif Mohaimin, December 2012
4. Tawfiq Sarwar, May 2013
5. Xinwu Qian, May 2014
6. Pulkit Parikh, December 2015
7. Fasil Sagir, August 2016 - present
8. Nishtha Mahajan, August 2017-present
9. Yunchang Zhang, August 2017- present
10. Runjia Du, August 2017 - present
11. Maria Ponton, August 2018 - present

• **Rensselaer Polytechnic Institute**

1. Xiaquan Liu, December 2009
2. Kien Doan, December 2009
3. Jhael Isa, December 2009
4. Ashley Corker, May 2009
5. Lili Du, December 2007
6. Andrew Blaisdell, Summer 2007
7. Courtney Sweeney, Summer 2007

UNDERGRADUATE STUDENT RESEARCH

1. Matthew Chmura, Fall 2008
2. Yuo Chan, Summer/Fall 2008
3. Michael Bell, Fall 2007/Spring 2008
4. Steven Mercer, Spring 2008
5. Xavier Hairston-Khan, Fall 2007
6. Hope Gist, Fall 2007

7. Michael Yatauro (ECSE), Summer 2007
8. Andrew Blaisdell, Spring 2006
9. Michael Thomas, Spring 2006
10. Ben Bowman, Spring 2017-present

PROFESSIONAL ACTIVITIES

- **Editorship of Journals:**

1. **Academic Editor**, *PLOS ONE*, November 2015 - present
2. **Associate Editor**, *Transportmetrica Part B*, July 2012 - present
3. **Series Editor**, *Urban Mobility Networks Book Series*, Elsevier Publications, March 2017-present
4. **Area Editor**, *Networks and Spatial Economics*, August 2008 - August 2017
5. **Editor**, Overview Papers, *Transportation Research Part-C*, January 2008 - December 2011
6. Editorial Advisory Board, *Transportation Research Part B*, January 2011 - Present
7. Editorial Advisory Board, *Transportation Research Part C*, January 2013 - Present
8. Guest Editor, *IEEE Transactions of ITS, Special Issue on Exploiting Wireless Communication Technologies in Vehicular Transportation Networks*, July 2009 (co-edited with Yibing Wang, Monash University and Tricia Chigan, Michigan Technological University)
9. Guest Editor, *Transportation Research Part C, Special Issue on Wireless Vehicular Networks*, June 2008 (co-edited with Umit Ozgunar, Ohio State University)
10. Associate Editor, IEEE International Conference on Intelligent Transportation Systems (ITSC) Conference, 2008-2013

- **Chair of Conference/Workshop Committees:**

1. Co-Chair, International Workshop on Big Data Analytics for Smart Transportation (BD-SMART), Shanghai, China, July 16-17, 2016
2. Chair, Purdue-IITM Workshop on Urban Systems Sustainability, Chennai, India, February 13, 2014
3. Co-Chair, NSF Workshop on Complexity Science Applied to Coupled Infrastructure Systems, Martha's Vineyard, June 3-4, 2012
4. Co-Convenor, 4th International Symposium of Dynamic Traffic Assignment, Martha's Vineyard, June 3-7, 2012
5. Co-Chair, Network Resilience Conference from an Interdisciplinary Perspective, Purdue University, April 7, 2011

6. Chair, Workshop on Emerging Technologies for Next Generation Transportation Systems, September 28, 2008
7. Intelligent Transportation Systems SIG Vice-Chair (elected), INFORMS. 2007 - 2009.
8. Intelligent Transportation Systems SIG Chair (elected), INFORMS. 2009 - 2011.
9. Member, Scientific Advisory Committee, International Symposium of Dynamic Traffic Assignment, 2012-present
10. Member, Scientific Committee, Mobility 2020: Traffic, Transportation, and Logistics in a Cyber-Connected World, 2017
11. Advisory Committee Member, Trends and Recent Advances in Civil Engineering, TRACE-2010, National Institute of Technology, Calicut, India, December 2010
12. Member, International Technical Committee, International Conference on Recent Issues and Solution Methodologies in Transportation Engineering and Planning: Sustainable Transport, RISTEP 2010, June 15-18, 2010
13. Member of the Technical Program Committee (TPC) of IEEE Vehicular Transportation Conference 2007 in Baltimore, MD.
14. Member of the Organizing Committee for Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 08), December 3-6, 2008, IIT Bombay, Mumbai, India.
15. Member of the Technical Program Committee (TPC) of IEEE Vehicular Transportation Conference, Baltimore, MD, 2007
16. Member of the Technical Program Committee (TPC) of IEEE ITSC Conference, 2007-2013
17. Session Chair for various sessions at INFORMS Annual meetings, Transportation Research Board Annual Conference, 2005 to present.

• **Journals/Conferences refereed:**

Reviewer of Journals:

Transportation Research Part B, Part C, Part E

ASCE Journal of Transportation Engineering

Advances in Transportation Studies - An International Journal

Transportation Research Record

Transportation Science

Operations Research

Networks and Spatial Economics

Institute of Industrial Engineers (IIE) Journal: Part A

IEEE Journal of Intelligent Transportation Systems

IEEE Transactions of Vehicular Technology
ASCE Journal of Infrastructure Engineering
International Journal of Production Economics
IEEE Conference of Intelligent Transportation Systems
World Conference in Transportation Research
IEEE Conference of VTC
IEEE Transactions of Big Data
Transportation Research Board Conference

• **Books and Manuscript Reviewer:**

Mid America Earthquake Center: Reviewer of reports related to hazard mitigation in transportation networks

Reviewer of M.S. Thesis for Milton Pikarsky Award, Council of University Transportation Centers (CUTC)- 2006-present.

Reviewer of various transportation/optimization related textbooks for Springer - Fall 2007-present.

• **Proposal, Promotion and Award Committees:**

1. Council of University Transportation Centers (CUTC) Award Panel, 2006-present
2. Committee Member, INFORMS Transportation Science and Logistics (TSL) PhD Dissertation Prize Selection Committee, 2012, 2013
3. Award panel for the NYMTC September 11 Memorial Program Academic Initiative, March 2008
4. CONSOLIDER Program (Funding for large integrative projects of the order of 5 million Euros), Spanish Ministry of Science and Education (June/July 2008)
5. University of Vermont Transportation Center (March 2007)
6. Annual Proposal Review for NEXTRANS, Purdue University
7. US National Science Foundation Review Panels, 2006-Present (17 panels)
8. New England University Transportation Center
9. Portuguese Foundation for Science and Technology (FCT), Portuguese Research Council (2012, 2013)
10. CONNECT, California University Transportation Center, UC Berkeley - 2014
11. Marsden Fund, Royal Society of New Zealand, May 2012-Present
12. Research Grants Council, Hong Kong - 2008-present (annually around 5-10 proposals)
13. Qatar National Research Foundation, May 2012-Present

14. King Fahd University Research Proposals, Saudi Arabia, May 2012-Present
15. DOE ARPANET Program, Spring 2015
16. Australian Research Council, May 2015-Present
17. Reviewer of faculty promotion cases in the US, Australia and Europe, May 2013-Present (4 cases)
18. Expert witness for legal cases in transportation engineering and policy

DEPARTMENT AND UNIVERSITY SERVICE

• **Purdue University**

1. Organizing committee, The 5th Midwest workshop on Control and Game Theory, April 30-May 1, 2016
2. Co-Lead, Sustainable Communities Cluster Hire (a University wide Initiative to hire seven faculty and lead research efforts in this interdisciplinary area) August 2012 - Present
3. Member, CE Primary Committee, January 2011 - Present
4. Mentor to multiple Assistant Professors at Purdue and other universities, January 2011 - Present
5. Chair, Study Abroad Committee, January 2013 - May 2016
6. Member, Civil Engineering Strategic Planning Committee, January 2011 - May 2013
7. Member, Global Engineering Program, August 2013-May 2016
8. Co-chair, Integrated Systems Analysis and Sustainability Faculty Search Committee August 2013 - May 2014
9. Member, CE Promotions and Tenure Evaluation Committee, January 2011 - May 2011
10. Member, Environmental Engineering Systems, Faculty Search Committee, January 2011 - August 2011
11. Member, Graduate Committee, School of Civil Engineering, August 2009-July 2013
12. Graduate coordinator, Transportation Infrastructure Systems Group, August 2009-July 2013
13. Faculty Representative of Civil Engineering, Convocation Ceremony in December 2009

• **Rensselaer Polytechnic Institute**

1. Taught the transportation component of the 'Instrumentation and Sensors' class every Fall. (Approximately 2 lectures and related transportation project), 2005-2009.
2. Faculty Advisor of the Institute of Transportation Engineers Chapter at RPI, 2005-2008
3. Faculty Mentor for the NYSDOT-RPI Internship Program, 2005-2008

4. Undergraduate Curriculum Committee, November 2005 to July 2009
5. Faculty Representative at the Engineer's Day and Medallion Open House in 2005.
6. Advisor for Institute Advancement for President's trip to India in March 2006.
7. CEE Sabbatical Committee, November 2006 - May 2007
8. Organizer of Transportation Seminar, Fall 2007.
9. Department Head Search Committee, August 2007 - March 2009
10. Transportation Faculty Search Committee, October 2007 - May 2008
11. Co-chair of the Faculty peer support committee, January 2008 - August 2008. Responsible for producing a mentorship document for the CEE Department Head.
12. Graduate Program Committee. January 2008 - August 2009

• **Memberships**

Committee on Freight Transportation Planning and Logistics (ATO15), Transportation Research Board, National Research Council (January 2012 - Present)

Committee on Evacuation and Emergency Management, Transportation Research Board, National Research Council, April 2015-Present

Network Modeling Committee (ADB30), Transportation Research Board, National Research Council (April 2006 - April 2015)

Joint Subcommittee on Road Pricing, Transportation Research Board, National Research Council Transportation Research Board

Institute for Operations Research and Management Science (INFORMS)

American Society of Civil Engineers (ASCE)

Transportation Research Board (TRB)

Institute of Electrical and Electronics Engineers (IEEE)