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## Education

Ph.D., Transportation Planning and Engineering, Polytechnic University of NYU, New York, June 1994, Dissertation: A Probabilistic Model of Breakdown at Freeway-Merge Junctions

M.S., Civil Engineering, Auburn University, Auburn, Alabama, June 1990, Thesis: Development and Application of a Methodology for Evaluating Traffic Congestion at School Locations

Graduate Diploma, Surveying, and Environmental Engineering, (five year program) Aristotle University of Thessaloniki, Greece, June 1987, Thesis: Development of Speed-Flow Relationships for Suburban Highways

## Employment History

Director, UF Transportation Institute (UFTI), and Professor, Civil and Coastal Engineering, University of Florida (since July 2013)

Interim Department Chair, Industrial and Systems Engineering (ISE) Department, University of Florida (August 2016-June 2018)

Director, Transportation Research Center (TRC), and Professor, Civil and Coastal Engineering, University of Florida (June 2008 – July 2013)

Director, Transportation Research Center (TRC), and Associate Professor, Civil and Coastal Engineering, University of Florida (July 2004 - May 2008)

Interim Director, Pennsylvania Transportation Institute (PTI), Penn State University (August 2003 - June 2004)

Associate Director, PTI, Penn State University (July 2002 - August 2003)

Associate Professor (July 2000-June 2004), and Assistant Professor (Aug. 1994 - June 2000), Department of Civil and Environmental Engineering, PSU; Research Associate, PTI (Aug. 1994 - June 2001)

Transportation Engineer, Garmen Associates, Montville, New Jersey (Sept. 1993 - Aug. 1994)

## Honors and Awards

2015 James Laurie Prize, American Society of Civil Engineering (ASCE)

2015 Ethel S. Birchland Lifetime Achievement Award (ARTBA)

2010 Best Model Development Paper Award, for the paper "A Driver Behavior Based Lane-Changing Model and Its Implementation in CORSIM," by Daniel Jian Sun and Lily Elefteriadou, Joint Subcommittee on Traffic Simulation, Transportation Research Board, January 2010

Penn State Engineering Society (PSES) – 2003 Outstanding Research Award

Fulbright Scholar – Technical University Delft, Netherlands, September – December 2001

Transportation Research Board's Fred Burggraf Award for excellence in transportation research, for the paper titled "Development of a New Procedure for Evaluating the Horizontal Alignment Design Consistency of Two-Lane Rural Highways," Transportation Research Record: Journal of the Transportation Research Board, No 1737, National Academy Press, 2000, pp. 9-17 (with former Ph.D. student J. McFadden)

## Refereed Journal Publications

1. Li, Z., M. Pourmehrab, L. Elefteriadou, S. Ranka, "Intersection Control Optimization for Automated Vehicles Using Genetic Algorithm", Accepted for publication, ASCE Journal of Transportation Engineering, June 2018.
2. Omidvar, A., M. Pourmehrab, P. Emami, R. Kiriazes, J. Esposito, C. Letter, L. Elefteriadou, C. Crane, S. Ranka, "Deployment and Testing of Optimized Autonomous and Connected Vehicle Trajectories at a Closed-Course Signalized Intersection", accepted for publication, Journal of the Transportation Research Board, February 2018.
3. P. Emami, L. Elefteriadou, and S. Ranka, Tracking Vehicles Equipped with Dedicated Short-Range Communication at Traffic Intersections, Seventh ACM International Symposium on Design and Analysis of Intelligent Vehicular Networks and Applications (DIVANet'17), 2017.
4. M. Pourmehrab, L. Elefteriadou, and S. Ranka, Smart Intersection Control Algorithms for Automated Vehicles, Tenth International Conference on Contemporary Computing (IC3 2017), 2017, November 2017.
5. Letter, C., L. Elefteriadou "Efficient Control of Fully Automated Connected Vehicles at Freeway Merge Segments", Transportation Research Part C, Volume 80, July 2017, pp. 190-205.
6. Chen, Z., G. DeAndrade, Y. Yin, L. Elefteriadou "Multiclass Traffic Assignment Problem with Flow-Dependent Passenger Car Equivalent (PCE) Value of Trucks", Journal of the Transportation Research Board of the National Academies, No. 2667, 2017, pp. 131-141.
7. Zheng, Y., G. DeAndrade, M. Armstrong, L. Elefteriadou "Proposed Framework for Evaluating

Spillover in the HCM", Journal of the Transportation Research Board of the National Academies, No. 2615, 2017, pp. 148-158.

8. Zheng, Y., T. Chase, L. Elefteriadou, V. Sisiopiku, B. Schroeder, "Driver Types and Their Behaviors Within A High Level of Pedestrian Activity Environment", Transportation Letters: the International Journal of Transportation Research, Volume 9, Issue 1, January 2017.
9. Zheng, Y., L. Elefteriadou, "A Model of Pedestrian Delay at Unsignalized Intersections in Urban Networks, Transportation Research: Part B 100 (2017) pp. 138-155.
10. Kondyli, A., B. St. George, L. Elefteriadou, G. Bonyani, "Defining, Measuring and Modeling Capacity for The Highway Capacity Manual", ASCE Journal of Transportation Engineering, September 2016.
11. Kondyli, A., B. St. George, L. Elefteriadou, "Comparison of Travel Time Measurement Methods Along Freeway and Arterial Facilities", accepted for publication in the Transportation Letters: the International Journal of Transportation Research, September 2016.
12. Chen, X., M. Hadi, Y. Xiao, L. Elefteriadou, "Development of Macroscopic Emission Estimation Model Based on Microscopic Operating Modes", Journal of the Transportation Research Board, Journal of the Transportation Research Board of the National Academies, Washington, DC, August 2016, No 2570, pages 39–47.
13. Michalaka, D., R. Steiner, L. Elefteriadou, "Roundabouts as a Form of Access Management", Transportation Research Record: Journal of the Transportation Research Board of the National Academies, No 2556, Washington, DC, February 2016.
14. Zheng, Y., Chase, R.T., Elefteriadou, L., Schroeder, B., Sisiopiku, V.P., "Modeling Pedestrian-Vehicle Interactions Outside of Crosswalks", Simulation Modelling Practice and Theory, Volume 59, December 2015, Pages 89–101.
15. Mamidipalli, S., V. Sisiopiku, B. Schroeder, L. Elefteriadou, K. Salamati, N. Roupail, "A Probit Based Pedestrian Gap Acceptance Model for Mid-Block Crossing Locations", Journal of the Transportation Research Board of the National Academies, Washington, DC, December 2015, No 2519, pages 128–136.
16. Hill, C., L. Elefteriadou, A. Kondyli, "Exploratory Analysis of Lane Changing on Freeways Based on Driver Behavior" ASCE Journal of Transportation Engineering, Volume 141, Issue 4, April 2015.
17. Mamidipalli, S., Sisiopiku, V.P., Schroeder, B., and Elefteriadou, L. "A Review of Analysis Techniques and Data Collection Methods for Modeling Pedestrian Crossing Behaviors", Journal of Multidisciplinary Engineering Science and Technology, Vol. 2 Issue 2, February 2015, pp. 225-232
18. Kondyli, A., Z. Li, L. Elefteriadou, "Quantifying weather impacts on traffic operations for implementation into Florida's travel time reliability model", Transportation Letters: the

International Journal of Transportation Research, December 2014.

19. Li, Z., L. Elefteriadou, S. Ranka, "Signal Control Optimization for Automated Vehicles at Isolated Signalized Intersections", *Transportation Research Part C, Volume 49*, pages 1-18, December 2014.
20. Soria, I., L. Elefteriadou, A. Kondyli "Assessment of Car-following Models By Driver Type and Under Different Weather and Traffic Conditions Using Data from an Instrumented Vehicle", *Simulation Modelling Practice and Theory 40* (2014) 208-220.
21. Kondyli, A., L. Elefteriadou, W. Brilon, F. Hall, B. Persaud, and S. Washburn "Enhancing Ramp Metering Algorithms with the Use of Probability of Breakdown Models", *ASCE Journal of Transportation Engineering, Volume 140, Number 4*, 9 pages, April 2014.
22. Kondyli, A., L. Elefteriadou, W. Brilon, F. Hall, B. Persaud, and S. Washburn "Development and evaluation of methods for constructing breakdown probability models" *ASCE Journal of Transportation Engineering, Volume 139, Number 9*, pp. 931-940, September 2013.
23. Lu, C., L. Elefteriadou, "An Investigation of Freeway Capacity Before and During Incidents", *Transportation Letters: The International Journal of Transportation Research, Volume 5, No. 3*, pp. 144-153, July 2013.
24. Li, Z., L. Elefteriadou, "Maximizing the Traffic Throughput of Turn Bays at a Signalized Intersection Approach", *ASCE Journal of Transportation Engineering, Volume 139, Number 5*, pp. 425-432, May 2013.
25. Fang, C., L. Elefteriadou, A. Elias, "An Evaluation of the HCM 2010 Operational Analysis Methodology for Interchange Ramp Terminals Using Field Data", *Transportation Research Record: Journal of the Transportation Research Board of the National Academies, No 2286*, Washington, DC, December 2012, pp. 1-11.
26. McLeod, D., L. Elefteriadou, L. Jin, "Travel Time Reliability as a Performance Measure: Applying Florida's Predictive Model to an Entire Freeway System", November 2012, *ITE Journal*, November 2012.
27. Sun, D., L. Elefteriadou, "Lane Changing Behavior on Urban Streets: An In-Vehicle Field Experiment Based Study", *Computer-Aided Civil and Infrastructure Engineering, Volume 27, Issue 7*, August 2012, pp. 525, 542.
28. Kondyli, A. and L. Elefteriadou, "Driver Behavior at Freeway-Ramp Merging Areas Based on Instrumented Vehicle Observations", *Transportation Letters, Volume 4, Issue 3*, July 2012, pp. 129-141.
29. Kondyli, A., I. Soria, A. Duret, L. Elefteriadou, "Sensitivity Analysis of CORSIM with Respect to the Process of Freeway Flow Breakdown at Bottleneck Locations", *Journal of Simulation Modeling Practice and Theory, Volume 22*, pp. 197-206, December 2011.

30. Heaslip, K., M. Jain, L. Elefteriadou, "Estimation of Arterial Work Zone Capacity Using Simulation", *Transportation Letters*, Volume 3, Issue 2, April 2011, pp. 123-134.
31. Kondyli, A., L. Elefteriadou, "Modeling Driver Behavior At Freeway-ramp Merges," *Transportation Research Record: Journal of the Transportation Research Board of the National Academies*, No 2249, Washington, DC, January 2011, pp. 29-37.
32. Sun, D., L. Elefteriadou, "Information Categorization Based on Driver Behavior for Urban Lane Changing Maneuvers," *Transportation Research Record: Journal of the Transportation Research Board of the National Academies*, No 2249, Washington, DC, January 2011, pp. 86-94.
33. Martin, B. B., and Lily Elefteriadou. "Driver Behavior and Advanced Driver Assistance Systems: An Exploratory Driving Simulator Study." *Advances in Transportation Studies Special 2010* (2010).
34. Sun, D., L. Elefteriadou, "Research and Implementation of Lane Changing Model Based on Driver Behavior" *Transportation Research Record: Journal of the Transportation Research Board*, No 2161, Transportation Research Board of the National Academies, Washington DC 2010, pp. 1-10 (Received the 2010 Best Model Development Paper Award by the Joint Subcommittee on Traffic Simulation).
35. Rebennack, S., A. Arulselvan, L. Elefteriadou, P.M. Pardalos, "Complexity Analysis for Maximum Flow Problems With Arc Reversals," *Journal of Combinatorial Optimization*, Volume 19, Number 2, February 2010, pp. 200-216.
36. Kim, J., L. Elefteriadou, "Estimation of Capacity of Two-Lane Two-Way Highways Using Simulation Model," *ASCE Journal of Transportation Engineering*, Vol. 136, Number 1, January 2010, pp. 61-66.
37. Heaslip, K., K. Kondyli, D. Arguea, L. Elefteriadou, F. Sullivan, "Estimation of Freeway Work Zone Capacity Through Simulation and Field Data," *Transportation Research Record 2130*, National Academy Press, 2009, pp. 16-24.
38. Kondyli, A., and L. Elefteriadou, "Driver Behavior at Freeway-Ramp Merging Areas: Focus Group Findings," *Transportation Research Record 2124*, National Academy Press, 2009, pp. 157-166.
39. Yeon, J., S. Hernandez, and L. Elefteriadou, "Differences in Freeway Capacity by Day of the Week, Time of Day, and Segment Type," *ASCE Journal of Transportation Engineering*, Vol. 135, Number 7, July 2009, pp. 416-426.
40. Fang, C. and L. Elefteriadou, "Capability-Enhanced Microscopic Simulation with Real-Time Traffic Signal Control," *IEEE Transactions on Intelligent Transportation Systems*, Volume 9, Number 4, December 2008.
41. Arulselvan, C.W. Commander, L. Elefteriadou, and P.M. Pardalos, "Detecting Critical Nodes in

- Sparse Graphs," *Computers and Operations Research* 36, August 2008, pp. 2193-2200.
42. Yeon, J., L. Elefteriadou, and S. Lawphongpanich, "Travel Time Estimation on a Freeway Using Discrete Time Markov Chains," *Transportation Research Part B*, Volume 42, No 4, May 2008, pp. 325-338.
  43. Marcuson, J.K., L. Elefteriadou, R. Dowling, "New Chapter 26 for the Highway Capacity Manual: Interchange Ramp Terminals," *ITE Journal*, June 2007, pp. 40-44.
  44. Lertworawanich, P., and L. Elefteriadou, "A Generalized Model for Estimating the Capacity of Freeway Weaving Segments," *ASCE Journal of Transportation Engineering*, Vol. 133, No. 3, March 2007, pp. 166-179.
  45. Pietrucha, M. T., E. Donnell, P. Lertworawanich, and L. Elefteriadou, "Effects of Traffic Characteristics and Mounting Location on the Visibility of On-Premise Commercial Signs," *ASCE Journal of Transportation Engineering*, Vol. 132, Number 11, November 2006, pp. 862-871.
  46. Fang, C. and L. Elefteriadou, "Development of an Optimization Methodology for Adaptive Traffic Signal Control at Diamond Interchanges," *ASCE Journal of Transportation Engineering*, Vol. 132, No. 8, August 2006, pp. 629-637.
  47. Fang, C. and L. Elefteriadou, "Some Guidelines for Selecting Micro-simulation Models for Interchange Traffic Operational Analysis," *ASCE Journal of Transportation Engineering*, Vol. 131, No. 7, July 2005, pp. 535-543.
  48. Elefteriadou L., C. Fang, R. Roess, and E. Prassas, "A Methodology for Evaluating the Operational Performance of Interchange Ramp Terminals," *Transportation Research Record* 1920, National Academy Press, 2005, pp. 13-24.
  49. Flannery, A., J. Kharoufeh, N. Gautam, L. Elefteriadou, "Queuing Delay Models for Single-Lane Roundabouts," *Civil Engineering and Environmental Systems Journal*, Vol. 22, No. 3, September 2005, pp. 133-150.
  50. Fang, C.F., L. Elefteriadou, K.K. Pecheux, and M.T. Pietrucha, "Using Fuzzy Clustering of User Perception to Define Levels of Service at Signalized Intersections," *ASCE Journal of Transportation Engineering*, Vol. 129, No. 6, November/December 2003, pp. 657-663.
  51. Minderhoud, M., L. Elefteriadou, "Freeway Weaving: Comparing the HCM and Dutch Guidelines," *Transportation Research Record* 1852, National Academy Press, 2003, pp. 10-18.
  52. Harwood, D., K. M. Bauer, I. B. Potts, D. J. Torbic, K. R. Richard, E. R. Kohlman-Rabbani, E. Hauer, L. Elefteriadou, and M. S. Griffith, "Safety Effectiveness of Intersection Left- and Right-Turn Lanes," *Transportation Research Record* 1840, National Academy Press, 2003, pp. 131-139.
  53. Lertworawanich, P., and L. Elefteriadou, "Determination of Storage Lengths of Left-Turn Lanes

at Unsignalized Intersections Using M/G2/1 Queuing," Transportation Research Record 1847, National Academy Press, 2003, pp. 20-28.

54. Torbic, D., M. El-Gindy, L. Elefteriadou, and Z. Jiang, "Bicycle-Friendly Shoulder Rumble Strips," International Journal of Vehicle Design, 2003, Vol. 33, No. 4, pp. 440-466.
55. Torbic, D., M. El-Gindy, L. Elefteriadou, "Methodology for Quantifying Whole-Body Vibration Experienced by Bicyclists on Rumble Strips," International Journal of Vehicle Design, Volume 31 No.4, 2003, pp. 452-480.
56. Lertworawanich, P., L. Elefteriadou, "A Methodology for Estimating Capacity at Ramp Weaves Based on Gap Acceptance and Linear Optimization," Transportation Research Part B: Methodological Vol. 37B, No. 5, June 2003, pp. 459-483.
57. Hawkins, J., T. Boothby, L. Elefteriadou, "Assessment of Safety and Traffic Operational Quality at Historic Stone Bridges," ASCE Journal of Infrastructure Systems, Vol. 8, No. 2, June 2002, pp. 57-64.
58. Evans, J., L. Elefteriadou, G. Natarajan, "Determination of the Probability of Breakdown on a Freeway Based on Zonal Merging Probabilities," Transportation Research Part B: Methodological, Vol. 35B, No. 3, March 2001, pp. 237-254.
59. Donnell, E., Y. Ni, M. Adolini, L. Elefteriadou, "Speed Prediction Models for Trucks on Two-Lane Rural Highways," Transportation Research Record 1751, National Academy Press, 2001, pp. 44-55.
60. Lertworawanich, P., L. Elefteriadou, "Capacity Estimations for Type B Weaving Areas Using Gap Acceptance," Transportation Research Record 1776, National Academy Press, 2001, pp.24-34.
61. Lorenz, M., L. Elefteriadou, "Defining Highway Capacity as a Function of the Breakdown Probability," Transportation Research Record 1776, National Academy Press, 2001, pp. 43-51.
62. Torbic, D., L. Elefteriadou, M. El-Gindy, "Bicycle-Friendly Shoulder Rumble Strips," Journal of the Transportation Research Board, Transportation Research Record No. 1773, National Academy Press, 2001, pp. 23-31.
63. McFadden, J., L. Elefteriadou, "Development of a New Procedure for Evaluating the Horizontal Alignment Design Consistency of Two-Lane Rural Highways," Transportation Research Record: Journal of the Transportation Research Board, No 1737, National Academy Press, 2000, pp. 9-17 (Won the Transportation Research Board's Fred Burggraf Award - 2000).
64. Elefteriadou, L., N. Webster, "Development of a Model for Estimating the Impacts of Truck Size and Weight Policy Changes on Traffic Operational Quality," Heavy Vehicle Systems, A Series of the International Journal of Vehicle Design, Vol. 7, No. 4 (2000) pp. 249-263.
65. Webster, N., L. Elefteriadou, "A Simulation Study of Truck Passenger Car Equivalents (PCEs)

on Basic Freeway Sections," *Transportation Research Part B* 33 (1999), pp. 323-336.

66. Elefteriadou, L., G. List, J. Leonard, H. Lieu, M. Thomas, R. Giguere, R. Brewish, G. Johnson, "Beyond the Highway Capacity Manual: A Framework for Selecting Simulation Models in Traffic Operational Analyses," *Transportation Research Record* 1678, National Academy Press, 1999, pp. 96-106.
67. Harwood, D. W., W.D. Glauz, L. Elefteriadou, "Roadway Widening Costs for Geometric Design Improvements to Accommodate Potential Larger Trucks," *Transportation Research Record* 1658, National Academy Press, 1999, pp. 89-99.
68. Harwood, D. W., W.D. Glauz, L. Elefteriadou, D. J. Torbic, J. McFadden, "Distribution of Roadway Geometric Design Features Critical to Accommodation of Large Trucks," *Transportation Research Record* 1658, National Academy Press, 1999, pp. 77-88.
69. Flannery, A., L. Elefteriadou, P. Koza, J. McFadden, "Safety, Delay and Capacity of Single-Lane Roundabouts in the United States," *Transportation Research Record* 1646, National Academy Press, 1998 pp. 63-70.
70. Elefteriadou, L., D. Torbic, N. Webster, "Development of Passenger Car Equivalents (PCE) for Freeways, Arterials and Two-Lane Highways," *Transportation Research Record* 1572, National Academy Press, 1997, pp. 51-58.
71. Torbic, D., L. Elefteriadou, Y. Wang, T. Ho, "Passenger Car Equivalents for Highway Cost Allocation," *Transportation Research Record* 1576, National Academy Press, 1997, pp. 37-45.
72. McFadden, J., L. Elefteriadou, "Formulation and Validation of Operating Speed-Based Design Consistency Models Using Bootstrapping," *Transportation Research Record* No. 1579, National Academy Press, 1997 pp. 97-103.
73. Elefteriadou, L., R.P. Roess, W.R. McShane, "The Probabilistic Nature of Breakdown at Freeway - Merge Junctions," *Transportation Research Record* 1484, National Academy Press, 1995, pp. 80-89.
74. Elefteriadou, L. and R.L. Vecellio, "Development and Application of a Simulation Model to Evaluate Traffic Operations at School Locations," *Transportation Research Record* 1398, National Academy Press, 1993.

### **Books and Book Chapters**

Elefteriadou, L. "An Introduction to Traffic Flow Theory", Springer Optimization and its Applications, 2014, 251 pages.

Yeon, J., L. Elefteriadou, "Use of Traffic Management Center and Sensor Data to Develop Travel Time Estimation Models", *Transportation Science and Technology*, Editor: K. Goulias, Elsevier, 2006.



Elefteriadou, L., "Highway Capacity Analysis in the US: State of the Art and Future Directions", Transportation Science and Technology, Editor: K. Goulias, Elsevier, 2006.

Elefteriadou, L., Chapter 8 - Highway Capacity, in Handbook of Transportation Engineering, Editor: Myer Kutz, McGraw-Hill, 2004, pp. 8-1 to 8-17

Elefteriadou, L., Editor, Proceedings of the Sixth Annual Pennsylvania Transportation Institute Conference, State College, PA., July 16<sup>th</sup> and 17<sup>th</sup>, 2003.

P. H. L. Bovy and L. Elefteriadou, Editors, TRAIL Research School - Conference Proceedings, "Freeway Design: Comparison of HCM 2000 and Dutch Approach, State of the Art and New Developments, TRAIL Proceedings Series No. P2001/01, Delft, Netherlands, December 2001, 161 pages.

Elefteriadou, L., "The HCM 2000: Highlights, Shortcomings, and Future Direction", TRAIL Research School - Conference Proceedings, "Freeway Design: Comparison of HCM 2000 and Dutch Approach, State of the Art and New Developments, Editors: P. H. L. Bovy and L. Elefteriadou, TRAIL Proceedings Series No. P2001/01, Delft, Netherlands, Dec. 2001, pp. 5-10.

#### Conference Papers and Other Publications

1. Emami, P., M. Pourmehrab, M. Martin-Gasulla, L. Elefteriadou, Sanjay Ranka, "A Comparison of Intelligent Signalized Intersection Controllers Under Mixed Traffic", Accepted for presentation and publication, 21st IEEE International Conference on Intelligent Transportation Systems(IEEE ITSC 2018), Maui, Hawaii, November 2018.
2. Omidvar, A., C. Letter, L. Elefteriadou, An Overview of Existing Pilot and Testbed Activities to Advance Connected and Autonomous Vehicle Technology: Common Threads and Future Priorities; Poster presentation, Annual Transportation Research Board Meeting, Washington DC, January 2018.
3. De Andrade, G., L. Elefteriadou, M. Hadi, V. Khanapure, Effects of Mobility, Safety, and Emissions on Signal Timing Optimization; Poster presentation, Annual Transportation Research Board Meeting, Washington DC, January 2018.
4. Sasahara, F., L. Elefteriadou, Lane-by-lane Analysis of Congestion Effects due to Queue Spillback at an Off-ramp; Poster presentation, Annual Transportation Research Board Meeting, Washington DC, January 2018.
5. Manjunatha, P., L. Elefteriadou, Analysis of Wiedemann Car Following Thresholds Using Driving Simulator Observations; Poster presentation, Annual Transportation Research Board Meeting, Washington DC, January 2018.
6. Zheng, Y. P. Manjunatha "Empirical Assessment of Adaptive Signal Control Technologies in Florida", presented, Annual Transportation Research Board Meeting, Washington DC, January 2017.

7. Manjunatha, P., A. Kondyli, L. Elefteriadou, "How Has Driver Behavior Been Considered in Traffic Microsimulation and How Can we Use Cognitive Sciences and Psychology Studies to Enhance Them?" presented, Annual Transportation Research Board Meeting, Washington DC, January 2017.
8. Elefteriadou, L., The Highway Capacity Manual, 6th Edition: A Guide for Multimodal Mobility Analysis, TR News, Number 306, Transportation Research Board, National Academies, Nov-Dec. 2016, pp. 16-21.
9. Sisiopiku, V.P., S. V. Mamidipalli, B. Schroeder, L. Elefteriadou, "Time-of-Day Visibility-based Pedestrian Gap Acceptance Model for Two-Way Stop Controlled Crossings", World Multidisciplinary Civil Engineering - Architecture - Urban Planning Symposium - WMCAUS 2016, Prague, June 2016.
10. Elefteriadou, L., "The Highway Capacity Manual 6<sup>th</sup> Edition: A Guide for Multimodal Mobility Analysis" ITE Journal, April 2016, pp. 14-18.
11. Elefteriadou, L., R. Dowling, P. Ryus, "Exploring Multimodal Analysis in the Highway Capacity Manual 2010", ITE Journal, February 2015, pp. 27-31
12. Kondyli, A., L. Elefteriadou, B. St George, "An Investigation of the Freeway Capacity Definition and Values at Various Types of Bottlenecks", TRB Annual Meeting, January, 2015.
13. Hunter, E., K. Salamati, L. Elefteriadou, V. Sisiopiku, N. Rouphail, B. Phillips, B. Schroeder, "Driver Yielding at Unsignalized Midblock Crossings", TRB Annual Meeting, January, 2015.
14. Hummer, J., R. Jagannathan, L. Elefteriadou, B. Sampson "HCM-Based Performance Framework and Characteristics of Restricted Crossing U-Turn and Median U-Turn", ITE 2014 Conference and Annual Meeting, Seattle, WA, August 2014
15. Schroeder, B., R. Jagannathan, C. Cunningham, L. Elefteriadou, B. Sampson, "HCM-Based Performance Framework and Characteristics of Double Crossover Diamond Interchanges (DCD) and Displaced Left-Turn Intersections (DLT)", ITE 2014 Conference and Annual Meeting, Seattle, WA, August 2014
16. Li, Z., L. Elefteriadou, A. Kondyli, "Modeling Weather Impacts on Traffic Operations: Implementation into Florida's Travel Time Reliability Model", TRB Annual Meeting, Washington DC., January 2014.
17. Steiner, R., Elefteriadou, L., Srinivasan, S., Tice, P., and Lim, K. "Identification and Assessment of Transportation Performance Measures for Growth Management and Transportation Impact Assessment Applications", 13th World Conference on Transport Research in Rio de Janeiro, Brazil, July 2013.
18. Hill, C., L. Elefteriadou, "Lane Changing on Freeways", presented at the Annual Transportation Research Board Meeting, Washington DC., January 2013
19. Letter, C., L. Elefteriadou, "An Investigation of The Impact of Variable Speed Limit Algorithms

- Using Simulation", presented at the Annual Transportation Research Board Meeting, Washington DC., January 2013
20. Cui, X., Z. Li, L. Elefteriadou, "Travel Time Estimation for Signalized Arterials Using Probabilistic Modeling, presented at the Annual Transportation Research Board Meeting, Washington DC., January 2013
  21. Letter, C., L. Elefteriadou, "An Initial Evaluation of Variable Speed Limits Along Freeway Facilities", presented at the Joint Meeting of the Highway Capacity and Traffic Flow Theory committees of TRB, Ft. Lauderdale, Florida, June 22-24, 2012
  22. Mintsis, E., L. Elefteriadou, "Managed Lane Operations: Coordination Between Tolling and Ramp Metering Along I-95" presented at the Joint Meeting of the Highway Capacity and Traffic Flow Theory committees of TRB, Ft. Lauderdale, Florida, June 22-24, 2012
  23. Elefteriadou L., B. Martin, "Using Micro-Simulation to Evaluate the Effects of Advanced Vehicle Technologies on Congestion", presented at the Annual Transportation Research Board Meeting, Washington DC., January 2012
  24. McLeod, D., L. Elefteriadou, and L. Jin, "Travel Time Reliability as a Performance Measure: Applying Florida's Predictive Model on the State's Highway System", presented at the Annual Transportation Research Board Meeting, Washington DC., January 2012
  25. Ryus, P., M. Vandehey, L. Elefteriadou, R. Dowling, B. Ostrom "The Highway Capacity Manual 2010" TR News 273, A Publication of the Transportation Research Board, March-April 2011
  26. Elefteriadou, L. B. Martin, "An Investigation of the Impact of Advanced Vehicle Technologies on Traffic Operations", presented and published in the proceedings of the ITS World Congress, Orlando, Florida, October 2011
  27. Brilon, W., L. Elefteriadou, A. Kondyli, F. Hall, B. Persaud, S. Washburn, " Proactive Ramp Metering Based on Breakdown Probabilities", presented at the 6<sup>th</sup> International Symposium for Highway Capacity, Stockholm, Sweden, June 2011
  28. Soria, I., L. Elefteriadou, "Assessment of Car-Following Models using Field Data", presented at the Transportation Research Board Annual Meeting, Washington, DC, January 2011
  29. Lu, C., L. Elefteriadou, "An Investigation Of Freeway Capacity Before And During Incidents", presented at the Transportation Research Board Annual Meeting, Washington, DC, January 2011
  30. Elefteriadou, L., A. Kondyli, W. Brilon, F. Hall, S. Washburn, " Ramp Metering Enhancements for Postponing Freeway-Flow Breakdown", presented at the Transportation Research Board Annual Meeting, Washington, DC, January 2011
  31. Kondyli, A., I. Soria, A. Duret, L. Elefteriadou, "How Well Does CORSIM Replicate the Process of Breakdown?" presented at the Transportation Research Board Annual Meeting,

Washington, DC, January 2011

32. Kondyli, A., L. Elefteriadou, "Driver Behavior at Freeway-Ramp Merging Areas", 5<sup>th</sup> International Congress on Transportation Research, Volos, Greece, September 27-28, 2010, pp. 1014-1032
33. Elefteriadou, L., D. McLeod, M. Lombard, G. Chrysikopoulos, "Development and Application of a Travel Time Reliability Estimation Method for Freeways", presented at the Transportation Research Board Annual Meeting, Washington, DC, January 2010
34. Kondyli, A., L. Elefteriadou, "Driver Behavior at Freeway-Ramp Merging Areas Based on Instrumented Vehicle Observations", presented at the Transportation Research Board Annual Meeting, Washington, DC, January 2010
35. Kondyli, A., L. Elefteriadou, "Qualitative Assessment of Driver Behavior at Freeway-Ramp Merging Areas: Focus Group Findings", presented at the Transportation Research Board Annual Meeting, Washington, DC, January 2009
36. Jian (Daniel) Sun, A. Kondyli, and L. Elefteriadou, "Modeling Vehicle Interactions During Lane Changes Under Congested Conditions on Arterial Streets", AATT 2008, Athens, Greece, May 2008.
37. Kim, J. and L. Elefteriadou, "Capacity Estimation for Two-Lane, Two-Way Highways Using Simulation", Transportation Research Board Meeting, Washington DC, January 2007.
38. Kondyli, A., A. Duret, and L. Elefteriadou, "Evaluation Of Corsim And Aimsun For Freeway Merging Segments Under Breakdown Conditions", Transportation Research Board Meeting, Washington DC, January 2007.
39. Fang, C. and L. Elefteriadou, "Vehicular Projection Dynamics and Application Programming Interface for Real-Time Signal Control", Transportation Research Board Meeting, Washington DC, January 2007.
40. Yeon, J., S. Hernandez, and L. Elefteriadou, "Differences in Freeway Capacity by Day of the Week, Time of Day, and Segment Type", Transportation Research Board Meeting, Washington DC, January 2007.
41. Elefteriadou, L., and X. Cui, "A Framework for Defining and Estimating Travel Time Reliability", Transportation Research Board Meeting, Washington DC, January 2007.
42. Lertworawanich, P., P. Mongonrattanawang, L. Elefteriadou, "Effects of Variable Message Signs on Traffic Operations", ITS World Congress, U.K., October 8-12 2006.
43. Yeon, J., and L. Elefteriadou, "Comparison of Travel Time Estimation Using Three Previously Developed Methods to Field Data Along Freeways", 5<sup>th</sup> International Symposium on Highway Capacity and Quality of Service, Yokohama, Japan, July 25-29, 2006.

44. Elefteriadou, L., F. Hall, W. Brilon, R. Roess, M. Romana, "Revisiting the Definition and Measurement of Capacity", 5<sup>th</sup> International Symposium on Highway Capacity and Quality of Service, Yokohama, Japan, July 25-29, 2006.
45. Kondyli, A. L. Elefteriadou, S. Washburn, "Development Of An Arterial Link Travel Time Model With Consideration Of Mid-Block Effects", 5<sup>th</sup> International Symposium on Highway Capacity and Quality of Service, Yokohama, Japan, July 25-29, 2006.
46. Lin P., L. Elefteriadou, and A. Kondyli, "A Ramp-metering Algorithm Based On Probabilistic Breakdown", First International Symposium on Freeway and Tollway Operations, Athens, Greece, June 2006.
47. Jayabalan D., N. Gautam, and L. Elefteriadou, "Short-term Direct Travel time Prediction for Freeway Segments", Proceedings of the Industrial Engineering Research Conference, Orlando FL, May 2006.
48. Fang, C. and L. Elefteriadou, "Optimal and Adaptive Signal Control of Diamond Interchanges", Transportation Research Board Meeting, Washington DC, January 2005.
49. Pietrucha, M. T., E. Donnell, P. Lertworawanich, and L. Elefteriadou, "A Study on the Effects of Traffic Volume, Traffic Speed, Mounting Height, and Lateral Offset on the Visibility of On-Premise Commercial Signs", Transportation Research Board Meeting, Washington DC, January 2005.
50. Adolini-Minnicino, M., and L. Elefteriadou, "Speed Prediction Models for Trucks on Two-Lane Rural Highways", Transportation Research Board Meeting, Washington DC, January 2004.
51. Lertworawanich, P. and L. Elefteriadou, "Evaluation of Three Freeway Weaving Capacity Estimation Methods and Comparison to Field Data", Transportation Research Board Meeting, Washington DC, January 2004.
52. Fang, C. and L. Elefteriadou, "Some Guidelines for Selecting Micro-simulation Models for Interchange Traffic Operational Analysis", Transportation Research Board Meeting, Washington DC, January 2004.
53. Elefteriadou, L., and P. Lertworawanich, "Defining, Measuring and Estimating Freeway Capacity", Transportation Research Board Meeting, Washington DC, January 2003.
54. Goulias, K., L. Elefteriadou, J. Kuhnau, "Classroom Consulting Experience as Entrepreneurship Training: Lessons Learned from a Case Study in Transportation" 2002 ASEE/SEFI/TUB International Colloquium "Global Changes in Engineering Education", Berlin, Germany, October 14, 2002.
55. Fang, F.C., L. Elefteriadou, K. Pechaux, M. Pietrucha, "Using Fuzzy Clustering of User-Estimated Delay to Define Level of Service at Signalized Intersections", Transportation Research Board Meeting, Washington DC, January 2002.
56. Donnell, E.T., M. L. Adolini, D. J. Torbic, J. M. Mason, L. Elefteriadou, "Truck Safety Considerations for Geometric Design and Traffic Operations", ITE Annual Meeting, Chicago, August 19-22, 2001.

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58. Lorenz, M., L. Elefteriadou, "A Probabilistic Approach to Defining Capacity and Breakdown", Transportation Research Circular E-C018, Fourth International Symposium on Highway Capacity, Proceedings, June 27 – July 1, 2000, pp. 84-95.
59. Torbic, D.J., L. Elefteriadou, "The effects of Driver Population on the Traffic Operational Performance at Signalized Intersections", Transportation Research Circular E-C018, Fourth International Symposium on Highway Capacity, Proceedings, June 27 – July 1, 2000, pp. 336 – 347.
60. Bumble, M., L. Coraor, L. Elefteriadou, "Exploring CORSIM Runtime Characteristics: Profiling a Traffic Simulator", Proceedings, 33<sup>rd</sup> Annual Simulation Symposium, Washington, DC, April 2000.
61. McFadden, J., D. Warren, L. Elefteriadou, R. Archilla, "The Implication of Curve Flattening on the Geometric Design of Highways", ITE International Conference, March 28-31, 1999.
62. Flannery, A., L. Elefteriadou, "A Review of Roundabout Safety Performance in the United States", ITE International Conference, March 28-31, 1999.
63. Anderson, J. A., E. T. Donnell, L. Elefteriadou, "Assessing and Targeting Transportation Training and Education Needs", Transportation Research Board Meeting, Washington DC, January 1999 (CD-ROM).
64. McFadden, J., L. Elefteriadou, D. Warren, "Development of a New Parameter for Evaluating Horizontal Alignment Design Consistency for Two-Lane Rural Highways", Public Roads, December 1998.
65. Elefteriadou, L., N. Webster, "Quantifying Traffic Operational Impacts of New Truck Configurations in the U.S. Highway Network", 5th International Symposium on Heavy Vehicle Weights and Dimensions, ARRB, Australia, March-April 1998 (CD-ROM).
66. Torbic, D., J. Borkowski, L. Elefteriadou, "Relationships Between Traffic Operations and Safety at Signalized Intersections", Proceedings, Third International Symposium on Highway Capacity, Denmark, June 1998, pp. 1027-1046.
67. Flannery, A., Elefteriadou, "Capacity Models for American Roundabouts", Proceedings, Third International Symposium on Highway Capacity, Denmark, June 1998, pp. 437-446.
68. McFadden, J., L. Elefteriadou, B. Hanover, J. Hawkins, A. Flannery, "Development of Simulation Models for Three and Four Leg AWSC Intersections Using GPSS", Proceedings of the Third International Symposium on Intersections Without Traffic Signals, pp. 178-190, Portland, Oregon, July 1997.
69. Elefteriadou, L. "Freeway-Merging Operations: A Probabilistic Approach", 8th International Federation of Automatic Control (IFAC) - Symposium on Transportation Systems, pp. 1351-1356, Technical University of Crete, Greece, June 1997.

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72. Elefteriadou, L. and Y. Wang, "Guidelines for Application of Advanced Technologies in Traffic Signal Control Equipment", Proceedings, 1995 ITE Conference on Technology Tools for Transportation Professionals, April 1995.
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### **Selected Research Reports**

- Elefteriadou, L., M. Pourmehrab, P. Emami, A. Omidvar, C. Letter, P. Neal, R. Kiriazis, S. Ranka, C. Crane, S. Ridgeway, "Development and Testing of Optimized Autonomous and Connected Vehicle Trajectories at Signalized Intersections", FDOT Contract BDV31-977-45, November 2017, 71 pages.
- Elefteriadou, L., A. Omidvar, C. Letter, "University of Florida Advanced Technologies Campus Testbed", FDOT Contract BDV31 977-74, September 2017, 251 pages.
- Elefteriadou, L., A. Kondyli, B. St. George, "Estimation of Capacities on Florida Freeways", FDOT Contract BDV32-977-03, September 2014, 60 pages.
- Elefteriadou, L., A. Kondyli, B. St. George, "Comparison of Methods for Measuring Travel Time at Florida Freeways and Arterials" FDOT Contract BDV32-977-02, August 2014, 90 pages.
- Schroeder, B., N. Rouphail, K. Salamati, E. Hunter, B. Phillips, L. Elefteriadou, T. Chase, Y. Zheng, V. Sisiopiku, S. Mamidipalli, "Empirically-Based Performance Assessment and Simulation of Pedestrian Behavior at Unsignalized Crossings, STRIDE Project 2012-016S, US DOT, September 2014, 191 pages.
- Elefteriadou, L., Z. Li, L. Jin, "Modeling, Implementation, and Validation of Arterial Travel Time Reliability, FDOT Contract BDK77 977-20, November 2013, 134 pages.
- Zegeer, J., W. Kittelson, D. Franca, M. Lombard, L. Elefteriadou, S. Srinivasan, M. Hallenbeck, E. McCormick, P. Briglia, R. Pozdena, S. Dammen, J. Schofer, M. Meyer, "Evaluating Alternative Operations Strategies to Improve Travel Time Reliability", SHRP 2 Report S2—L11-RR-1, Transportation Research Board, 2013, 194 pages.
- Elefteriadou, L., Z. Li, "Development of Recommendations for Arterial Lane Closures to Optimize Traffic Operations" final report submitted to the Florida Department of Transportation, January 2013.

Elefteriadou, L., Srinivasan, S., Steiner, R. Tice, P., Lim, K., "Expanded Transportation Performance Measures to Supplement Level of Service (LOS) for Growth Management and Transportation Impact Analysis ", final report submitted to the Florida Department of Transportation, October 2012.

Elefteriadou, L., Washburn, S., Yin, Y., Modi, V., and Letter, C. "Variable Speed Limit (VSL) Best Management Practice", Final report, Florida Department of Transportation, July 2012.

Elefteriadou, L., Lu, C., Li, Z., Wang, X., Jin, L., "Multimodal and Corridor Applications of Travel Time Reliability" Final report, Florida Department of Transportation, March 2012.

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Elefteriadou, L., B. Martin, T. Simmerman, D. Hale, "Using Microsimulation to Evaluate the Effects of Advanced Vehicle Technologies on Congestion", final report submitted to the US DOT Center for Congestion Mitigation Solutions, University of Florida, July 2011.

Elefteriadou, L., Z. Li, G. Chrysikopoulos, C. Lu, L. Jin, P. Ryus, "Travel Time Reliability Implementation for the Freeway Strategic Intermodal System", final report submitted to the Florida Department of Transportation, December 2010.

Elefteriadou, L., G. Chrysikopoulos, M. Lombard "Travel Time Reliability Modeling for Florida", final report submitted to the Florida Department of Transportation, January 2010.

Elefteriadou, L., A. Kondyli, W. Brilon, L. Jacobson, F. Hall, B. Persaud, S. Washburn "Proactive Ramp Management Under the Threat of Freeway-Flow Breakdown", NCHRP 3-87, Transportation Research Board, Washington D.C., December 2009.

Elefteriadou, L., D. Michalaka, A. Elias, C. Lu, C. Fang "Validation and Enhancement of the Highway Capacity Manual's Interchange Ramp Terminal Methodology, Final Report, NCHRP 3-60A, Transportation Research Board, Washington D.C., December 2009.

Elefteriadou, L., Hongsheng Xu, Li Xie, "Travel Time Reliability Models", Final Report, Florida Department of Transportation, September 2008.

Elefteriadou, L., K. Heaslip, "Field Data Collection and Analysis for Freeway Work Zone Capacity Estimation", Final report, Florida Department of Transportation, April 2008.

Elefteriadou, L., M. Jain, K. Heaslip, "Impact of Lane Closures on Roadway Capacity – Part B: Arterial Work Zone Capacity", Final Report, Florida Department of Transportation, January 2008.

Elefteriadou, L., H. Xu, "Travel Time Reliability Models For Freeways and Arterials", final report submitted to the Florida Department of Transportation, September 2007.



Elefteriadou, L., D. Arguea, A. Kondyli, K. Heaslip, "Impact of Trucks on Arterial LOS and Freeway Work Zone Capacity (Part B)", final report submitted to the Florida Department of Transportation, July 2007.

Elefteriadou, L., X. Cui, "Travel Time Reliability and Truck Level of Service on the Strategic Intermodal System – Part A: Travel Time Reliability", final report submitted to the Florida Department of Transportation, April 2007.

Elefteriadou, L., C. Fang, R. Roess, E. Prassas, J. Yeon, X. Cui, A. Kondyli, H. Wang, J. Mason, "Capacity and Quality of Service of Interchange Ramp Terminals", NCHRP 3-60, Final Report, March 2005.

Harwood, D. W., D. J. Torbic, K. R. Richard, W. D. Glauz, L. Elefteriadou, "Review of Truck Characteristics as Factors in Roadway Design, NCHRP Report 505, Transportation Research Board, Washington D.C., 2003.

Wooldridge, M.D., K. Fitzpatrick, D.W. Harwood, I. B. Potts, L. Elefteriadou, D. Torbic, "Geometric Design Consistency on High-Speed Rural Two-Lane Highways", NCHRP Report 502, Transportation Research Board, Washington D.C., 2003.

Harwood, D. W., I. B. Potts, K. M. Bauer, J. Bonneson, L. Elefteriadou, "Two-Lane Road Analysis Methodology in the Highway Capacity Manual", Final Report, September 2003, National Cooperative Highway Research Program, NCHRP Project 20-7 (160), September, 2003.

Pietrucha, M. T., E. T. Donnell, P. Lertworawanich, L. Elefteriadou, "Sign Visibility: Effects of Traffic Characteristics and Mounting Height", United States Sign Council, 2003.

Harwood, D. W., K. M. Bauer, I. B. Potts, D. J. Torbic, K. R. Richard, E. R. Kohlman Rabbani, E. Hauer, and L. Elefteriadou, "Safety Effectiveness of Intersection Left- and Right-Turn Lanes", Federal Highway Administration, Report No. FHWA-RD-02-089, July 2002.

Elefteriadou, L., D. Torbic, S. Stoffels, M. El-Gindy, M. Adolini, "Rumble Strips for Two-Lane Roads with Narrow or Non-Existent Shoulders", final report submitted to the Pennsylvania Department of Transportation, October 2001.

Elefteriadou, L., M. El-Gindy, D. Torbic, J. Ziang, B. Pechaux, A. Homan, R. Tallon, "Bicycle-Friendly Rumble Strips", final report submitted to the Pennsylvania Department of Transportation, March 2000.

Elefteriadou, L., J. Anderson, E. Donnell, A. Davenport, "Design Community Training and Education Plan", final report submitted to the Pennsylvania Department of Transportation, November 1999.

Elefteriadou, L., D. Torbic "A Congestion Management Plan for Pennsylvania", final report submitted to the Pennsylvania Department of Transportation, February 1999.

Fitzpatrick, K., L. Elefteriadou, D. Harwood, R. Krammes, N. Irizzari, J. McFadden, K. Parma, J. Collins "Speed Prediction for Two-Lane Rural Highways", Final Report, FHWA-99-171, 172, 173 and 174, June 1999 (<http://www.tfhr.gov/safety/ihsdm/pdfarea.htm>).

Fitzpatrick, K., L. Elefteriadou, J. Collins, "User's Guide to Databases Developed for Evaluating Two-Lane Highway Design Consistency", Final Report, FHWA, June 1999.

Elefteriadou, L., D. W. Harwood, W. D. Glauz, J. Hawkins, J. McFadden, D. J. Torbic, N.A. Webster, "Evaluation of Limitations in Roadway Geometry and Impacts on Traffic Operations for Proposed Changes in Truck Size and Weight Policy" final report submitted to the Battelle Memorial Institute and Federal Highway Administration, June 1997.

Elefteriadou, L., D. Torbic, N. Webster, Y. Wang,, T. Ho, "Treatment of Design and Operational Characteristics in the Federal Highway Cost Allocation Study", final report submitted to the Battelle Memorial Institute and Federal Highway Administration, December 1996.

Elefteriadou, L., "Assessment of Advanced Traffic Signal Control Equipment", final report submitted to the Pennsylvania Department of Transportation, March 20, 1995.

Elefteriadou, L., "Inventory and Review of Highway Cost Allocation Data and Methods-Other Traditional Highway Costs", White Paper submitted to the Federal Highway Administration, March 10, 1995.

#### **Research Projects (\* indicates Projects where Lily Elefteriadou served as Principal Investigator at UF)**

\*Regional University Transportation Center (Southeast Region) STRIDE: Southeast Transportation Research Innovation Development and Education, US DOT – Current (\$14 Million); Jan. 2017 – Dec. 2021

\*NSF - CPS: TTP Option: Synergy: Traffic Signal Control with Connected and Autonomous Vehicles in the Traffic Stream (NSF Award # 1446813) – Current (\$1.3 M); Project website: <http://avian.essie.ufl.edu/>

\*NCHRP 15-57: Highway Capacity Manual Methodologies for Corridors Involving Freeways and Surface Streets – Current (\$800K); Aug. 16 – Jan. 2019

\*Evaluation of Arterial Corridor Improvements and Traffic Management Plans in Florida, FDOT BDV31 977-45, Current (\$137,164)

\* Before and After-Implementation Studies of Advanced Signal Control Technologies in Florida, FDOT BDV32 TWO 977-05, Current (\$671,248)

\*FDOT BDV31- Task Work Order #: 977 - 74 - University of Florida Advanced Technologies Campus Testbed, \$76K, March 2017 – Sept. 2017

\*Development and Testing of Optimized Autonomous and Connected Vehicle Trajectories at Signalized Intersections, FDOT BDV31 977-45, \$392,604, Sept. 2017

\*Regional University Transportation Center (Southeast Region) STRIDE: Southeast Transportation Research Innovation Development and Education, US DOT – \$7 Million; Jan. 2012 – June 2017

HCM Reference Guide/DTA Workshops/ATDM HCM Computational Algorithms, FHWA, \$30,000, Sept. 2016

\*Alternative Intersections and Interchanges, SAIC/FHWA – (\$20,000)

\*Estimation of Capacities on Florida Freeways, FDOT (\$100,000)

\*Comparison of Methods for Measuring Travel Time at Florida Freeways and Arterials, FDOT, (\$110,000)

\*Tier 1 University Transportation Center – Multimodal Solutions for Congestion Mitigation, U.S. DOT, 2007 – 2013 (\$7.2 Million)

\*Modeling, Implementation, and Validation of Arterial Travel Time Reliability, FDOT (\$150,000)

\*Expanded Transportation Performance Measures to Supplement Level of Service (LOS) for Growth Management and Transportation Impact Analysis – FDOT (\$200,000)

\*Development of Recommendations for Arterial Lane Closures to Optimize Traffic Operations – FDOT (\$148,000)

\*Multimodal and Corridor Applications of Travel Time Reliability – FDOT (\$150,000)

\*Variable Speed Limit (VSL) Best Management Practice – FDOT (\$239,779)

Managed Lane Operations: Adjusted Time of Day Pricing vs. Near Real Time Dynamic Pricing – FDOT (\$497,369)

\*Using Microsimulation to Evaluate the Effects of Advanced Vehicle Technologies on Congestion – USDOT/CMS (\$100,000)

SHRP2 L11 Evaluating Alternative Operations Strategies to Improve Travel Time Reliability – Strategic Highway Research Program 2/Kittelson and Associates, Inc. – P.I: Siva Srinivasan, (\$150,000)

\*Travel Time Reliability Implementation for the Freeway SIS – FDOT (\$100,000)

Guidance for the Use of Alternative Traffic Analysis Tools in Highway Capacity Analysis, NCHRP 3-85 (\$300,000)

\*Validation and Enhancement of the Highway Capacity Manual's Interchange Ramp Terminals Methodology, NCHRP 3-60A (\$200,000)

\*Proactive Ramp Management Under the Threat of Freeway-Flow Breakdown, NCHRP 3-87 (\$400,000)

\*Travel Time Reliability Modeling for Florida, FDOT (\$75,000)

\*Travel Time Reliability for Freeways and Arterials, FDOT (\$75,000)

Impact of Lane Closures on Roadway Capacity, FDOT (\$200,000)

\*The Impact of Trucks on Arterial LOS and Work Zone Lane Closure Analysis, FDOT (\$195,000)

\*Travel Time Reliability and Truck Level of Service for the Strategic Intermodal System, FDOT (\$152,592)

\*Travel Time Route Reliability, NSF (\$150,000)

\*Capacity and Level of Service of Interchange Ramp Terminals, NCHRP 3-60 (\$300,000)

Mid-Atlantic Universities Transportation Center (MAUTC), Co-Principal Investigator, Office of Innovation, Research and Education (DIR-1), RSPA (\$906,000)

The Effects of Traffic Characteristics and Mounting Height, United States Sign Council (P.I: M.T. Pietrucha) (\$60,000)

\*Impacts of Truck Characteristics on Highway Geometric Design, NCHRP 15-21, MRI/NCHRP (\$40,000)

\*Geometric Design Consistency on Higher-Speed, Non-Urban, Two-Lane Roads, NCHRP 15-17, Texas Transportation Institute/NCHRP (\$20,000)

ATIS evaluation for the Pennsylvania Turnpike - Phase III, Frederick R. Harris (\$160,000)

\*Bicycle-Friendly Rumble-Strips for Highways with Narrow or Non-Existent Shoulders, PennDOT (\$90,000)

\*Safety Evaluation of Intersection Design Improvements, Midwest Research Institute/Federal Highway Administration (\$155,000).

\*Bicycle-Friendly Rumble Strips, PennDOT (\$135,400)

\*Design Community Training and Education Plan, PennDOT (\$189,000).

\*Design Consistency Evaluation Module for the Interactive Highway Safety Design Model, Texas Transportation Institute/Federal Highway Administration (\$177,192).

\*4th Annual Traffic Engineering and Safety Conference, PennDOT (\$80,000).

\*Congestion Management Statewide Strategic Plan, PennDOT (\$30,000).

Stone Arch Bridge Inventory - Phase II (PI: Thomas Boothby), final report submitted August 1998 to the County of Hunterdon, New Jersey (\$12,000).

\*Traffic Signal Simulation Software Training Courses, PennDOT (\$35,000).

Traffic Engineering Education Program, (PI: John Mason, Jr.) Penn DOT/MAUTC Partnership Supplement H, completed December 1997 (\$6,000).

\*Development of a Traffic Signal Maintenance Course, PennDOT, completed November 1997 (\$69,723).

\*Evaluation of Limitations in Roadway Geometry and Impacts on Traffic Operations for Proposed Changes in Truck Size and Weight Policy, final report submitted June 1997 to Battelle Memorial Institute/Federal Highway Administration (\$260,000).

\*Treatment of Design and Operational Characteristics in the Federal Highway Cost Allocation Study, final report submitted December 1996 to Battelle Memorial Institute/Federal Highway Administration (\$142,341).

\*Feasibility Study for an Interdisciplinary Program in Transportation, final report submitted August 1996 to the College of Engineering & Civil and Environmental Engineering Department (\$5,000).

\*Assessment of Advanced Signal Traffic Control Equipment, final report submitted May 1995 to the Pennsylvania Department of Transportation (\$31,392).

Inventory and Review of Highway Cost Allocation Data and Methods, (PI: Evelyn Thomchick) final report submitted March 1995, to the Federal Highway Administration (\$10,500).

### **Selected Presentations**

Traffic Signal Control with Connected and Autonomous Vehicles in the Traffic Stream; Florida Atlantic University, December 11, 2017 – Distinguished Lecture for the College of Engineering

I-STREET: a transportation testbed in Gainesville, Florida; Florida Automated Vehicle (FAV) Conference, Tampa FL, November 15, 2017 – Invited Speaker

Traffic Signal Control with Connected and Autonomous Vehicles in the Traffic Stream; Georgia Tech Seminar, September 28, 2017 – Invited Speaker

Autonomous, Automated, connected vehicles: When are they coming to Gainesville? Presentation to the Rotary Club, Gainesville, FL, May 24, 2017 – Invited Speaker

Traffic Signal Control with Connected and Autonomous Vehicles in the Traffic Stream, University of South Florida, CUTR Seminar, April 21, 2017 – Invited Speaker

Developing a transportation testbed in Gainesville, Florida: From concept to implementation, SUNTOWNS Conference, Gainesville, FL, April 12, 2017 – Invited Speaker

Transportation Research at the UFTI, Presentation to the INFORMS UF Student Chapter,

Gainesville, FL, February 17, 2017 – Invited Speaker

STRIDE: Regional Center, Federal Region 4 (Southeast), Presentation to US Congress staff, November 30, 2016

An Overview of the US HCM Update - The Highway Capacity Manual (HCM) 6th Edition: A Guide for Multimodal Mobility Analysis, ISEHP 2016, Berlin, Germany, July 1, 2016 – Invited Speaker

Signal Control Optimization for Automated Vehicles at Isolated Signalized Intersections; 2015 COTA International Conferences of Transportation Professionals, Beijing, China, July 25-27, 2015 - Invited Plenary Speaker

Signal Control Optimization for Automated Vehicles & Principles of Traffic Flow Theory: Driver Behavior, Smart Ways Program Gift 2.0: University of Patras, Greece, March 2-3, 2015 - Invited Seminars Lecturer

Elefteriadou, L., "Freeway Traffic Management Strategies", ITS Florida Tech Forum, Orlando, Florida, October 10, 2013

Kondyli, A. (presenter), C. Letter, A. Elefteriadou, Incorporating the Breakdown Probability Concept for ATDM Strategies, Poster presentation, TRB 2013 Freeway & Managed Lane Operations Meeting and Conference, Atlanta, GA, June 23-26, 2013

Driver Behavior and Characteristics Data and their Use in Traffic Modeling, Presented at the Delft University of Technology, Netherlands, October 22, 2012 – Invited

Freeway Traffic Management Strategies and Travel Time Reliability, RITA Transportation Innovation Series, A Strategic Outreach Series Hosted By The Research And Innovative Technology Administration, US Department of Transportation, Washington D.C., March 27, 2012 - Invited

Driver Behavior And Characteristics and Their Effects in Traffic Modeling, Presented at the University of California, Berkeley, February 17, 2012 - Invited

The US 2010 Highway Capacity Manual (HCM), Presented at the Annual Brazilian Transportation Conference, Belo Horizonte, Brazil, November 8, 2011 - Invited

Using Field Data to Calibrate Car-Following Models, ITS World Congress, Orlando, October 17, 2011

Driver Behavior and Characteristics Data and their Use in Traffic Modeling, Presented at the University of Bochum, Germany, May 25, 2011 – Invited

Traffic Operations: Freeways, Signals, the HCM 2010, and Simulation, Presented at the University of Thessaloniki, Greece, May 18, 2011 – Invited

Driver Behavior and Characteristics Data and their Use in Traffic Modeling, Georgia Tech, February 11, 2011 - Invited Webinar

NCHRP 3-87: Ramp Metering Based on the Probability of Freeway Breakdown, Presented at the University of Crete, Chania, Greece, January 11, 2011 - Invited

Driver Behavior and Characteristics Data and their Use in Traffic Modeling, Presented at the University of Madrid, Spain, November 25, 2010 - Invited

Overview of the CMS and Transportation Activities at UF, Meeting of the FDOT District Traffic Operations Engineers, Tallahassee, Florida, March 23, 2010

Surface Transportation Planning and the Environment: State of the Art and Future Directions, INFORMS Conference on Optimization: Energy, Sustainability, and Climate Change, Gainesville, Florida, February 2010

NCHRP 3-87: Ramp Metering Based on the Probability of Freeway Breakdown, Presented at the University of Minnesota, October 2009 - Invited

NCHRP 3-87: Ramp Metering Based on the Probability of Freeway Breakdown, Presented at the University of Michigan, October 2009 - Invited

Overview of the Highway Capacity Manual 2010 and its Applications, Gainesville Planning and Public Works, June 2009

SHRP2 Reliability and the HCM Research Program for the Future: Researcher Perspective, Annual Transportation Research Board Meeting, January 2009

Ramp Metering for Maximizing Freeway Throughput, Toll Roads South, Orlando, October 2008

Capacity Estimation for Two-Lane Highways Using Simulation, Delft University of Technology, February 2008

Definition and Measurement of Freeway Capacity, TRANSPO, Palm Harbor, FL, November 2006

Travel Time Reliability for Freeways, TRANSPO, Jacksonville, FL, December 2004

The Highway Capacity Analysis 2000, University of South Florida, November, 2004

The US Highway Capacity Manual: State of the Art and Future Directions, (Plenary Session Speaker), TRANSTEC, Greece, September 2004

The Impact of Breakdown on Travel Time Reliability, TRANSTEC, Greece, September 2004

Use of Traffic Management Center (TMC) and Sensor Data from Philadelphia to Develop Travel Time Route Reliability, NATMEC (North American Travel Monitoring Exposition and Conference), San Diego,

CA, June 27-30, 2004

Capacity Estimation for Freeway Weaving Areas Using Simulation, Transportation Research Board Meeting, Washington DC, January 2004

The US Highway Capacity Manual: Capacity and Quality of Service of Interchange Ramp Terminals, Ministry of Public Works, Athens, Greece, June 20, 2003

The Future of Simulation in the HCM, Transportation Research Board Meeting, Washington DC, January 2003

Capacity and Quality of Service of Interchange Ramp Terminals, Transportation Engineering and Safety Conference, State College, PA, December 12, 2002

The HCM 2000, Transportation Engineering and Safety Conference, State College, PA, December 12, 2002

Bicycle-Tolerable Rumble Strips, Virginia Transportation Conference, Virginia Beach, VA, March 12, 2002

Bicycling in the Netherlands, Centre Region Bicycling Committee, State College, PA, February 21, 2002

Traffic Simulation Models as Design Tool, The Netherlands Research School for Transport, Infrastructure and Logistics, Delft, Netherlands, December 6, 2001

The HCM 2000: State of the Art and New Directions, ETH, Zurich, November 20, 2001, 2001

Freeway Capacity as a Probabilistic Variable, Ruhr University, Bochum, Germany, November 6, 2001

Freeway Weaving Analysis - The HCM 2000 / Capacity Models Based on Gap Acceptance, The Netherlands Research School for Transport, Infrastructure and Logistics, Delft, Netherlands, October 25, 2001

Probabilistic Breakdown Models for Freeways, University of Twente, Enschede, The Netherlands, Civil Engineering Colloquium, October 16, 2001

An Overview of the Changes and Additions in the HCM 2000, Helsinki University of Technology, Helsinki, Finland, October 11, 2001

The HCM 2000: Highlights, Shortcomings, and Future Direction, The Netherlands Research School for Transport, Infrastructure and Logistics, Delft, Netherlands, September 28, 2001

A Methodology For Capacity Estimation At Freeway Weaving Areas, Operations Research Colloquium, Penn State University, February 13, 2001

Preview of the HCM 2000 - Weaving and Ramps, Transportation Research Board Meeting,



Washington DC, January 2000

Distribution of Roadway Geometric Design Features Critical to Accommodation of Large Trucks, Transportation Research Board Meeting, Washington DC, January 1999

Beyond the Highway Capacity Manual: A Framework for Selecting Simulation Models in Traffic Operational Analyses, Transportation Research Board Meeting, Washington DC, January 1999

A Markovian Chain Model for Predicting the Probability of Breakdown at Freeway-Merge Junctions, Operations Research Colloquium, Penn State University, November 3, 1998

Development of Passenger Car Equivalents (PCE) for Freeways, Arterials and Two-Lane Highways, Transportation Research Board; Washington DC, January 1997

Traffic Operational Effects of New Trucks, Transportation Research Board, Washington, D.C., January 1997

Freeway-Merging Operations: A Probabilistic Approach, 8th International Federation of Automatic Control (IFAC) - Symposium on Transportation Systems, Technical University of Crete, Greece, June 18, 1997

Development of Passenger Car Equivalents (PCE) for Freeways, Arterials and Two-Lane Highways, Transportation Research Board; Washington DC, January 1997

Innovative Engineering Uses of Technology in the Classroom, Engineering Instructional Services, Penn State University, January 1997

Current Research in Traffic Operations, Penn DOT District Traffic Engineers Meeting, Pittsburgh, June 1996

Passenger Car Equivalents for the Highway Capacity Manual, Highway Capacity and Quality of Service meeting, Orlando, July 1996

Workshop - Highway Capacity Manual, Traffic Engineering Conference, State College, December 1996

Engineering Education Modules Workshop - Module 4, Traffic Engineering Conference, State College, December 1996

Stochastic Simulation for Integration of Traffic Assignment and Traffic Signal Operations, Second World Congress on Intelligent Transport Systems, Yokohama, November 1995

Guidelines for Application of Advanced Technologies in Traffic Signal Control Equipment, 1995 ITE Conference on Technology Tools for Transportation Professionals, April 1995

The 1994 Highway Capacity Manual Update, Annual Mid-Atlantic Section of ITE, March 1995

The Probabilistic Nature of Breakdown at Freeway - Merge Junctions, Transportation Research Board

Meeting, Washington D.C., January 1995

## Doctoral Dissertations Supervised by Lily Elefteriadou

### At the University of Florida:

1. Xi Duan (In progress)
2. Aschkan Omidvar (In progress)
3. Marilo Martin Gasulla (In progress)
4. Thomas Chase (In progress) – Traffic simulation for Pedestrians
5. Gustavo Riente (In progress) – Optimizing design for safety and operations
6. Fabio Sasahara (In progress) – Freeway operations
7. Mahmoud Pourmerab (In progress) – Signal Control Optimization for AV/CV
8. Pruthvi Manjunatha (Exp. 8/18) – Modeling of Driver Behavior in Traffic Simulation
9. Clark Letter 5/17 – Traffic Management at Merge Junctions Using Advanced Vehicle Technologies
10. Yinan Zheng 8/16, Pedestrian Traffic Flow Models
11. Zhuofei Li, 8/15, Signal Control Optimization for Automated Vehicles at Isolated Signalized Intersections
12. Cuie Lu, 12/11, Effect of Incidents on Freeway Capacity and Operations
13. Daniel Sun, 8/09, Lane Changing Algorithms for Urban Streets
14. Alexandra Kondyli, 8/09, Driver Behavior and Probabilistic Breakdown
15. Ashwin Arulsevan (Co-Advisor with Dr. Panos Pardalos, Industrial and Systems Engineering Department), 8/09, Evacuation Optimization Strategies
16. Xiao Cui, 12/06 Travel Time Estimation for Arterials
17. Jiyoun Yeon, 8/06, Development of Travel Time Estimation Models as a Function of the Probability of Breakdown

### At Penn State University:

18. Joonyuo Kim, 8/06, Capacity Estimation for Two-Lane Highways Using Simulation
19. Clara Fang Fang, 8/04 Traffic Signal Optimization for Diamond Interchanges
20. Ponlathap Lertworawanich, 12/03, Capacity Estimation for Freeway Weaving Segments
21. Darren Torbic, 8/01, Development of Bicycle-Friendly Rumble Strips
22. Aimee Flannery, 12/98 (Technical Adviser), Design, Safety and Operational Quality of Roundabouts
23. John McFadden, 8/98, Development of Design Consistency Models for Two-Lane Highways

## M.Eng./M.S. Theses and Students Supervised by Lily Elefteriadou

1. Tyler Valilla (12/17) – Operational Effects of Geometry on Different Modes at Signalized Intersections
2. Gaurav Sultania (5/17) – No Thesis Option
3. Sonia Rahman (12/16) – Variable speed limits and their effect on the fundamental diagram

4. Michael Armstrong (5/16) – Queue spillback and interactions between freeways and arterials
5. Bryan St. George (8/14) – Two-capacity phenomenon
6. Hyoseuk Chang (12/12) – No Thesis Option
7. Vangelis Mintsis (8/12) – Freeway Management Using Ramp Metering and VSL
8. Corey Hill (8/12) – Lane Changing Models for Freeways
9. Clark Letter (8/11) – Algorithms for Variable Speed Limit Implementation in CORSIM
10. Barbara Barquetta Martin (12/10) – Advanced Vehicle Technologies and Their Impact on Traffic Operations
11. George Chrysikopoulos (5/10) – Freeway Travel Time Estimation As a Function of Demand
12. Irene Soria, M.S., (5/10) – Assessment of Car-Following Models Using Field Data
13. Yen-Wen Shao (5/10) – No Thesis Option
14. Xie Li, M.S., (12/09) – No Thesis Option
15. Aaron Elias, M.S., (8/09) – Roundabout Operations
16. Ramakrishna Yennamani - deceased, M.S. (12/08) – Travel Time Estimation for Freeways
17. Mayank Jain, M.S. (8/08) – Work Zone Capacity for Arterials
18. Hongsheng Xu, M.S. (5/08) – No Thesis Option
19. Vaishali Patankar, M.S. (8/06) – No Thesis Option
20. Pinky Pakalapaty, M.S. (8/06) – No Thesis Option
21. Diego Arguea, M.S. (5/06), Thesis: Simulation-Based Approach For Estimating Capacity at Freeway Work Zones
22. Alexandra Kondyli, M.S. (12/05), Thesis: Development Of An Arterial Link Travel Time Model With Consideration Of Mid-Block Effects
23. Kaining Wang, M.Eng. (5/04) – No Paper Option
24. Min-Seok Seo, M. Eng. (5/04) – No Paper Option
25. Wenteng Ma, M. Eng. (12/03) – No Paper Option
26. Michelle Adolini, M.S. (12/01), Thesis: Design Consistency Models for Passenger Cars and Trucks on Two-Lane Highways
27. Peng Lin, M.S. (8/01), Thesis: Ramp Metering Algorithm Based on Probabilistic Breakdown
28. Panjanin Mongonrattanawong, M.S. (8/01), Thesis: Traffic operational impacts of Variable Message Signs
29. Jami Milanovich, M.Eng. (12/00) – No Paper Option
30. Ponlathap Lertworawanich, M.S. (5/00), Thesis: Capacity Modeling for Type A Freeway Weaving Segments
31. Matthew Lorenz, M.S. (5/00), Thesis: Defining Capacity and Breakdown at Freeway Facilities
32. Timothy Bezio, M.Eng. (5/99), Paper: Parking Management During Special Events in State College
33. Jodie O'Leath-Evans, M.S. (8/98), Thesis: Freeway Merge Modeling Using Markov Chains (Won the University Transportation Centers' Pikarsky-Wootan Award for M.S. Theses in Engineering and Science, January 2000)
34. Nathan Webster, M.S. (8/97), Thesis: Development of Passenger Car Equivalents for Freeway Segments
35. Ying Wang, M.S. (5/97), Thesis: Using Neural Networks for Traffic Signal Optimization
36. Brian Harman, M.S. (12/96), Thesis: Effects of the Area Type Factor on Saturation Flows
37. Nagaraj Nunna, M.Eng. (12/96) Paper: Using Transyt-7F and NETSIM in the Traffic

- Assignment Process
38. Tien-Jung Ho, M.Eng. (8/96), Paper: Development of a Simulation Model for Permitted Left Turns

## Teaching and Advising

### Courses Taught at UF

TTE 6259 Urban Streets Simulation and Control  
TTE 6815 Transportation Corridor Operations  
TTE 6267 Traffic Flow Theory

### Courses Taught at PSU

CE 522 - Traffic Simulation and Control  
CE 525 - Traffic Flow Theory  
CE 598E - Data Analysis in Transportation - Co-taught with K. Goulias  
CE 423 - Traffic Operations

### Undergraduate Honors Theses (PSU)

Timothy Bezio, 12/97 Optimization of Three Traffic Signals in Florida Using EVIPAS  
Nathan Webster, 12/95 Comparison of Three Models for Signalized Intersection Analysis

## Professional Activities

### Offices and Committee Membership

Editorial Advisory Board Member, Transportation Research Part B: Methodological (since November 2004)  
Editorial Advisory Board Member, Transportation Research Part A: Policy and Practice (November 2000-February 2008)  
Editorial Advisory Board Member, Transportation Letters (since January 2008)  
Member, Operations and Preservation Group Executive Board, Transportation Research Board (since August 2016)  
Chair, Highway Capacity and Quality of Service Committee, Transportation Research Board (2010-2016), and:  
Secretary of the Committee (2004 – 2010), Chair of the Part V task force (January 2002-November 2003), Chair of the Two-Lane Highways Subcommittee (March 2000-March 2003), Chair of Paper Review Subcommittee (January 1999-January 2001), Chair of the Ramps and Weaving subgroup (January 1997-March 2000), Member of the Simulation Task Force (since January 1997); Committee Member (since 1996).  
Member, Traffic Flow Theory Committee, Transportation Research Board (2005-2013)  
President, Executive Board of the Council of University Transportation Centers (since June 2017) –  
Also served as Vice-President, Treasurer, Secretary, and Member (since June 2012)  
President, Executive Board of the Research and Education Division, ARTBA (September 2014-

September 2015) and Vice President (September 2013 – September 2014)  
Chair, Traffic Simulation, ITE Traffic Engineering Council (March 1996-March 2000)  
Member, Vehicle Size and Weight Committee, Transportation Research Board (January 1996-  
January 2004)  
Member, Y2K Committee, ITE (January 1996-January 2000)  
Member, Advanced Technologies in Transportation Committee, ASCE (January 1997-December  
2017); Chair, Strategic Directions subcommittee (Aug. 2014-Aug. 2016)  
Member, Phi Kappa Phi Honor Society (since May 1989)

### Reviewing Activities

Member, NCHRP IDEA Panel (April 2015-February 2017)  
Member, Technical Coordinating Committee on Reliability, SHRP II (March 2007-July 2008)  
Panel Member, Modelers Group, NGSIM project, FHWA, (January 2003-August 2005)  
Fulbright – Reviewer for France, Netherlands, Belgium, EU, (November 2002-January 2005)  
Panel Member, NCHRP Synthesis Project 34-06, “Convertible Roadways and Lanes”  
Panel Member, NCHRP Project 3-55(5), Weaving Area Capacity and Level of Service on  
Freeways, Arterials and Collector-Distributor Roads  
Reviewer, Traffic Engineering, 2<sup>nd</sup> Edition, Textbook by R. Roess, W. McShane and E. Prassas  
Reviewer of technical papers for TRB, Transportation Research Parts A, B and C, ASCE Journal of  
Transportation Engineering, ASCE, Journal of Computing Engineering, ASCE, Microcomputer  
Applications in Civil Engineering, Computer Aided Civil and Infrastructure Engineering, IEEE

### Other

Scientific committee member, ASCE’s 10<sup>th</sup> Conference of Applications of Advanced Technologies  
in Transportation (AATT), Athens, Greece, May 2008  
International Steering Committee Member, 5<sup>th</sup> International Symposium on Highway Capacity and  
Quality of Service, Yokohama, Japan, July 2006  
International Steering Committee Member, TRANSTEC, Athens, Greece, September 1-5, 2004  
Host, Mid-year meeting of the Highway Capacity and Quality of Service Committee, State College,  
PA, July 21-24, 2004  
Co-Organizer, 2003 Traffic Engineering and Safety Conference, State College, PA, December  
2003  
Instructor, NHI Course on the Highway Capacity Manual, Trenton, NJ (September 2003)  
Attendee, ASCE Excellence in Civil Engineering Education (EXCEED) Workshop, Arizona, August  
2003  
Paper Review Coordinator and Steering Committee Member for the Pacific Rim Conference on  
Highway Capacity, Maui, June 2000  
Member, Committee on Emergency and Transit Preemption, Centre Regional Planning  
Commission / CATA, State College, PA, August 2000 – August 2001  
Member, Operations Research Program at Penn State University (January 1999-June 2004)

## **Academic Service at the University of Florida**

### College and University

Director, University of Florida Transportation Institute (since July 2013)  
Promotion and Tenure Committee, Chair, College of Engineering (August 2014-August 2016); Member (August 2012-August 2014)  
University Faculty Senate (August 2008 – August 2010)  
COE Awards Committee, Member (2012-2013)  
Member, Transportation Study Committee, UF Master Plan (October 2004-May 2006)  
Member, COE Strategic Planning for Sustainable Infrastructure (September 2009 – August 2010)

### Department of Civil and Coastal Engineering (CCE)/Engineering School for Sustainable Infrastructure and the Environment (ESSIE)

ESSIE Advisory Council (October 2011 – July 2014); Chair (Aug 2013-July 2014)  
ESSIE Communications Committee (August 2013-July 2014)  
CCE Strategic Planning Committee (January 2007-December 2008)  
Promotion and Tenure Committee (February 2006-December 2008)  
Alumni Fellowship Committee (July 2005-June 2006)  
Transportation Group Coordinator (since July 2004)  
Transportation Faculty Search Committee Chair (July 2004-May 2005)  
Transportation Research Center Director (July 2004 – present)

## **Academic Service at Penn State University**

### College and University

Department Representative to the Engineering Faculty Council (August 2002-June 2004)  
COE Nominations Committee (August 2002 – August 2003)  
Undergraduate Committee, College of Engineering (August 2002-August 2003)  
Faculty Advisor, ITE Student Chapter, Penn State University (August 1995-June 2004)  
Department Representative to the College of Engineering Sabbatical Committee (March 2002-March 2003)  
Member, Task Force for Pedestrian Crossings on Atherton Street (January 2000 – August 2001)  
Panel Member, New Engineering Faculty Workshop, August 1997, August 1998

### Pennsylvania Transportation Institute

Director, Center for Traffic Operational Analysis, Penn State University (September 2000-June 2004)  
Chair, Library Committee (August 2002-August 2003)  
Member, Continuous Quality Improvement Committee (May 2002-August 2003)  
Chair, Information Technology Committee (August 2000-August 2003)  
Acting Director, Transportation Operations Program (August 1999-2000)

### Department of Civil and Environmental Engineering

Promotion and Tenure Committee (August 2002-August 2003)  
Chair, Surcharge Committee (September 1999-August 2000)  
Transportation Faculty Search Committee (January 1998-April 1998 and January 1999-March 1999)  
Surcharge Committee (May 1997 - August 1998)  
Undergraduate Committee (October 1996 - August 1997)  
Climate Committee (August 1996 - August 1997)  
Graduate Committee (August 1995 - July 1996 and August 2000-August 2001)  
Steering Committee, Women in Civil and Environmental Engineering (August 1995-August 1997)  
Undergraduate Awards Committee, Department of Civil and Environmental Engineering (August 1994 -July 1995)

