

Eleni Christofa

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EDUCATION

- MAY 2012 **University of California, Berkeley**
Doctor of Philosophy in Civil and Environmental Engineering
Thesis: '**Traffic Signal Optimization with Transit Priority: A Person-based Approach**'
Minors: City and Regional Planning, Industrial Engineering and Operations Research
Advisor: Prof. A. Skabardonis
- MAY 2008 **University of California, Berkeley**
Master of Science in Civil and Environmental Engineering
Program: Transportation Engineering
- JULY 2007 **National Technical University of Athens (NTUA), Greece**
Diploma in Civil Engineering with specialization in Transportation Eng. (5-year degree)
Thesis: '**Travel Time Estimation in Signalized Arterials Under Incident Conditions**'
Advisor: Prof. M.G. Karlaftis

RESEARCH INTERESTS

Traffic Operations and Control
Sustainable Traffic Management
Public Transportation Systems
Intelligent Transportation Systems
Transportation Safety

RESEARCH AND WORK EXPERIENCE

University of Massachusetts Amherst

2012–PRESENT *Assistant Professor*, Department of Civil and Environmental Engineering

University of California, Berkeley

2007–2012 *Graduate Student Researcher*

2010–2012 **Advanced Signal Control Algorithms** (US DOT Exploratory Advanced Research)
Partners for Advanced Transportation Technology (PATH)
Developing Connected Vehicle-based traffic signal control algorithms

2009–2010 **Traffic Signal Optimization with Transit Priority**
U.C. Berkeley Center for Future Urban Transport, A Volvo Center of Excellence
Development of signal control systems with transit priority for conflicting transit routes

2008–2009 **Integrated Corridor Management (ICM)**
Partners for Advanced Transportation Technology (PATH)
Modeling and simulation methods for Integrated Corridor Management

2008 **Effectiveness of Adaptive Traffic Control for Arterial Signal Management**
Partners for Advanced Transportation Technology (PATH)
Development of signal control strategies that mitigate vehicle delays and emissions

- 2007 **Traffic Data Collection Technologies for Travel Time Estimation**
California Center for Innovative Transportation (CCIT)
 Feasibility study on innovative ways of estimating travel times (e.g., cell phones)

Cambridge Systematics, Inc., Oakland, CA

- 2008 *Summer Intern*
 Modeling traffic conditions on California corridors using simulation packages

Technical Office of S. Prokopiou, Mytilene, Greece

- 2005 *Summer Intern*
 Supervision of pavement construction and maintenance of roads in Lesvos, Greece

HONORS & AWARDS

- 2017 Outstanding Young Member Award, Transportation Research Board of the National Academies of Sciences, Engineering, and Medicine
 2017 Student-Centered Teaching & Learning Fellow, University of Massachusetts Amherst
 2016 Innovation Fellow, University of Massachusetts Amherst
 2015 Certificate of Outstanding Contribution in Reviewing, Transportation Research Part C: Emerging Technologies
 2014 Open Education Initiative Grant, University of Massachusetts Amherst
 2014 Sustainability Curriculum Initiative Grant, University of Massachusetts Amherst
 2014 ASCE ExCEEd Fellowship, American Society of Civil Engineers
 2013 Travel Scholarship for the Bicycle and Pedestrian Curriculum Workshop, Portland State University
 2011 University of California Transportation Center Award
 2009–2011 Dwight David Eisenhower Transportation Fellowship
 2007 Gordon F. Newell Memorial Fellowship (U.C. Berkeley)
 2007 Eugenides Foundation Scholarship for Graduate Studies
 2002, 2004, 2006 Nikolaos G. Papadimitriou Foundation Scholarship
 2004 Scholarship from the Greek Institution of National Scholarships

PROJECTS

Awarded Projects (external)

- 2018–2019 Christofa, E. (PI) with K. Pollitt, K. Goins, and S. Lemon. Public Health Assessment for Transportation Projects, Massachusetts Department of Transportation. \$166,498 [awarded; not started]
 2018 Christofa, E. (co-PI) with K. Pollitt. Calibration of the Integrated Transport and Health Impact Modelling Tool (ITHIM) for Use in Massachusetts, Massachusetts Department of Public Health. \$60,560
 2017–2022 Christofa, E. (co-PI) with M.A. Knodler, C. Fitzpatrick, S.C. Roberts, and E.J. Gonzales. U.S. Department of Transportation through the Safety Research using Simulation (SAFER-Sim) University Transportation Center. \$503,530
 2017 Christofa, E. (PI) with K. Pollitt. Zero Emission Transit Bus and Refueling Technologies and Deployment Status, Massachusetts Department of Transportation. \$74,951
 2017–2018 Christofa, E. (PI) with E.J. Gonzales. Commuter Bus Demand: Incentives for Modal Shift and Impact on GHG Emissions, Massachusetts Department of Transportation. \$73,988

- 2015–2018 Christofa, E. (co-PI) with M. Ben-Akiva, J. Trancik, and S. Gao. Mobility Electronic Market for Optimized Travel. U.S. Department of Energy, Advanced Research Projects Agency-Energy (ARPA-E). \$3,990,128 (UMass portion: \$500,000)
- 2014–2016 Christofa, E. (PI) with M.A. Knodler. Operational and Emission Analyses of Roundabouts under Varied Vehicle and Pedestrian Demands. U.S. Department of Transportation through the New England University Transportation Center. \$164,503
- 2014–2016 Christofa, E. (co-PI) with M.A. Knodler, E.J. Gonzales, and S. Samuel. U.S. Department of Transportation through the Safety Research using Simulation (SAFER-Sim) University Transportation Center. \$282,944
- 2014–2016 Christofa, E. (co-PI) with M.A. Knodler, D.L. Fisher, and D. Ni. U.S. Department of Transportation through the Safety Research using Simulation (SAFER-Sim) University Transportation Center. \$284,750
- 2014–2016 Christofa, E. (PI) with M.A. Knodler. Impact of Deflection Angle on Roundabout Driver Behavior. U.S. Department of Transportation through the Safety Research using Simulation (SAFER-Sim) University Transportation Center. \$45,000
- 2014–2016 Christofa, E. (co-PI) with M.A. Knodler. Development and Evaluation of Infrastructure Strategies for Safer Cycling. U.S. Department of Transportation through the Safety Research using Simulation (SAFER-Sim) University Transportation Center. \$45,000
- 2013–2015 Christofa, E. (PI). Signal Timing Optimization for Improved Mobility and Air Quality. U.S. Department of Transportation through the New England University Transportation Center. \$99,975
- 2012–2015 Christofa, E. (PI) with J. Collura. A Person-based Comparison of Transit Preferential Treatments on Signalized Arterial Corridors. U.S. Department of Transportation through the New England University Transportation Center. \$60,068

Awarded Projects (internal)

- 2018–2019 Christofa, E. (co-PI) with K. Peterman, C. Butler, S. Gao, E. Kumpel. Informal Mentoring: Navigating Mentoring Challenges when No Model Exists, Mutual Mentoring Team Grant, The Institute for Teaching Excellence and Faculty Development. \$6,000

PUBLICATIONS (* indicates student I advised; ** indicates student I supervised)

Refereed Journal Publications

1. **Tainter, F., **Ryan, A., Fitzpatrick, C., **Christofa, E.**, and Knodler, M. 2018. Evaluation of Downstream Merge Behaviors Resulting from Driver Lane Choice. *Transportation Research Record; Journal of the Transportation Research Board* [accepted]
2. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2018. An Analytical Model to Conduct a Person-based Evaluation of Transit Preferential Treatments on Signalized Arterials. *Transportation Research Part C: Emerging Technologies*, 90:411–432.
3. *Fournier, N., **Christofa, E.**, and Knodler, M.A. 2017. A Mixed Methods Investigation of Bicycle Exposure in Crash Rates, *Accident Analysis & Prevention*, doi.org/10.1016/j.aap.2017.02.004 [in press]

4. **Yu, Z., Gayah, V.V., and **Christofa, E.** 2017. Person-based Signal Timing Optimization to Account for Flexible Cycle Lengths and Uncertain Transit Vehicle Arrivals. *Transportation Research Record: Journal of the Transportation Research Board*, 2620:31–42.
5. Chavis, C., and **Christofa, E.**, 2017. A Real-Time Signal Control Strategy for Mitigating the Impact of Bus Stops at Urban Signalized Arterials. *Journal of Intelligent Transportation Systems: Technology, Planning, and Operations*, 21(5): 349–363.
6. *Fournier, N., **Christofa, E.**, and Knodler, M.A. 2017. A Sinusoidal Model for Seasonal Bicycle Demand Estimation. *Transportation Research Part D: Transport and the Environment*, 50:154–169.
7. *Farid, Y.Z., **Christofa, E.**, and Paget-Seekins, L. 2016. Short-Term Bus Travel Time Estimation Using Low Resolution Automated Vehicle Location Data. *Transportation Research Record: Journal of the Transportation Research Board*, 2539:113–118.
8. **Wolput, B., **Christofa, E.**, and Tampère, C.M.J. 2016. Optimal Cycle Length Formulas for Intersections With or Without Transit Signal Priority. *Transportation Research Record: Journal of the Transportation Research Board*, 2558:78–91.
9. **Christofa, E.**, Ampountolas, K., and Skabardonis, A. 2016. Arterial Traffic Signal Optimization: A Person-based Approach. *Transportation Research Part C: Emerging Technologies*, 66:27–47.
10. *Roach, D., **Christofa, E.**, and Knodler Jr., M.A. 2016. Safety Assessment before and after Implementation of Roundabouts through Microsimulation. *Advances in Transportation Studies, an International Journal*, 2016 Special Issue, Vol.2.
11. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2015. Dedicated Bus and Queue Jumper Lanes at Signalized Intersections with Nearside Bus Stops: Person-Based Evaluation. *Transportation Research Record: Journal of the Transportation Research Board*, 2484:182–192.
12. *Khalighi, F., and **Christofa, E.** 2015. Emission-based Signal Timing Optimization for Isolated Intersections. *Transportation Research Record: Journal of the Transportation Research Board*, 2487:1–14.
13. Argote-Cabañero, J., **Christofa, E.**, and Skabardonis, A. 2015. Connected Vehicle Penetration Rate for Estimation of Arterial Measures of Effectiveness. *Transportation Research Part C: Emerging Technologies*, 60:298–312.
14. Gonzales, E.J., and **Christofa, E.** 2014. Empirical Assessment of Bottleneck Congestion with a Constant and Peak Toll: San Francisco-Oakland Bay Bridge. *EURO Journal on Transport and Logistics*, 3(3&4):267–288.
15. **Christofa, E.**, Papamichail, I., and Skabardonis, A. 2013. Person-based Traffic Responsive Signal Control Optimization. *IEEE Transactions on Intelligent Transportation Systems*, 14(3):1278–1289.
16. **Christofa, E.**, Argote, J., and Skabardonis, A. 2013. Arterial Queue Spillback Detection and Signal Control based on Connected Vehicle Technology. *Transportation Research Record: Journal of the Transportation Research Board*, 2356:61–70.
17. Reger, D., **Christofa, E.**, Guler, I., and Madanat, S. 2013. Estimation of Pavement Crack Initiation Models by Combining Experimental and Field Data. *ASCE Journal of Infrastructure Systems*, 19(4):434–441.
18. Skabardonis, A., Geroliminis, N., and **Christofa, E.** 2013. Prediction of Vehicle Activity for Emissions Estimation Under Oversaturated Conditions Along Signalized Arterials. *Journal of Intelligent Transportation Systems: Technology, Planning, and Operations*, 17(3):191–199.
19. **Christofa, E.**, and Skabardonis, A. 2011. Traffic Signal Optimization with Application of Transit Signal Priority to an Isolated Intersection. *Transportation Research Record: Journal of the Transportation Research Board*, 2259:192–201.

Refereed Conference Publications

1. Gonzales, E.J., and **Christofa, E.** 2018. Evaluating the Effect of Freight Deliveries on Signalized Arterials and Optimizing Real-Time Signal Control, *Transportation Research Board 97th Annual Meeting*, 7–11 January, Washington, D.C., Paper No. 18-05141.
2. *Fournier, N., **Christofa, E.**, Akkinpally, A., and Lima Azevedo, C. 2018. An Integration of Population Synthesis Methods for Agent-based Microsimulation. *Transportation Research Board 97th Annual Meeting*, 7–11 January, Paper No. No. 18-03141.
3. *Fournier, N., Deliali, A., and **Christofa, E.** 2018. A Comparative Safety Analysis of Bicycle Infrastructure Treatments at Intersections. *Transportation Research Board 97th Annual Meeting*, 7–11 January, Washington, D.C., Paper No. 18-05896.
4. Lima Azevedo, C., Seshadri, R., Gao, S., Atasoy, B., Akkinpally, A., **Christofa, E.**, Zhao, F., Trancik, J., Ben-Akiva, M. 2018. TRIPOD: Sustainable Travel Incentives with Prediction, Optimization, and Personalization. *Transportation Research Board 97th Annual Meeting*, 7–11 January, Washington, D.C., Paper No. 18-06769.
5. *Wolfgram, J., Huang, P.X., Zhao, Y., **Christofa, E.**, and Xiao, L. 2018. A Quick and Reliable Incident Detection Methodology Using Connected Vehicle Data. *Transportation Research Board 97th Annual Meeting*, 7–11 January, Washington, D.C., Paper No. 18-05089.
6. **Yu, Z., Gayah, V., and **Christofa, E.** 2018. Person-based Signal Timing Optimization with Flexible Cycle Lengths and Phase Rotation. *Transportation Research Board 97th Annual Meeting*, 7–11 January, Washington, D.C., Paper No. 18-04332.
7. **Ryan, A., **Tainter, F., **Christofa, E.**, and Knodler, Jr., M.A. 2017. Alternative Merge Design at Intersection Downstream Corridors: A Driving Simulation Study. *2017 Road Safety & Simulation International Conference*, 17–19 October, The Hague, Netherlands.
8. **Sabhanayagam, A., Knodler, Jr., M.A., **Christofa, E.**, Hajiseyedjavadi, F., and Khalighi, F. 2017. Impact of S-Curves on Speed in a Modern Roundabout. *2017 Road Safety & Simulation International Conference*, 17–19 October, The Hague, Netherlands.
9. *Wolfgram, J., **Christofa, E.**, and Knodler, Jr., M.A. 2017. Microsimulation Safety Assessment of Continuous Flow Intersections. *2017 Road Safety & Simulation International Conference*, 17–19 October, The Hague, Netherlands.
10. *Fournier, and **Christofa, E.** 2017. Network work trip assignment for agent-based simulation accounting for travel time. *5th IEEE International Conference on Models and Technologies for Intelligent Transportation Systems*, 26–28 June, Naples, Italy.
11. Gonzales, E.J., and **Christofa, E.** 2017. Real-time Signal Control Accounting for Urban Freight Deliveries. *5th IEEE International Conference on Models and Technologies for Intelligent Transportation Systems*, 26–28 June, Naples, Italy.
12. **Yu, Z., Gayah, V.V., and **Christofa, E.** 2017. Person-based Signal Timing Optimization to Account for Flexible Cycle Lengths and Uncertain Transit Vehicle Arrivals. *Transportation Research Board 96th Annual Meeting*, 8–12 January, Washington, D.C., Paper No. 17-00983.
13. *Fournier, N., **Christofa, E.**, and Knodler, M.A. 2017. Bicycle Infrastructure from the Driver's Seat: Evaluating Bicycle Infrastructure Using a Driving Simulator. *Transportation Research Board 96th Annual Meeting*, 8–12 January, Washington, D.C., Paper No. 17-01981.
14. *Farid, Y.Z., and **Christofa, E.** 2017. Real-time Signal Control with Transit Priority Window: A Person-based Approach. *Transportation Research Board 96th Annual Meeting*, 8–12 January, Washington, D.C., Paper No. 17-05493.
15. *Farid, Y.Z., and **Christofa, E.** 2016. Short-Term Bus Travel Time Estimation Using Low Resolution Automated Vehicle Location Data. *Transportation Research Board 95th Annual Meeting*, 10–14 January, Washington, D.C., Paper No. 16-0166.

16. *Fournier, N., **Christofa, E.**, and Knodler, M. 2016. The Bicycle Cycle: A Sinusoidal Model for Predicting Bicycle Demand. *Transportation Research Board 95th Annual Meeting*, 10–14 January, Washington, D.C., Paper No. 16-4182.
17. **Wolput, B., **Christofa, E.**, and Tampère, C.M.J. 2016. Optimal Cycle Length Formulas for Intersections with or without Transit Signal Priority. *Transportation Research Board 95th Annual Meeting*, 10–14 January, Washington, D.C., Paper No. 16-1804.
18. *Roach, D., **Christofa, E.**, and Knodler Jr., M.A. 2016. Roundabout Safety Assessment through Microsimulation. *2015 Road Safety & Simulation International Conference*, 6–8 October, Orlando, FL.
19. **Tainter, F., Knodler, Jr., M.A., **Fitzpatrick, C., and **Christofa, E.** 2015. Analysis of Driver Performance and Operations at Intersection Auxiliary Through Lanes. *2015 Road Safety & Simulation International Conference*, 6–8 October, Orlando, FL.
20. **Wolput, B., Tampère, C.M.J., and **Christofa, E.** 2015. A New Stochastic Mesomodel for Optimizing Multi-Modal Signal Settings for Networks. *2015 IEEE 18th International Conference on Intelligent Transportation Systems*, 15–18 September, Canary Islands, Spain.
21. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2015. Person-Based Evaluation of Dedicated Bus Lanes and Queue Jumper Lanes at Signalized Intersections with Near-Side Bus Stops. *Transportation Research Board 94th Annual Meeting*, 11–15 January, Washington, D.C., Paper No. 15-1426.
22. *Khalighi, F., and **Christofa, E.** 2015. Emission-based Signal Timing Optimization for Isolated Intersections. *Transportation Research Board 94th Annual Meeting*, 11–15 January, Washington, D.C., Paper No. 15-5871.
23. *Roach, D., **Christofa, E.**, and Knodler Jr., M.A. 2015. Evaluating the Applicability of SSAM for Modeling the Safety of Roundabouts. *Transportation Research Board 94th Annual Meeting*, 11–15 January, Washington, D.C., Paper No. 15-5207.
24. **Wolput, B., **Christofa, E.**, Carbonez, A., Skabardonis, A., and Tampère, C.M.J. 2015. Updating Webster Formula for Optimal Traffic Signal Settings with Transit Signal Priority. *Transportation Research Board 94th Annual Meeting*, 11–15 January, Washington, D.C., Paper No. 15-2658.
25. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2014. A Person-based Evaluation of Transit Preferential Treatments on Signalized Arterials. *Transportation Research Board 93rd Annual Meeting*, 12–16 January, Washington, D.C., Paper No. 14-2995.
26. **McKinnon, I., Knodler, M., and **Christofa, E.** 2013. Operational and Safety-based Analyses of Varied Toll Plaza Configurations. *Road Safety and Simulation–International Conference*, 22–25 October, Rome, Italy.
27. **Christofa, E.** and Skabardonis, A., 2013. Robust Signal Timing Optimization vs. Adaptive Control on High Volume Arterials. *mobil.TUM 2013, International Scientific Conference on Mobility and Transport*, 18–19 June, Munch, Germany.
28. **Christofa, E.**, Aboudolas, K., and Skabardonis, A. 2013. Arterial Traffic Signal Optimization: A Person-based Approach. *Transportation Research Board 92nd Annual Meeting*, 13–17 January, Washington, D.C., Paper No. 13-3395.
29. **Christofa, E.**, Argote, J., and Skabardonis, A. 2013. Arterial Queue Spillback Detection and Signal Control based on Connected Vehicle Technology. *Transportation Research Board 92nd Annual Meeting*, 13–17 January, Washington, D.C., Paper No. 13-4903.
30. **Christofa, E.**, Papamichail, I., and Skabardonis, A. 2012. Person-based Traffic Signal Optimization for Real-Time Applications. *Transportation Research Board 91st Annual Meeting*, 22–26 January, Washington, D.C., Paper No. 12-2228.
31. Argote, J., **Christofa, E.**, Xuan, Y., and Skabardonis, A. 2012. Estimation of Arterial Measures of Effectiveness with Connected Vehicle Data. *Transportation Research Board 91st Annual Meeting*, 22–26 January, Washington, D.C., Paper No. 12-1493.

32. Skabardonis, A., Geroliminis, N., and **Christofa, E.** 2012. Vehicle Emissions Estimation Under Oversaturated Conditions along Signalized Arterials. *Transportation Research Board 91st Annual Meeting*, 22–26 January, Washington, D.C., Paper No. 12-3899.
33. Argote, J., **Christofa, E.**, Xuan, Y., and Skabardonis, A. 2011. Estimation of Measures of Effectiveness based on Connected Vehicle Data. *14th International IEEE Conference on Intelligent Transportation Systems*, 5–7 October, Washington, D.C.
34. Skabardonis, A., and **Christofa, E.** 2011. Impact of Transit Signal Priority on Level of Service at Signalized Intersections. *6th International Symposium on Highway Capacity and Quality of Service World Congress*, June 28–July 1, Stockholm, Sweden.
35. Skabardonis, A., and **Christofa, E.** 2011. Evaluation of Methodologies for the Design and Analysis of Freeway Weaving Sections. *1st International Conference on Access Management*, 14–17 June, Athens, Greece.
36. **Christofa, E.**, and Skabardonis, A. 2011. Traffic Signal Optimization with Transit Signal Priority: Application to an Isolated Intersection. *Transportation Research Board 90th Annual Meeting*, 23–27 January, Washington, D.C., Paper No. 11-3092.
37. Skabardonis, A., Geroliminis, N., and **Christofa, E.** 2010. Improved Analysis Framework for Emissions Estimation Under Oversaturated Conditions Along Signalized Arterials. *5th International Congress on Transportation Research in Greece*, 27–28 September, Volos, Greece.
38. **Christofa, E.M.**, and Skabardonis, A. 2010. Traffic Signal Optimization with Conditional Transit Signal Priority for Conflicting Transit Routes. *12th World Conference on Transportation Research*, 11–15 July, Lisbon, Portugal.
39. **Christofa, E.M.**, and Madanat, S.M. 2010. Development of Pavement Crack Initiation Models by Combining Experimental and Field Data. *Transportation Research Board 89th Annual Meeting*, 10–14 January, Washington, D.C., Paper No. 10-1096.
40. **Christofa, E.M.**, and Vlahogianni, E.I. 2008. Incident Impacts on Travel Time on Urban Signalized Arterials. *10th ASCE International Conference on Application of Advanced Technologies in Transportation (AATT)*, 27–31 May, Athens, Greece.

Other Conference Proceedings

1. Chavis C., **Christofa, E.**, 2014. A Real-Time Signal Control Strategy for Mitigating the Impact of Bus Stops on Urban Arterials. *Symposium Celebrating 50 Years of Traffic Flow Theory*, 11–13 August, Portland, OR.
2. Kopelias, P., Papadimitriou, F., Skabardonis, A., and **Christofa, E.**, 2010. Applications of Advanced Analysis Tools for Freeway Performance Measurement. *12th World Conference on Transportation Research*, 11–15 July, Lisbon, Portugal.

Project Reports

1. **Christofa, E.**, Gonzales, E.J., Lyman, C., Campbell, N., and Fournier, N. 2018. Commuter Bus Demand, Incentives for Modal Shift, and Impact on GHG Emissions. Massachusetts Department of Transportation, Office of Transportation Planning.
2. **Christofa, E.**, and Knodler, M.A. 2018. Operational and Emission Analyses of Roundabouts under Varied Vehicle and Pedestrian Demands. New England University Transportation Center Report, Project Number: UMAR25-24.
3. **Christofa, E.**, Knodler, M.A., Sabhanayagam, A., Hajiseyedjavadi, F., Khalighi, F., and Campbell, N. 2018. Impact of S-Curves on Speed in a Modern Roundabout. Safety Research using Simulation (SAFER-Sim) University Transportation Center Report.
4. **Christofa, E.**, Pollitt, K., Chhan, D., Deliali, A., Gaudreau, J., and El Sayess, R. 2017. Zero-Emission Transit Bus and Refueling Technologies and Deployment Status. Massachusetts Department of Transportation, Office of Transportation Planning.

5. **Christofa, E.**, Ganz, A., Knodler, M.A., Wolfgram, J., and Fournier, N. 2017. Visually Impaired Pedestrian Safety at Roundabout Crossings. Safety Research using Simulation (SAFER-Sim) University Transportation Center Report.
6. **Christofa, E.**, Knodler, M.A., and Fournier, N. 2017. Development and Evaluation of Infrastructure Strategies for Safer Cycling. Safety Research using Simulation (SAFER-Sim) University Transportation Center Report.
7. Gongalla, B., Fitzpatrick, C., Knodler, M.A., **Christofa, E.**, and Samuel, S. 2017. A Driving Simulator Evaluation of Cross-Sectional Design Elements and the Resulting Driving Behaviors. Safety Research using Simulation (SAFER-Sim) University Transportation Center Report.
8. Knodler, M.A., **Christofa, E.**, and Tainter, F. 2016. Analysis of Driver Behavior and Operations at Intersection Short Lanes. Safety Research using Simulation (SAFER-Sim) University Transportation Center Report.
9. **Christofa, E.** 2016. Signal Timing Optimization for Improved Mobility and Air Quality. New England University Transportation Center Report, Project Number: UMAR24-14B.
10. **Christofa, E.**, and Collura, J. 2016. A Person-based Comparison of Transit Preferential Treatments on Signalized Arterial Corridors. New England University Transportation Center Report, Project Number: UMAR24-15.
11. Skabardonis, A., Shladover, S., **Christofa, E.**, et al. 2013. Advanced Traffic Control Signal Algorithms. Final Report for Interagency Agreement #65A0376, FHWA Exploratory Advanced Research Program Cooperative Agreement DTFH61-10-H-00002.

Other Publications

1. Campbell, R., **Christofa, E.**, Argote, J., Gayah, V., Guler, I., and Skabardonis, A. 2012. Operating a Diverging Diamond Interchange: A signal timing optimization strategy. Report submitted to the Transportation Research Board Traffic Signal Systems Committee.
2. **Christofa, E.** 2012. Traffic Signal Optimization with Transit Priority: A Person-based Approach. PhD Dissertation, University of California, Berkeley.
3. **Christofa, E.** 2007. Travel Time Estimation in Signalized Arterials Under Incident Conditions. Diploma Thesis, National Technical University of Athens [In Greek].

PRESENTATIONS

Conference & Workshop Presentations

1. *Khalighi, F., **Hajiseyedjavadi, F., **Christofa, E.**, and Knodler, M.A., 2017. Emission Impact of Pedestrians at Roundabouts, *5th International Conference on Roundabouts*, 8–10 May, Green Bay, WI.
2. **Christofa, E.** and Guler, S.I., 2017. Transit Priority for Improved Person Mobility, *MassDOT Innovation & Tech Transfer Exchange*, 7–8 March, Worcester, MA.
3. **Yu, Z., Gayah, V.V., and **Christofa, E.** 2016. Person-based Signal Timing Optimization to Account for Flexible Cycle Lengths and Uncertain Transit Vehicle Arrivals. *Transportation Engineering and Safety Conference*, 7–9 December, State College, PA.
4. *Fournier, N., **Christofa, E.**, and Knodler, M.A., 2016. Evaluating Driver Behavior at Bicycle Infrastructure Using a Driving Simulator, *10th University Transportation Centers Spotlight Conference: Pedestrian and Bicycle Safety*, 1–2 December, Washington, DC.
5. *Fournier, N., **Christofa, E.**, and Knodler, M.A., 2016. Development and Evaluation of Infrastructure Strategies for Safer Cycling, *SaferSim Webinar*, 13 September.

6. *Fournier, N., **Christofa, E.**, and Knodler, M.A., 2016. Bicycle infrastructure at intersections: An evaluation of driver behavior, *2016 Northeast Transportation Safety Conference*, 7–8 June, Worcester, MA.
7. **Christofa, E.** and Gonzales, E.J., 2016. Reliability of Transit Vehicle Arrival Prediction Using Connected Vehicle Data, *1st Symposium on Management of Future Motorway and Urban traffic Systems*, 2–3 June, Chania, Crete. [by invitation only]
8. *Fournier, N., **Christofa, E.**, and Knodler, M.A., 2016. Bicycle infrastructure at intersections: An evaluation of driver behavior, *4th SAFER-Sim Symposium*, 2–4 June, Madison, WI.
9. *Fournier, N., **Christofa, E.**, and Knodler, M.A., 2016. Bicycle infrastructure at intersections: An evaluation of driver behavior, *2016 ITE Northeastern District Annual Meeting*, 11-13 May, Portsmouth, NH.
10. *Fournier, N., **Christofa, E.**, and Knodler, M.A., 2016. Estimating Seasonal Bicycle Demand Using a Sinusoidal Model, *Data Science Research Symposium*, 22 April, Center for Data Science, University of Massachusetts, Amherst, MA.
11. *Farid, Y.Z. and **Christofa, E.**, 2016. Bus Travel Time Prediction Using Low Resolution Automated Vehicle Location Data, *Data Science Research Symposium*, 22 April, Center for Data Science, University of Massachusetts, Amherst, MA.
12. Guler, S.I., and **Christofa, E.** 2015. Bus Lanes and Pre-signals with Transit Signal Priority: Domains of Application, *2015 MASITE Annual Meeting*, 4–5 October, King of Prussia, PA.
13. **Christofa, E.**, and Guler, S.I. 2015. Bus Lanes and Signal Priority, *2015 Northeastern District Annual Meeting*, 13-15 May, Albany, NY.
14. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2015. Tools to Assess the Impacts of Transit Preferential Treatments: Analytical Techniques and Simulation Model. *ITS Massachusetts 20th Annual Meeting*, 5–6 May, Boston, MA.
15. Rahimi, M., Gonzales, E.J., **Christofa, E.**, Knodler, M., Riessman, R., and Gazillo, J. 2015. Uses of Data for Transportation System Analysis, *Data Science Launch Symposium*, University of Massachusetts, Amherst, 9 April, Amherst, MA.
16. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2015. Person-Based Evaluation of Dedicated Bus Lanes and Queue Jumper Lanes at Signalized Intersections with Near-Side Bus Stops. *16th UMass Annual Technical Day and Student Research Symposium*, March 26, Amherst, MA.
17. *Khalighi, F. and **Christofa, E.** 2015. A Real-Time Signal Control System to Minimize Emissions at Isolated Intersections. *16th UMass Annual Technical Day and Student Research Symposium*, March 26, Amherst, MA.
18. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2014. Person-Based Evaluation of Queue Jumper Lanes and Transit Signal Priority Strategies, *2014 Northeastern District Annual Meeting*, 14-16 May, Long Branch, NJ.
19. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2014. Evaluating the Impact of Transit Preferential Treatments on the Person Delay and Person Discharge Flow of Signalized Arterial Corridors. *10th Annual Transportation Student Research Symposium*, 2 April, University of Connecticut, Storrs, CT.
20. *Khalighi, F., and **Christofa, E.** 2014. Real-Time Signal Control System to Minimize Person Delay and Emissions. *10th Annual Transportation Student Research Symposium*, 2 April, University of Connecticut, Storrs, CT.
21. *Roach, D., **Christofa, E.**, and Knodler, M. 2014. Before and After Study of Double Roundabout: Queue Length, Gap Availability, and Gap Acceptance. *15th UMass Annual Technical Day*, March 27, Amherst, MA.
22. *Khalighi, F., and **Christofa, E.** 2014. Real-Time Signal Control System to Minimize Person Delay and Emissions. *15th UMass Annual Technical Day*, March 27, Amherst, MA.

23. *Farid, Y.Z., **Christofa, E.** and Collura, J. 2014. A Person-based Evaluation of Transit Preferential Treatments on Signalized Arterials. *15th UMass Annual Technical Day*, March 27, Amherst, MA.
24. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2014. Person-based Evaluation of Queue Jumper Lanes and Transit Signal Priority Strategies on Urban Arterials. *Institute of Transportation Engineers (ITE) 2014 Technical Conference and Exhibit*, 9-12 March, Miami, FL.
25. *Farid, Y.Z., **Christofa, E.**, and Collura, J. 2013. Person-Based Transit Preferential Treatments on Signalized Arterials. *Institute of Transportation Engineers (ITE) Northeastern District Annual Meeting*, 22-24 May, Northampton, MA.
26. **Christofa, E.**, and Campbell, R.J. 2013. Impact of Bus Stops on the Capacity of Signalized Intersections. *Institute of Transportation Engineers (ITE) Northeastern District Annual Meeting*, 22-24 May, Northampton, MA.
27. Gonzales, E.J., and **Christofa, E.** 2012. Bottleneck Congestion with a Fixed and Peak Toll: San Francisco - Oakland Bay Bridge. *1st European Symposium on Quantitative Methods in Transportation Systems*, 4-7 September, Lausanne, Switzerland.
28. Campbell, R., **Christofa, E.**, Argote, J., Gayah, V., Guler, I., and Skabardonis, A. 2012. Contest: Can You Operate a Diverging Diamond? *Transportation Research Board Traffic Signal Systems Committee Midyear Meeting*, 23-24 July, Irvine, CA.
29. Campbell, R., **Christofa, E.**, and Skabardonis, A. 2012. Impact of Transit Operations on Intersection Capacity. *Innovations in Traffic Flow Theory and Characteristics, and Highway Capacity and Quality of Service Symposium*, 19-22 June, Fort Lauderdale, FL.
30. Argote, J., **Christofa, E.**, and Skabardonis, A. 2012. Minimum Connected Vehicle Penetration Rate for Accurate Arterial Measures of Effectiveness Estimation. *18th University of California Transportation Center Student Conference*, 20 April, Berkeley, CA.
31. **Christofa, E.** 2012. Traffic Signal Optimization with Transit Priority. Institute of Transportation Studies Seminar Series, University of California, Berkeley, 16 March, Berkeley, CA.
32. **Christofa, E.** 2012. Network Traffic Signal Optimization with Transit Priority. Workshop for Doctoral Student Research in Transportation Operations and Traffic Control, *Transportation Research Board 91st Annual Meeting*, 22-26 January, Washington, D.C.
33. **Christofa, E.** 2011. Advanced Traffic Signal Control Algorithms with Connected Vehicle. *U.C. Berkeley Transportation Engineering Open House*, 1 April, Berkeley, CA.
34. **Christofa, E.** 2011. Traffic Signal Optimization with Transit Signal Priority: Application to an Isolated Intersection. *17th University of California Transportation Center Student Conference*, 24-25 February, Berkeley, CA.
35. **Christofa, E.** 2011. Network Traffic Signal Control with Transit Priority. 2011 Eisenhower Research Showcase, *Transportation Research Board 90th Annual Meeting*, 23-27 January, Washington, D.C.
36. **Christofa, E.** 2010. Traffic Signal Control Optimization with Transit Priority for Conflicting Transit Routes. *16th University of California Transportation Center Student Conference*, 1-2 April, Irvine, CA.
37. **Christofa, E.M.**, and Skabardonis, A. 2009. System-wide Signal Timing Optimization with Transit Priority for Conflicting Bus Routes. *INFORMS Annual Meeting 2009*, 11-14 October, San Diego, CA.

Invited Talks

1. **Christofa, E.**, 2018. Transportation Electrification, *Public Listening Sessions for Governor?s Commission on the Future of Transportation*, 11 June, Worcester, MA.
2. **Christofa, E.**, 2018. Leadership Panel, *Northeastern/Mid Colonial Institute of Transportation Engineers Student Leadership Summit*, 14 April, Amherst, MA.

3. **Christofa, E.**, 2017. Safety Assessment of Alternative Intersection Designs and Infrastructure Treatments, *Highway Engineering Invited Lecture, Transportation & Urban Infrastructure Studies, Morgan State University*, 13 September, Baltimore, MD.
4. **Christofa, E.**, 2017. Addressing Data Challenges for Bicycle Crash Analysis, *Transportation Research and Education Center for Portland State University Friday Transportation Seminar Series*, 10 March, Portland, OR.
5. **Christofa, E.**, 2016. Advanced Signalization and Control Strategies for Multimodal Networks, *Seminar at the Department of Civil and Environmental Engineering, University of Cyprus*, 7 June, Nicosia, Cyprus.
6. **Christofa, E.**, Farid, Y.Z., and Khalighi, F. 2016. Sustainable Urban Traffic Management using Advanced Technologies, *T3e Webinar, ITS PCB Program, Volpe National Transportation Systems Center*, 26 May.
7. **Christofa, E.**, 2016. Real-time Signal Control for Sustainable Traffic Management, *Meet the Jury Seminar, University of Leuven*, 25 May, Leuven, Belgium.
8. **Christofa, E.**, 2016. My Academic Life: Lessons Larned from GRad school and Tenure-Track Career, *UMass Women in Transportation Seminar Student Chapter*, 13 April, Amherst, MA.
9. **Christofa, E.**, 2015. Signal Control Strategies for Improved Person Mobility and Air Quality in Multimodal Transportation Systems, *Seminar at the Department of Transportation Planning and Engineering, School of Civil Engineering, National Technical University of Athens*, 16 December, Athens, Greece.
10. **Christofa, E.**, 2015. Assessing the Accuracy of SSAM for Modeling Roundabout Safety, *Research to Practice Safer-Symposium*, 25-27 February, San Juan, Puerto Rico.
11. **Christofa, E.**, 2014. Public Transportation Systems (Short Course), University of Santa Catarina, 4–8 August, Florianopolis, Brazil.
12. **Christofa, E.**, 2014. Transit Preferential Treatments: Person-based Evaluation and Control. *Penn State Transportation Seminar*, 1 May, State College, PA.
13. **Christofa, E.**, 2014. Transit Priority in Urban Traffic: Real-time Signal Control and Person-based Evaluation. SincroBUS International Project, Real-time Information and Control Systems for Buses, *ZAPTA*, 3 April, Florianopolis, Brazil
14. **Christofa, E.**, 2014. The Future of Transportation (Panel). *15th UMass Annual Technical Day*, March 27, Amherst, MA
15. **Christofa, E.**, 2014. Incorporating Pedestrian and Bicycle Transportation in a Transportation Sustainability Course. Pedestrian and Bicycle University Education Joint Subcommittee of Bicycle Transportation and Pedestrians Committees, *Transportation Research Board 93rd Annual Meeting*, 12–16 January, Washington, D.C.
16. **Christofa, E.**, 2013. Graduate School Academic Panel: I'm interested in pursuing a career in academics or research. What do I need to know and do? Engineering and Computer Science Women faculty Group, University of Massachusetts, Amherst, 9 October, Amherst, MA.
17. **Christofa, E.**, 2013. Sustainable Management of Multimodal Traffic. Landscape Architecture and Regional Planning Zube Seminar Series, University of Massachusetts, 14 February, Amherst, MA.
18. **Christofa, E.**, 2011. Network Traffic Signal Optimization with Transit Priority. Sensys Networks, 6 December, Berkeley, CA.
19. **Christofa, E.**, 2010. Transportation and Technology. General Meeting of Cal Institute of Transportation Engineers (ITE), 30 September, Berkeley, CA.

TEACHING EXPERIENCE

University of Massachusetts Amherst

SPRING 2014 **Transportation (CEE 310)**

SPRING 2016 *Course Instructor*

SPRING 2018 This junior level course introduces students to transportation operations, planning, and design, traditionally with an emphasis on the highway mode, while drawing parallels on other modes. Topics include: vehicle, operator, and roadway characteristics, traffic control, capacity, geometric design, and demand forecasting.

INSTRUCTOR EVALUATION: 4.30/5.00 (SPRING 2014; 2016); 4.70/5.00 (SPRING 2018)

FALL 2013, 2016 **Transportation Sustainability (CEE 597S/697G)**

SPRING 2015 *Course Instructor*

This senior/graduate level course covers concepts of sustainable transportation management strategies and policies. Such topics include: life-cycle assessment for transportation infrastructure systems, vehicle emission estimation models, alternative fuel vehicles, non-motorized modes, and transit preferential treatments.

INSTRUCTOR EVALUATION: 4.83/5.00 (2013); 4.56/5.00 (2015); 4.45/5.00 (2016)

SPRING 2013 **Public Transportation Systems (CEE 410/510)**

SPRING 2017 *Course Instructor*

This undergraduate/graduate level course covers the concepts of designing fixed-route transit systems, fleet and crew management methods and the evaluation and financing of transit projects.

INSTRUCTOR EVALUATION: 4.05/5.00 (2013); 3.92/5.00 (2017)

FALL 2012, 2014 **Traffic Flow Theory and Simulation I (CEE 520/697E)**

Course Instructor

This senior/graduate level course covers the fundamentals of traffic flow theory, macro and microscopic mathematical models, capacity analysis, and queueing.

INSTRUCTOR EVALUATION: 4.95/5.00 (2012); 4.30/5.00 (2014); 4.80/5.00 (2017)

SPRING 2017 **Transportation Doctoral Seminar (CEE 793D)**

Course Co-Instructor

This seminar aims to provide an opportunity for PhD students to practice presenting in front of audiences and providing as well as receiving constructive feedback.

Federal University of Santa Catarina, Florianopolis, Brazil

AUGUST 2014 **Public Transportation Systems (short course)**

Course Instructor

Taught a 5-day course on public transportation systems to faculty and graduate students of the Department of Automation and Systems

University of California, Berkeley

FALL 2010 **Intelligent Transportation Systems (CEE 253)**

Graduate Student Instructor; Prof. Skabardonis

Developed course assignments; Taught lab section; Held office hours

SPRING 2010, 2012 **Highway Traffic Operations (CEE 255)**

Graduate Student Instructor; Prof. Skabardonis

Developed & graded course assignments; Taught discussion section; Held office hours

ADVISING

PhD Students

- SEPT.2016–NOW Aikaterini Deliali
PhD Dissertation Topic: Bicycle Infrastructure for Safer Operations
Awards:
 – UMass Graduate School Fellowship (2016)
- SEPT.2015–NOW Nicholas Fournier
PhD Dissertation Topic: A Population-based Model for Collaborative Multi-modal Optimization
MS Thesis Title: Evaluating Driver Behavior at Bicycle Infrastructure Treatments Using a Driving Simulator
Awards:
 – ENO Fellow (2018)
 – New England University Transportation Center Outstanding Student of the Year (2017)
 – SaferSim University Transportation Center Outstanding Student of the Year (2016)
 – Institute of Transportation Engineers (ITE) Daniel B. Fambro Student Paper Award for paper titled: “A Seasonal Bicycle Demand Model Using A Sinusoidal Function” (2016)
 – Best Student Research Paper, Institute of Transportation Engineers Northeastern District for paper titled: “A Seasonal Bicycle Demand Model Using A Sinusoidal Function” (2016)
 – Dwight D. Eisenhower Graduate Fellowship (2015; 2016; 2017)
 – People’s choice award for poster at the 16th UMass Annual Technical Day and Student Research Symposium (2015)
- MAY 2018 Farnoush Khalighi (now Transportation Modeler at Aimsun, Inc.)
Dissertation Title: Intersection Signal Control and Design for Improved Person Mobility and Air Quality in Urban Multimodal Transportation Systems
Awards:
 – WTS Boston Chapter Claire Barrett Memorial Graduate Scholarship (2016)
 – 2nd position for best poster at the 16th UMass Annual Technical Day and Student Research Symposium (2015)
- SEPT. 2016 Yashar Zeinyali Farid (now Postdoctoral Scholar, University of California, Berkeley)
Dissertation Title: Transit Preferential Treatments at Signalized Intersections: Person-based Evaluation and Real-Time Signal Control
Awards:
 – International Road Federation Road Scholar Fellowship (2013)

MSc Students

- JAN. 2018–NOW Mitchell Page
Thesis Title: Assessing Public Health Impacts of Transportation Projects.
- MAY 2018 Xiang Wang (now at China Overseas Building)
Thesis Topic: Impact of Bus Stops on Signalized Intersection Capacity.
- MAY 2018 Aikaterini Deliali (now PhD student at UMass)
Thesis Title: An Overview of Zero Emission Bus Implementations in the United States.

- DECEMBER 2017 Joshua Wolfgram (now at Sabra, Wang & Associates, Inc.)
Thesis Topic: A Safety and Emission Analysis of Continuous Flow Intersections
Awards:
 – Dwight D. Eisenhower Graduate Fellowship (2016)
- SEPT. 2015 Farnoush Khalighi (now at Aimsun, Inc.)
Thesis Title: A Real-Time Signal Control System to Minimize Emissions at Isolated Intersections
- DECEMBER 2014 Derek Roach (now at Vanasse & Associates, Andover, MA)
Thesis Topic: Towards Sustainable Roundabouts: An Evaluation of Driver Behavior, Emissions, and Safety.
- MAY 2014 Ethan Minott (now at the Massachusetts Department of Transportation)

Undergraduate Students

- SUMMER 2015 Jin Rui Yap (Smith College; co-advised with Eric Gonzales)
 SPRING 2015 Nathan Ziegler (UMass; now at Metro North Railroad, New York, NY)

Committee Member

Undergraduate Students

- SPRING 2018 James McCarthy (Honors Thesis Committee Member, UMass)
 SPRING 2016 Francis Tainter (Honors Thesis Committee Member, UMass; now PhD student at UMass)

MSc Students

- MAY 2018 Akshaey Sabhanayagam (UMass)
 MAY 2018 Francis Tainter (UMass)
 MAY 2018 Adewale Oduwale (UMass)
 MAY 2018 Elizabeth Casola (UMass)
 MAY 2017 Chelsea Bouchard (UMass)
 MAY 2017 Balazs Martai (UMass)
 OCTOBER 2016 Foroogh Hajiseyedjavadi (UMass)
 JULY 2015 Jonathan Freeman (UMass)
 DECEMBER 2014 Christina Dube (UMass)
 AUGUST 2014 Ralph Burgener (École Polytechnique Fédérale de Lausanne)
 MAY 2013 Ian McKinnon (UMass)

PhD Students

- IN PROGRESS Xiaolan Wang (UMass; Computer Science)
 IN PROGRESS Foroogh Hajiseyedjavadi (UMass)
 IN PROGRESS Tao Jiang (UMass)
 JUNE 2017 Mahour Rahimi (UMass)
 MAY 2017 Marie Louis (UMass)
 DECEMBER 2016 Cole Fitzpatrick (UMass)
 MAY 2016 Bart Wolput (Katholieke Universiteit Leuven, Belgium)
 APRIL 2015 Rooholamin Shabihkhani (Rutgers University)
 AUGUST 2014 Elizabeth Ebacher (UMass)

UNIVERSITY & PROFESSIONAL SERVICE

Professional Service

- 2018 Member of the Phasing Subcommittee for New England Institute of Transportation Engineers (ITE) Technical Committee Project "Guidelines for Design & Implementation of Advanced Traffic Signal Functions."
- 2017–2018 Transit Cooperative Research Program (TCRP) Synthesis Project J-07/Topic SA-43: Transit Service Evaluation Standards Panel Member
- 2016–2017 Scientific committee for the 8th International Congress on Transportation Research (ICTR), 28–29 September, 2017, Thessaloniki, Greece
- 2016 Participant at the 4th ITS University Workshop organized by the USDOT and ITS America [invited]
- 2016 FHWA/U.S. DOT Work Zone Model expert panel member
- 2016 Co-organizer of a TRB call for papers on "Multimodal system analysis and modeling"
- 2016 Co-organizer of the 17th UMass Annual Technical Day, 24–25 March, Amherst, MA
- 2016 Presiding officer for session titled: "Signal Control with Priority for Multimodal Transportation Systems" at the Transportation Research Board 95th Annual Meeting
- 2015–2016 Scientific review committee for the 19th EURO Working Group on Transportation, (EWGT), 5–6 September, 2016, Istanbul, Turkey
- 2015–2018 Member of TADD55 Task Force on Arterials and Public Health
- 2013–PRESENT Paper Review Chair for the TRB AHB25 Traffic Signal Systems Committee
- 2015 Presiding officer for session titled: 'Multimodal Traffic Control' at the Transportation Research Board 94th Annual Meeting
- 2014 Chaired session titled: "What's new in University ITS Research?" at the ITS Massachusetts/New England Meeting and Conference
- 2014 Presiding officer for session titled: "Traffic Signals for Multimodal Systems" at the Transportation Research Board 93rd Annual Meeting
- 2014 Participant at the 2nd ITS University Workshop organized by the USDOT and ITS America [invited]
- 2013–PRESENT Member of AHB25 Traffic Signal Systems Committee
- 2013–PRESENT Associate Editor for the International IEEE Annual Conference on Intelligent Transportation Systems

University Service

- 2018 CEE Professor of Practice Search Co-Chair
- 2017–PRESENT CEE Open House Committee
- 2015; 2018 PhD Comprehensive Written Exam Coordinator
- 2014–2015 CEE Structural Engineering and Mechanics Faculty Search Committee
- 2014 CEE Scholarship Committee
- 2013–2015 CEE Faculty Meeting Secretary
- 2012–PRESENT Participant in Departmental & College Open Houses
- 2012–PRESENT Undergraduate Advising

Journal Referee Work

Accident Analysis and Prevention
 Advances in Mechanical Engineering
 Applied Sciences
 ASCE Journal of Infrastructure Systems
 ASCE Journal of Transportation Engineering
 ASCE Journal of Transportation Engineering
 EURO Journal on Transport and Logistics
 IATSS Research
 IEEE Transactions on Intelligent Transportation Systems

IEEE Intelligent Transportation Systems Magazine
IET Intelligent Transport Systems
International Journal of Transportation
Journal of Intelligent Transportation Systems: Technology, Planning, and Operations
Journal of Professional Issues in Engineering Education and Practice
Transport Policy
Transportation Letters
Transportation Research Record
Transportation Science
Transportmetrica B: Transport Dynamics
Transportation Research Part B: Methodological
Transportation Research Part C: Emerging Technologies
Transportation Research Part D: Transport and Environment

Conference Referee Work

ASCE International Conference on Transportation & Development
European Symposium on Quantitative Methods in Transportation Systems
19th EURO Working Group on Transportation
International IEEE Annual Conference on Intelligent Transportation Systems
International Symposium of Enhancing Highway Performance
Road Safety & Simulation International Conference
Transportation Research Board
World Conference on Transport Research (WCTR)

Book Referee Work

Ni., D. 2015. *Traffic Flow Theory: A Unified Perspective*. John Wiley & Sons (2015)
Schiller, P.L., Bruun, E.C., and Kenworthy, J.R. 2015. *Introduction to Sustainable Transport*, 2nd edition, Routledge, Taylor & Francis Group (2015)

Proposals, Problem Statements & Report Referee Work

Luxembourg National Research Fund (FNR) for its CORE Program
Region 2 University Transportation Research Center
National Institute for Transportation and Communities (NITC)
New England Transportation Consortium (NETC)
Southeastern Transportation Research, Innovation, Development and Education Center (STRIDE)
University of California Center on Economic Competitiveness in Transportation (UCCONNECT)

Scholarships/Fellowships Referee Work

German Academic Exchange Service (DAAD) (UMass Selection Committee)
Dwight David Eisenhower Transportation Fellowship

MEMBERSHIPS

Transportation Research Board (Affiliate):

- TADD55 Task Force on Arterials and Public Health, member (2015–2018)
- AHB25 Traffic Signal Systems Committee, member (2013–2017)
- AHB40 Highway Capacity and Quality of Service Committee, friend
- AHB45 Committee on Traffic Flow Theory and Characteristics, friend

American Society of Civil Engineers
Institute of Transportation Engineers
Hellenic Institute of Transportation Engineers

OUTREACH ACTIVITIES

- 2018 Host of two Eureka! Externships, Girls Inc., Holyoke
- 2016 Participant in the UMass Graduate Women in STEM (GWIS) Graduate Student/Faculty Luncheons
- 2016 UMass Summer Transportation Institute Co-organizer
- 2016 New England Future City Competition: Presentation Judge
- 2014 Participant at the Museum of Science Climate Education Symposium, Boston, MA
- 2014 & 2015 New England Future City Competition: Judge for the Best Transportation System
- 2013 & 2014 Lecturer at the Summer Engineering Institute (UMass Amherst)