

## Pruthvi Manjunatha

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### Research Areas

Traffic Operations, Autonomous and Connected Vehicle Technologies, Traffic Microsimulation, Signal Control, Intelligent Transportation Systems, Autonomous Transit, Human Factors in Traffic Engineering, Driving Simulation.

### Education

Doctor of Philosophy, Civil Engineering, University of Florida, Gainesville, Florida, August 2018.

Dissertation: Identification, Measurement and Incorporation of Human Factors in Traffic Microsimulation Using Driving Simulator Observations

Master of Technology, Transportation Systems Engineering, Indian Institute of technology, Bombay, India June 2012. Thesis (At Karlsruhe Institute of Technology, Germany): A Methodology for Calibration of Traffic Micro Simulators in Mixed Traffic Condition

Bachelor of Engineering, Civil Engineering, Visvesvaraya Technological University, Mysore, India, May 2010. Thesis: Stabilization of Coal Ashes for Use in Various Geotechnical Engineering Applications

### Notable Awards and Scholarships

La Salle Summer Academy Visiting Scholar – Wrote the winning proposal and taught summer course on Sustainable Transportation Systems at La Salle University, Colombia (2018)

Runner-up, ITE International Annual Traffic Bowl Competition, Seattle (2014)

German Academic Exchange (DAAD) Scholar – Research on advanced traffic simulation at Karlsruhe Institute of Technology, Germany (2011–2012)

All-India Ranking of 251 (out of over 100,000 students) in the National Graduate Exam for Civil Engineering (2011).

Karnataka State Council for Science and Technology Research Scholar (2009-2010)

### Current Employment

#### Research Assistant Professor and

#### I-STREET Emerging Transportation Technologies Program Manager,

University of Florida Transportation Institute (UFTI) (Since July 2019):

- Coordination with the City of Gainesville and Florida Department of Transportation and its seven districts in the planning and implementation of emerging technologies on real world streets and highways.
- Coordination with legislatively appointed advisory board and policy makers ([FL Senate Bill 64 and House Bill 425, 2023](#)).

- Collaborating with industry partners and stakeholders (80+ connections, 10+ testing partners) to coordinate software, hardware and application efforts and ensure consistency and interoperability.
- Managing the [industry partnership program](#) and coordinating with the corporate board.
- Collaborating with communications team and media to disseminate cutting edge research and scientific information to the public in an effective manner.
- Research on emerging transportation technologies from three perspectives:
  - Vehicle- Development and testing of Connected and Autonomous Vehicle (CAV) technologies with [AVIAN research group](#). Research on the design of effective in-vehicle devices and Advanced Driver Assistance Systems (ADAS). Collaboration with FHWA's program for Cooperative Driving Automation ([CDA](#)).
  - Infrastructure –Signal optimization for traffic mix with conventional and connected vehicles, evaluating smart sensors, pedestrian and bicyclist safety applications, developing simulation frameworks for analyzing the impact of CAVs.
  - Road user – Collaboration with [human factors research group](#) at UFTI, using driving simulators to study and model driver behavior, research on the effect of smart devices on drivers, pedestrians, and bicyclists' safety, studying perception and use of autonomous shuttles and the impact of user interface designs on road users.
- Teaching the undergraduate course on introduction to transportation engineering and the graduate course on traffic simulation and control. Developing course materials on Connected and Autonomous Vehicles and their incorporation in transportation models and analyses for both university curriculum and professional development.

#### Current projects:

- SS4A- Integrating Road Safety Audits to Enhance Gainesville's Vision Zero Action Plan
- Research on Artificial-Intelligence for Data Integration with State Highways (RADISH)
- Evaluation of Gainesville Pedestrian-Bicyclists' Connected Vehicle Pilot Phase 2
- Evaluation of Interstate 4 (I-4) Florida's Regional Advanced Mobility Elements- Phase 2

#### Completed projects:

- Evaluation of Advanced Vehicle and Communication Technologies using Microsimulation Phase 2
- Support for the I-STREET (Implementing Solutions from Transportation Research Evaluation of Emerging Technologies) Living Lab
- Scan and Review of Autonomous Shuttle Operations and Other Personal Transportation Options Affecting Autonomous Transit Viability
- Evaluation of Cooperative Automation Research Mobility Applications (CARMA) for I-

#### STREET Living Lab Implementation

- Transportation Mobility Assessment and Recommendations for Smart City Planning
- Develop, Refine, and Validate a Survey to assess Adult's Perspectives of Autonomous Ride-Sharing Services
- Extended Development and Testing of Optimized Signal Control with CAVs
- Data Analytics and Evaluation of the Gainesville Trapezium Connected Vehicle Signal Phase and Timing (SPaT) Deployment Project
- Evaluation of Advanced Vehicle and Communication Technologies using Microsimulation Phase 1
- Evaluation of Interstate 4 (I-4) Florida's Regional Advanced Mobility Elements Phase 1
- Evaluation of Gainesville Pedestrian-Bicyclists' Connected Vehicle Pilot Phase 1

#### Previous Employment

##### **Post-Doctoral Associate**, UFTI (October 2018 – July 2019)

- Evaluation of Public Acceptance of Autonomous Technology in Gainesville, FL
- Evaluation of Arterial Corridor Improvements and Traffic Management Plans in Florida
- TTE 6259 Urban Streets Simulation and Control (Instructor)

##### **Graduate Assistant**, University of Florida (August 2013-August 2018)

- Evaluation of Adaptive Signal Controlled Corridors in Florida (Lead Researcher)
- Development of Support Systems and Instructional Modules for Driving Simulator at UF
- TTE 4004c Transportation Engineering (Instructor)
- TTE 6267 Traffic Flow theory (Teaching Assistant)

##### **Graduate Transport Planner**, Atkins, India (July 2012 – July 2013)

- Traffic Impact Assessment, Microsimulation Modeling, Signal Optimization.
- Working experience with VISSIM, LINSIG, ARCADY and PICADY
- Preliminary knowledge of demand modeling with EMME and SATURN
- Working experience with English and Welsh Traffic codes and manuals

##### **Teaching Assistant**, Indian Institute of Technology (July 2010 – July 2011)

- CE 434: Traffic Analysis and Design (Lab Instructor)
- CE 740: Traffic Engineering (Teaching Assistant)

#### Research Grants

- Integrating Road Safety Audits to Enhance Gainesville's Vision Zero Action Plan  
Grant number: DOT-SS4A-FY24-01  
Source of Funding: United States Department of Transportation  
Role: Co-PI  
Conducting public awareness and outreach campaigns regarding traffic safety in school zones.  
Total Amount Awarded: \$791,232  
Dates Conducted: August 2024 to July 2026
- Interstate 4 (I-4) Florida's Regional Advanced Mobility Elements Stakeholder Coordination for

Phase II: Comprehensive Assessment of "Before" and "After" Conditions

Grant number: BED31-977-018

Source of Funding: Florida Department of Transportation

Role: Co-PI

Coordinating with four partner universities (UF, USF, UCF and Florida Poly) to provide the comprehensive evaluation of the connected vehicle infrastructure investments.

Total Amount Awarded: \$527,682

Dates Conducted: June 2023 to June 2028

- Evaluation of Gainesville Pedestrian-Bicyclists Connected Vehicle Pilot  
Grant number: BED31-977-023  
Source of Funding: Florida Department of Transportation  
Role: Co-PI  
Leading the design and development of data collection, focus groups and survey to assess the effectiveness of the deployed system to improve the safety of vulnerable road users.  
Total Amount Awarded: \$308,385  
Dates Conducted: June 2023 to June 2025
- Scan and Review of Autonomous Shuttle Operations and Other Personal Transportation Options Affecting Autonomous Transit Viability  
Grant number: BED31-977-022  
Source of Funding: Florida Department of Transportation  
Role: Co-PI  
Seeking out and interviewing the experts in the field of autonomous mobility to provide a comprehensive picture of state of the art to the Florida DOT for further planning and investments.  
Total Amount Awarded: \$171,600  
Dates Conducted: June 2023 to May 2024
- Research on Artificial-Intelligence for Data Integration with State Highways (RADISH)  
Grant number: BED31-977-008  
Source of Funding: Florida Department of Transportation  
Role: Lead Researcher  
Developing a system to utilize state highway data to improve traffic conditions on ramp facilities.  
Total Amount Awarded: \$321,020  
Dates Conducted: June 2022 to October 2024
- Support for the I-STREET Living Lab  
Grant number: BED31-977-006  
Source of Funding: Florida Department of Transportation  
Role: Co-PI  
Developing a strategic plan that addresses research, industry, education and public agencies'

need in the emerging transportation technologies in the state of Florida.

Total Amount Awarded: \$232,593

Dates Conducted: June 2022 to November 2023

- Before-After Study of Pedestrian-Bicyclists Gainesville Connected Vehicle Pilot  
Grant number: BDV31-977-120  
Source of Funding: Florida Department of Transportation  
Role: Co-PI  
Leading the design and development of data collection, focus groups and survey to assess the effectiveness of the deployed system to improve the safety of vulnerable road users.  
Total Amount Awarded: \$412,989  
Dates Conducted: June 2019 to October 2023
- Before Remote Sensing and Prediction of Environmental Noise to Facilitate Addressing the Social and Health Issues of Noise - Pilot Study: Schools and Hospitals  
Grant number: NSF 2125427  
Source of Funding: National Science Foundation  
Role: Lead Researcher  
Coordinating with Architecture faculty to aid research on traffic acoustics and their effect on populations near facilities such as hospitals.  
Total Amount Awarded: \$149,437  
Dates Conducted: October 2021 to September 2023
- Evaluation of Advanced Vehicle and Communication Technologies through Traffic Microsimulation (Phase 2)  
Grant number: STRIDE Project I5  
Source of Funding: STRIDE UTC USDOT  
Role: PI  
Leading a consortium of universities to enhance and existing simulation framework and to develop CAV educational materials.  
Total Amount Awarded: \$500,292  
Dates Conducted: August 2021 to December 2023  
Report: <https://rosap.ntl.bts.gov/view/dot/57280>
- Evaluation of Interstate 4 (I-4) Florida's Regional Advanced Mobility Elements  
Grant number: BDV31-977-139  
Source of Funding: Florida Department of Transportation  
Role: Co-PI  
Coordinating with four partner universities (UF, USF, UCF and Florida Poly) to provide the comprehensive evaluation of the connected vehicle infrastructure investments.  
Total Amount Awarded: \$314,334  
Dates Conducted: March 2021 to December 2022

- Evaluation of CARMA for I-STREET implementation  
 Grant number: BDV31-977-145  
 Source of Funding: Florida Department of Transportation  
 Role: PI  
 Lead a stakeholder alliance of UF, FHWA and FDOT to evaluate the CARMA CDA ecosystem and developing use cases for practical implementation.  
 Total Amount Awarded: \$94,948  
 Dates Conducted: January 2022 to November 2022
- Public Acceptance of Autonomous Vehicle (AV) Technology  
 Grant number:  
 Source of Funding: University of Florida  
 Role: Lead Researcher  
 Lead data collection and survey efforts to assess the public perception of the autonomous shuttle deployment in Gainesville, FL.  
 Total Amount Awarded: \$49,918  
 Dates Conducted: May 2017 to September 2022
- Transportation Mobility Assessment and Recommendations  
 Grant number: BDV31-977-115  
 Source of Funding: Florida Department of Transportation  
 Role: Co-PI  
 Lead focus groups and reached out to community leaders to conduct Community Based Participatory Research (CBRP). Assessed mobility needs in two diverse communities with contrasting socio-economic characteristics.  
 Total Amount Awarded: \$468,877  
 Dates Conducted: June 2019 to November 2021  
 Report: <https://rosap.ntl.bts.gov/view/dot/63304>
- Data Analytics and Evaluation of the Gainesville Trapezium Connected Vehicle Signal Phase and Timing (SPaT) Deployment Project  
 Grant number: BDV31-977-117  
 Source of Funding: Florida Department of Transportation  
 Role: Lead Researcher  
 Coordinated with PI from computer science background to develop a data pipe that ingests data from ATSPM systems and generates level of service information for network of intersections. Used this automated system to evaluated the impact of CV pilot deployment.  
 Total Amount Awarded: \$249,655  
 Dates Conducted: June 2019 to November 2021  
 Report: <https://rosap.ntl.bts.gov/view/dot/62708>
- Extended Development and Testing of Optimized Signal Control with CAVs  
 Grant number: BDV31-977-109

Source of Funding: Florida Department of Transportation

Role: Co-PI

Lead the effort to include pedestrian detection and enhance an existing two-level optimization system that provides ideal trajectories as well as signal plans for an intersection system.

Total Amount Awarded: \$434,010

Dates Conducted: March 2019 to July 2021

Report: <https://rosap.ntl.bts.gov/view/dot/62604>

- Develop, Refine, and Validate a Survey to Assess Adult's Perspectives of Autonomous Ride-Sharing Services for Human Factors and Traffic Operational Observations

Grant number: BDV31-977-128

Source of Funding: Florida Department of Transportation

Role: Co-PI

Lead development of a survey to assess the public perception of the autonomous technologies. Assessed public's on-road reaction to autonomous shuttle deployment in Lake Nona, FL

Total Amount Awarded: \$203,948

Dates Conducted: November 2019 to June 2021

Report: <https://rosap.ntl.bts.gov/view/dot/61849>

- Evaluation of Advanced Vehicle and Communication Technologies through Traffic Microsimulation (Phase 1)

Grant number: STRIDE Project D (2018-004)

Source of Funding: STRIDE UTC USDOT

Role: PI

Lead a consortium of universities to develop a simulation framework that models CAVs and their effects including emissions.

Dates Conducted: April 2018 to February 2021

Report: <https://rosap.ntl.bts.gov/view/dot/57280>

- Development of Support Systems, Instructional Modules, and a Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House

Grant number: STRIDE Project H (2016-006)

Source of Funding: US Department of Transportation

Role: Lead Researcher

Contributed to development of an instructional module to use driving simulators for traffic safety and engineering research.

Total Amount Awarded: \$49,992

Dates Conducted: May 2017 to September 2020

Report: <https://rosap.ntl.bts.gov/view/dot/37166>

- Evaluation of Arterial Corridor Improvements and Traffic Management Plans in Florida

Grant number: BDV-32-977-44

Source of Funding: Florida Department of Transportation

Role: Lead Researcher

Lead the data collection efforts and evaluated the arterial corridors in Jacksonville, FL for mobility and safety.

Total Amount Awarded: \$137,964

Dates Conducted: June 2015 to September 2019

Report: <https://rosap.ntl.bts.gov/view/dot/50017>

- Before and After-Implementation Studies of Advanced Signal Control Technologies in Florida

Grant number: BDV-32-977-05

Source of Funding: Florida Department of Transportation

Role: Lead Researcher

Designed and lead the data collection efforts and evaluation of “Adaptive Traffic Control” technologies in eight different corridors across the state of Florida. Coordinated with various TMCs and interviewed staff at public agencies to understand the lessons learnt from pilot deployments. Conducted a cost-benefit analysis and provided a set of recommendations for implementation of such technologies.

Total Amount Awarded: \$840,133

Dates Conducted: May 2014 to September 2019

Report: <https://rosap.ntl.bts.gov/view/dot/65581>

## **Publications**

Salehian, M., Zorbas, V., Manjunatha, P., Yan, X., Elefteriadou, L., Gladwin, K. "Are Autonomous Shuttles Ready to Provide Regular Transit Service?" TRBAM-25-01720, Transportation Research Board Annual Meeting. Washington D.C., January 2025.

Karamouzis, O., Kibet, L., Manjunatha, P., & Elefteriadou, L. "State-of-the-Art Vehicle-to-Pedestrian(V2P) Systems Technology: Survey and Recommendations for Effective Deployments". IEEE Transactions on Intelligent Transportation Systems., September 2024 (Under review)

Jeghers, M., Classen, S., Manjunatha, P., & Elefteriadou, L. "An examination of two diverse communities: Residents' transportation behaviors, challenges, and opportunities". OTJR: Occupation, Participation, and Health., March 2023

<https://doi.org/10.1177/15394492231167780>

Carvalho, L., Guerra, A., Wang, X., Manjunatha, P., and Elefteriadou, L. "Simulation Platform for Testing and Evaluation of CAV Trajectory Optimization and Signal Control Algorithm Integrated with Commercial Traffic Simulator" Winter Simulation Conference, INFORMS, Singapore. December 2022.

Manjunatha, P., Roy, S., Elefteriadou, L., Guin, A., Hunter, M. "Evaluation of the Operational Effects of Autonomous and Connected Vehicles through Microsimulation" Journal of Transportation



Research Record., February 2022.

<https://doi.org/10.1177/03611981211068460>

Manjunatha, P., Mason, J., Classen, S., Elefteriadou, L., Huang, E. "Public Perception and Lessons Learned from Autonomous Shuttle Demonstration Studies". Transportation Research Board Annual Meeting. Washington D.C., January 2022

Mohebbi. M., Patni. S., Elefteriadou. L., Srinivasan. S., Manjunatha. P. "Transportation Mobility Assessment and Recommendations for Smart City Planning". Transportation Research Board Annual Meeting. Washington D.C., January 2022

Manjunatha, P., Banerjee, T., Sengupta, R., Dong, S., Aghdashi, B. Elefteriadou, L and Ranka, S. "An automated system for operational evaluation of signalized intersections: A case study on the impact of COVID-19 pandemic on traffic patterns". PANAM Conference, Lima, Peru 2021.

Jeghers, M., Classen, S., Manjunatha, P., & Elefteriadou, L.. "An Examination of Two Diverse Communities: Residents' Transportation Behaviors, Challenges, and Opportunities". Manuscript in consideration at the Journal of Transport and Health September 2021.

Manjunatha, P., Duan, X., Ankomah, A., Elefteriadou, L., Srinivasan, S., Ponnaluri, R. "Evaluation of Adaptive Signal Control Technologies in Florida" In: Proceedings of the 98th Transportation Research Board Annual Meeting. Washington D.C., 2020

Manjunatha, P., Kummetha, V., Kondyli, A., Elefteriadou, L. "Validating the Task-Capability Extension to the Intelligent Driver Model (IDM) Using Driving Simulator Data" In: Proceedings of the 98th Transportation Research Board Annual Meeting. Washington D.C., 2019

Manjunatha, P., Elefteriadou, L. "A Framework For Incorporating Human Factors In Microsimulation Using Driving Simulator Observations" In: Proceedings of the 98th Transportation Research Board Annual Meeting. Washington D.C., 2019

Manjunatha, P., Elefteriadou, L. "Analysis of Wiedemann Car Following Thresholds Using Driving Simulator Observations", In: Proceedings of the 97th Transportation Research Board Annual Meeting. Washington D.C., 2018

Manjunatha, P., Kondyli, A, Elefteriadou, L. "How Has Driver Behavior Been Considered in Traffic Microsimulation and How Can We Use Cognitive Sciences and Psychology Studies to Enhance Them?", In: Proceedings of the 96th Transportation Research Board Annual Meeting. Washington D.C., 2017

Zheng, Y., Manjunatha, P., Elefteriadou, L, Ponnaluri, R. "Empirical Assessment of Adaptive Signal Control Technologies in Florida", In: Proceedings of the 96th Transportation Research Board Annual Meeting. Washington D.C., 2017

Manjunatha, P., Mathew, T.V., Vortisch, P. "Methodology for the Calibration of VISSIM in Mixed Traffic", In: Proceedings of the 92nd Transportation Research Board Annual Meeting. D.C., 2013

## Research Reports

Elefteriadou, L., Manjunatha, P. et al. "Scan and Review of Autonomous Shuttle Operation and Other Personal Transportation Options Affecting Autonomous Transit Viability" Project BED31-977-22, FDOT, 2024.

Elefteriadou, L., Manjunatha, P. et al. "Support for the I-STREET (Implementing Solutions from Transportation Research and Evaluation of Emerging Technologies) Testbed" Project BED31-977-06, FDOT, 2024.

Manjunatha, P et al. "Evaluation of Advanced Vehicle and Communication Technologies through Traffic Microsimulation" STRID UTC Project I-5, USDOT, 2023. <https://stride.ce.ufl.edu/stride-project-i5/>

Elefteriadou, L., Manjunatha, P. et al. "Interstate-4 (I-4) Florida's Regional Advanced Mobility Elements (FRAME) Project" Project BDV31-977-139, FDOT, 2023.

Manjunatha, P. Agarwal, N. et al. "Evaluation of CARMA for I-STREET Testbed Implementation", Project BDV32-977-115, FDOT, 2022.

Elefteriadou, L., Manjunatha, P. et al. "Transportation Mobility Assessment and Recommendations for Smart City Planning" Project BDV32-977-115, FDOT, 2021. <https://rosap.ntl.bts.gov/view/dot/63304>

Banerjee, T., Manjunatha, P. et al. "Data Analytics and Evaluation of the Gainesville Trapezium Connected Vehicle Signal Phasing and Timing (SPaT) Deployment Project" Project BDV31-977-117, FDOT, 2021. <https://rosap.ntl.bts.gov/view/dot/62708>

Classen, S., Mason, J., Manjunatha, P. et al. "Develop, Refine, and Validate A Survey to Assess Adult's Perspectives of Autonomous Ride-Sharing Services for Human Factors and Traffic Operational Observations" Project BDV31-977-128, FDOT, 2021. <https://rosap.ntl.bts.gov/view/dot/61849>

Manjunatha, P., Elefteriadou, P., et al. "Evaluation of Advanced Vehicle and Communication Technologies through Traffic Microsimulation", STRIDE Project D, 2021. <https://rosap.ntl.bts.gov/view/dot/57280>

Elefteriadou, L., Manjunatha, P. et al. "Before and After-Implementation Studies of Advanced Signal Control Technologies in Florida", Project BDV32-977-05, FDOT, 2019. <https://rosap.ntl.bts.gov/view/dot/65581>

Elefteriadou, L., Manjunatha, P. et al. "Evaluation of Arterial Corridor Improvements and Traffic Management Plans in Florida", Project BDV31-977-44, FDOT, 2019. <https://rosap.ntl.bts.gov/view/dot/50017>

Elefteriadou, L., Manjunatha, P., Srinivasan, S., Agarwal, N., Semensky, S., "Public Acceptance of Autonomous Vehicle (AV) Technology", UFTI, 2019.

Srinivasan, S., Rogers, J., Manjunatha, P., Maldonado, P., & Yarney, A. "Development of Support

Systems, Instructional Modules, and a Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House”, STRIDE, 2017. <https://rosap.ntl.bts.gov/view/dot/37166>

### **Invited Talks and Presentations**

- Presenter/Panelist, “Pedestrian and Bicyclist’s Connected Vehicle (CV) Pilot in Gainesville, FL”, LECTERN Session, ASCE International Conference on Transportation and Development, Atlanta, June 2024.
- Presenter/Panelist, “Automated Vehicle Testbeds and Weather Applications”, LECTERN Session 3023, Transportation Research Board (TRB) Annual Meeting, January 2024.
- Presenter, Emerging Technologies in Transportation: Challenges and Lessons Learnt from the I-STREET living lab/testbed in Florida, Indian Institute of Sciences (IISc), December 2023.
- Guest Lecturer, “CGN6905-Fundamentals of Transportation Profession”, University of Florida, November 2023.
- Presenter, “Workshop on Development of CAV Education Materials for Graduate and Undergraduate Civil Engineering Students”, Auburn, AL, September 2023.
- Co-host, “Florida Plugfest” – A comprehensive CV2X technology testing event at Suntrax test facilities, Auburndale, FL, May 2023.
- Presenter, “Lessons Learnt from Emerging Transportation Technology deployments at I-STREET Living Lab”, First Coast ITE District, North Florida Transportation Planning Organization (NFTPO), Jacksonville, FL, February 2023.
- Guest Lecturer, “CGN4905- Careers in Transportation”, University of Florida, October 2022.
- Presenter, “I-STREET Living Lab and Autonomous Shuttles”, TRB ARTS Conference, Anaheim, CA, July 2022.
- Panelist, Florida ITE student leadership summit, Tallahassee, FL, February 2022
- Presiding Committee Member for ACH 50, LECTERN Session 1393- Field and In-the loop studies of Driver Behaviors, TRB Annual Conference, Washington D.C., January 2022
- Presenter, “I-STREET: Implementing Solutions from Transportation Research and Evaluation of Emerging Technologies”, webinar at NCCAV Center, North Carolina. November 2021
- Panelist, Research to Practice Transit Symposium, Florida. October 2021.
- Presenter, “Findings from Autonomous Shuttle Demonstrations and Challenges Ahead”, webinar at STRIDE Center, US Department of Transportation. October 2021.
- Organizer/Host at the CoMotion Miami Mobility Challenge, powered by I-STREET. (The main event for this conference was headlined by USDOT Secretary Pete Buttigieg) June 2021.
- Presenter, “Evaluation of the Operational Effects of Autonomous and Connected Vehicles

through Microsimulation”, Transportation Research Board CAV Workshop November 2020.

- Presenter, “Autonomous and Connected Vehicle Operational Performance Evaluation Using PTV-VISSIM” PTV User Group Meeting November 2020.
- Presenter, “I-STREET: Implementing Solutions from Transportation Research and Evaluation of Emerging Technologies”, webinar at STRIDE Center, US Department of Transportation. September 2020
- Presenter, “Evaluation of the Operational Effects of Connected and Autonomous Vehicles (CAVs) through Microsimulation”, webinar at STRIDE Center, US Department of Transportation. September 2020
- Panelist, “STRIDE Stakeholder Engagement Webinar”, webinar at STRIDE Center, US Department of Transportation. August 2020
- Panelist, “Advancing Safety and Mobility Using Emerging Technologies”, Florida Automated Vehicles (FAV) Summit, Miami. (The main event for this conference was headlined by FL state senator Jeff Brandes) November 2019.

#### **Professional and Educational Activities**

- Member, NCHRP Panel, Human Factors Research in Transportation (2023-24)
- Member, FHWA Cooperative Driving Automation (CDA) Road User Technical Working Group (Since 2023)
- Member/Reviewer, ACH 50 (Previously AND30)- Simulation and Measurement of Vehicle and Operator Performance, Transportation Research Board (Since 2019)
- Review Editor, Journal- “Frontiers in Future Transportation” (Since 2022)
- Advisor, IEEE-ITSS Student chapter at UF (Since 2022)
- Reviewer, ACH30-Standing Committee on Human Factors of Vehicles (Since 2022)
- Mentor, University of Florida Cricket Team (Since 2019)
- Mentor, [College Reach-Out Program \(CROP\)](#), Florida Department of Education (Since 2021)
- Mentor, Summer Undergraduate Research at Florida (SURF) Program (2019-2022)
- Member/Reviewer, Simulation Subcommittee, Transportation Research Board (Since 2016)
- Member, World Conference on Transportation Research Society (WCTRS) (Since 2019)
- Reviewer, ADD30 - Transportation and Land Development, Transportation Research Board
- Reviewer, National Institute for Transportation & Communities (NITC) (Since 2020)
- Reviewer, The Pacific Northwest Transportation Consortium, UTC for Region 10 (Since 2020)
- Institute of Transportation Engineers’ UF Student Chapter. Treasurer (2014), Secretary (2015)

## Media Coverage

- Omniair Consortium Media- Omniair Florida Plugfest was a huge success (May, 2023), available at <https://omniair.org/omniair-florida-plugfest-success/>
- ITS International News- Invitation to join the I-Street Living Lab (April, 2023), available at <https://www.itsinternational.com/daily-news/its-america-2023/invitation-join-i-street-living-lab>
- The American Association of State Highway and Transportation Officials (AASHTO) Journal Website - Florida DOT Sponsoring Pedestrian Research Project (November 2022), available at [https://aashtojournal.org/2022/09/02/florida-dot\\_sponsoring-pedestrian-safety-research-project/](https://aashtojournal.org/2022/09/02/florida-dot_sponsoring-pedestrian-safety-research-project/)
- Traffic Technology Today (tti News) - Florida DOT Collaborating with University on Next-Gen Pedestrian Detection (September 2022), available at [https://www.traffictechnologytoday.com/news/vulnerable-road-users/florida-dot\\_collaborating-with-university-on-next-gen-pedestrian-detection.html](https://www.traffictechnologytoday.com/news/vulnerable-road-users/florida-dot_collaborating-with-university-on-next-gen-pedestrian-detection.html)
- WCJB-TV News - UF Researchers Install Sensors to Study Pedestrian Safety Tech (August 2022), available at [https://www.wcjb.com/2022/08/31/uf-researchers-install\\_sensors-study-pedestrian-safety-tech/](https://www.wcjb.com/2022/08/31/uf-researchers-install_sensors-study-pedestrian-safety-tech/)
- CBS4 you - Pedestrian Deaths Could Be Prevented with new Technology Being Tested at UF (August 2022), available at [https://mycbs4.com/news/local/pedestrian-deaths\\_could-be-prevented-with-new-technology-being-tested-at-uf](https://mycbs4.com/news/local/pedestrian-deaths_could-be-prevented-with-new-technology-being-tested-at-uf)
- NPR-WUFT News - Gainesville's Autonomous Shuttle Incorporates New Technology (April 2022), available at [https://www.wuft.org/news/2022/04/14/gainesvilles\\_autonomous-shuttle-incorporates-new-technology/](https://www.wuft.org/news/2022/04/14/gainesvilles_autonomous-shuttle-incorporates-new-technology/)
- The Gainesville Sun - Lessons Learned from Gainesville's Experiment with Driverless Buses (March 2022).
- CBS4 you News in You Tube - UF Traffic Project Uses Technology to Improve Safety, Gainesville's Traffic Tuesday's Segment on the Gainesville Trapezium Project. (May 2021) <https://www.youtube.com/watch?v=cox5j3x4Zdk>
- Civil Conversations Podcast - Episode 1: Transportation with Dr. Pruthvi Manjunatha (August 2018) <https://www.listennotes.com/podcasts/civil-conversations/episode-1-transportation-zGQ3Jm0qocM/>

## Students Mentored

- Mohammedreza Mirzaei [PhD, 2027]
- Mohaddese Salehian Khaled Abady [PhD, 2027]
- Victoria Zorbas [PhD, 2026]
- Katigehalli Gurushantamma [MS, 2025]
- Bryce Grame [PhD, 2025]

- Renan Favero [PhD, 2025]
- Myra Monreal [PhD, 2025]
- Orestis Karamouzis [MS, 2024]
- Aditi Dubey [BS, 2024]
- Luan Carvalho [PhD, 2023]
- Agustin Guerra [PhD, 2023]
- Rahul Sengupta [PhD, 2023]
- Leonida Kibet [MS, 2023]
- Mary Jeghers [PhD, 2022]
- Erik Huang [BS, 2022]
- John Lin [BS, 2022]
- Alexander Foote [BS, 2022]
- Sophia Semensky [BS, 2021]
- Savanna Stockton [BS, 2021]
- Xi Duan [MS, 2020]
- Mohammed Saifuddin [MS, 2020]
- Zachary Jerome [BS, 2020]
- Hope Sotolongo-Miranda [BS, 2020]
- Matthew Knight [BS, 2019]
- Matthew Dean [BS, 2019]
- Tyler Hartley [BS, 2019]