Curriculum Vitae

Anuj K. Pradhan
Assistant Professor. Mechanical and Industrial Engineering
University of Massachusetts Amherst

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I. PERSONAL

A. Education

- Postdoctoral Training:
  - IRTA Fellow, Prevention Research, NICHD, National Institutes of Health (2013)
  - Focus: Prevention Research
- Ph.D. in Industrial Engineering & Operations Research
  - University of Massachusetts Amherst, (2009)
  - Focus: Human Factors
- MS in Industrial Engineering & Operations Research
  - University of Massachusetts Amherst (2004)
- B.E, in Mechanical Engineering
  - Punjab Engineering College, Chandigarh, India (1998)

B. Academic and Professional Appointments

2019 – Present	**Assistant Professor**, Department of Mechanical and Industrial Engineering, University of Massachusetts Amherst
2013 - 2018	**Assistant Research Scientist**, University of Michigan Transportation Research Institute
2018	**Adjunct Professor**, University of Michigan Law School
2009-2013	**Post-doctoral Visiting Fellow**, Prevention Research Branch. Division of Epidemiology, Statistics, and Prevention Research. National Institute of Child Health and Human Development.
2001 – 2009	Lab Manager & Research Assistant, Human Performance Laboratory, University of Massachusetts Amherst
1999-2000	Junior Manager, Aktech Consultancy Services, Phuentsholing, Bhutan

C. Awards & Recognition

- Association for the Advancement of Automotive Medicine Elaine Wodzin Young Achiever Award
- Liberty Mutual Award at Institute of Ergonomics and Human Factors Annual Conference, Staffordshire, UK, 2010.
- MIE "Advisor of the Year" – Student-award – 2022
- Voted to give "Last Lecture" to graduating class of 2022.
- Graduate Student: Ganesh Pai Mangalore
  - Link Foundation for Simulation Fellowship 2021-22
- Graduate Student: Apoorva Hungund
  - AAAM H. Clay Gabler Scholar's Award Program, 2021-22

- SAFER-SIM Excellence Award, 2023
- Undergraduate Researcher: Jaydeep Radadiya, Industrial Engineering (2019-2021)
  - SaferSim UTC Excellence in Research Undergraduate Award (2019)
  - Rising Researcher Award
- Undergraduate Researcher: Sarah Widrow, Industrial Engineering (2019 – 2022)
  - SaferSim UTC Excellence in Research Undergraduate Award (2020)
  - WTS/RI Undergraduate Scholarship (2021)
  - WTS Sharon D. Banks Memorial/Jacquelyn R. Smith Memorial Scholarship (2022)
  - MIE "Student of the Year" Award 2022
- Editorial Boards
  - Journal of Law & Mobility
  - Frontiers in Neuroergonomics: Social Neuroergonomics
  - Transportation Research Record
  - Accident Analysis & Prevention: Special Issue on Distraction & Emerging Issues

II. RESEARCH PUBLICATIONS

h-index = 38 (https://scholar.google.com/citations?user=VIJFmmAAAAAJ)

A - Peer-Reviewed Journal Articles

***** *Denotes Student Authors advised by me*

IN PREPARATION

1. Sheykhfard, A., **Pradhan**, A.K., Das, S. (2024, In preparation). Adapting successful models from developed countries to enhance pedestrian safety on urban roads in developing countries. *Journal of Safety Research*

UNDER REVIEW/REVISION

2. *Pai, G. & **Pradhan**, A.K., (2024, under review). Drivers' Hazard Avoidance Behaviors when using ADAS: An Observational Simulator Study. *Safety*
3. *Paari, M., Wang, M., *Hungund, A.P., *Pamarthi, J., Roberts, S.C., **Pradhan**, A.K., (2024, under review). Investigating training program interactions that predict hazard anticipation skills for novice teen drivers. *Journal of Traffic and Transportation Engineering*

PUBLISHED

4. **Pradhan**, A.K., Lin, B.T.W., Wege, C., Babel, F. (2024, In Press) Effects of Behavior-based Driver Feedback Systems on Speeding Violations of Commercial Long-Haul Truck Drivers. *Safety*
5. *Hungund, A., *Pai, G., **Pradhan**, A.K., (2024, In Press) Does Training Improve Users' Mental Models About Adaptive Cruise Control? *Traffic Safety Research*
6. *Pai. G., Zhang, F., *Hungund, A. P., *Pamarthi, J., Roberts, S. C., Horrey, W. J., & **Pradhan**, A. K. (2023). Frequency and Quality of Exposure to Adaptive Cruise Control and Impact on Trust, Workload, and Mental Models. *Accident Analysis and Prevention.*
7. Zhang, Q., Esterwood, C., **Pradhan**, A. K., Tilbury, D., Yang, X. J., & Robert, L. P. (2023). The Impact of Modality, Technology Suspicion, and NDRT Engagement on the Effectiveness of AV Explanations. *IEEE Access, vol. 11, pp. 81981-81994, 2023, doi: 10.1109/ACCESS.2023.3302261.*
8. *Hungund, A.P. & **Pradhan**, A.K., (2023). Impact of Non-Driving Related Tasks while operating Automated Driving Systems (ADS): A Systematic Review, *Accident Analysis and Prevention*

9. **Pradhan**, A.K., *Hungund, A., *Pai, G., & *Pamarthi, J. (2023). How does training influence use and understanding of advanced vehicle technologies: a simulator evaluation of driver behavior and mental models. *Traffic Safety Research, 3, 000024. https://doi.org/10.55329/udqk4583*
10. **Pradhan**, A.K., Pai*, G., Jeong, H., Bao, S., (2022). Simulator Evaluation of an Intersection Maneuver Assistance System with Connected and Automated Vehicle Technologies, *Ergonomics*
11. *Hungund, A.P., *Pai, G., & **Pradhan**, A.K., (2021). A Systematic Review of Research on Driver Distraction in the Context of Advanced Driver Assistance Systems, *Transportation Research Record*
12. Xu, Y., Bao, S., **Pradhan**, A., & Sayer, J. (2021). Modeling Drivers' Reaction When Being Tailgated: A Random Forests Method, *Journal of Safety Research*
13. **Pradhan**, A. K., *Pai, G., *Radadiya, J., Knodler, M. A., Fitzpatrick, C., & Horrey, W. J. (2020). Proposed Framework for Identifying and Predicting Operator Errors When using Advanced Vehicle Technologies. *Transportation Research Record. https://doi.org/10.1177/0361198120938778*
14. *Pai, G., *Widrow, S., *Radadiya, J., Fitzpatrick, C. D., Knodler, M., & **Pradhan**, A. K. (2020). A Wizard-of-Oz experimental approach to study the human factors of automated vehicles: platform and methods evaluation. *Traffic injury prevention, 21(sup1), S140-S144.*
15. Du, N., Zhou, F., Pulver, E., Tilbury, D., Robert, L., **Pradhan**, A.K., Yang, X. J., (2020) Predicting Driver Takeover Performance in Conditionally Automated Driving, *Accident Analysis and Prevention.*
16. Du, N., Zhou, F., Pulver, E., Tilbury, D., Robert Jr, L. P., **Pradhan**, A. K., & Yang, X. J. (2020). Examining the effects of emotional valence and arousal on takeover performance in conditionally automated driving. *Transportation Research Part C: Emerging Technologies.*
17. Jayaraman, S.K., Chandler, C., Tilbury, D.M., Yang, X.J., **Pradhan**, A.K., Tsui, K.M. & Robert, L.P. (2019), Pedestrian Trust in Automated Vehicles: Role of Traffic Signal and AV Driving Behavior, *Frontiers in Robotics and AI. DOI:10.3389/frobt.2019.00117*
18. Du, N., Haspiel, J., Zhang, Q., Tilbury, D., **Pradhan**, A. K., Yang, X. J., & Robert Jr, L. P. (2019). Look who's talking now: Implications of AV's explanations on driver's trust, AV preference, anxiety and mental workload. *Transportation Research Part C: Emerging Technologies, 104, 428-442.*
19. Zhang, Y., Kang, T. P., Flannagan, M., Bao, S., **Pradhan**, A., & Sullivan, J. (2019). Hazard Cuing Systems for Teen Drivers: A Test-Track Evaluation on Mcity. *SAE Technical Paper. (No. 2019-01-0399).*
20. Molnar, L.J., Ryan, L.H., **Pradhan**, A.K., Eby, D.W., St. Louis, R.M., Zakrajsek, Z. (2018). Understanding trust and acceptance of automated vehicles: A simulator study of transfer of control between automated and manual driving. *Transportation Research Part F.*
21. **Pradhan**, A. K., Sullivan, J., Schwarz, C., Feng, F., & Bao, S. (2018). Training and Education: Human Factors Considerations for Automated Driving Systems. *In Meyer & Beiker (Eds.) Road Vehicle Automation Vol. 5 (pp. 77-84). Springer, Cham*
22. Buckley, L., Kaye, S., **Pradhan**, A.K., (2018). Psychosocial factors associated with intended use of automated vehicles: A simulated driving study. *Accident Analysis and Prevention*
23. Buckley, L., Kaye, S., **Pradhan**, A.K., (2017). A qualitative examination of drivers' response to partially automated vehicles. *Transportation Research Part F*
24. Flannagan, M., Bao, S., **Pradhan**, A., Sullivan, J. et al. (2017), "Varying Levels of Reality in Human Factors Testing: Parallel Experiments at Mcity and in a Driving Simulator," *SAE Technical Paper 2017-01-1374, 2017, doi:10.4271/2017-01-1374.*
25. Bingham, C.R., Simons-Morton, B.G., **Pradhan**, A.K., Li, K., Falk, E., Ouimet, M.C., Shope, J., (2016). Experimental Effects of Passenger Presence and Norms on Simulated Risky Driving Among Teenage Males. *Transportation Research Part F*
26. Simons-Morton, B.G., Klauer, S.G., Ouimet, M.C., Guo, F., Albert, P., Lee, S.E., Ehsani, J.P., **Pradhan**, A.K., Dingus, T.A. (2015). Naturalistic teenage driving study: Findings and lessons learned. *Journal of safety research 54, 41-e29.*
27. Ouimet, M.C., **Pradhan**, A.K., Brooks-Russell, A., Ehsani, J.P., Berbiche, D., Simons-Morton, B.G., (2015). Young drivers and their passengers: A systematic review of epidemiological studies on crash risk. *Journal of Adolescent Health*
28. McDonald, C. C., Goodwin, A. H., **Pradhan**, A. K., Romoser, M. R., & Williams, A. F. (2015). A review of hazard anticipation training programs for young drivers. *Journal of Adolescent Health, 57(1), S15-S23.*

29. Liu, D., Tran, V., **Pradhan**, A.K., Li, K., Bingham, C.R., Simons-Morton, B.G., Albert, P.S., (2014). Assessing Risk-Taking in a Driving Simulator Study: Modeling Longitudinal Semi-Continuous Driving Data Using a Two-Part Regression Model with Correlated Random Effects. *Analytic Methods in Accident Research*
30. Cascio, C., Carp, J., O'Donnell, M.B., Tinney, F.J., Bingham, C.R., Shope, J.T., Ouimet, M.C., **Pradhan**, A.K., Simons-Morton, B.G., Falk, E.B. (2014). Buffering social influence: Neural correlates of response inhibition predict driving safety in the presence of a peer. *Journal of Cognitive Neuroscience*
31. **Pradhan**, A.K., Li, K., Bingham, C.R., Simons-Morton, B.G., Ouimet, M.C., Shope, J.T., (2014) Peer passenger influences on teen drivers' visual scanning behavior during simulated driving. *Journal of Adolescent Health, 54(5), S42–S49. doi:10.1016/j.jadohealth.2014.01.004*
32. Simons-Morton, B. G., Guo, F., Klauer, S. G., Ehsani, J. P., & **Pradhan**, A. K. (2014). Keep your eyes on the road: young driver crash risk increases according to duration of distraction. *Journal of Adolescent Health, 54(5 Suppl), S61–7. doi:10.1016/j.jadohealth.2013.11.021*
33. Falk, E. B., Cascio, C. N., Brook O'Donnell, M., Carp, J., Tinney, F. J., Bingham, C. R., Shope, J.T., Ouimet, M. C., **Pradhan**, A. K., Simons-Morton, B. G. (2014). Neural Responses to Exclusion Predict Susceptibility to Social Influence. *Journal of Adolescent Health, 54(5), S22–S31. doi:10.1016/j.jadohealth.2013.12.035*
34. Simons-Morton, Bingham, Falk, Li, **Pradhan**, A.K., Ouimet, Almani, Shope (2014) Experimental Effects of Injunctive Norms on Simulated Risky Driving Among Teenage Males. *Health psychology,33(7), 616.*
35. Divekar, G., **Pradhan**, A. K., Masserang, K., Pollatsek, A., Fisher, D.L. (2013). A Simulator Evaluation of the Effects of Attention Maintenance Training on Glance Distributions of Younger Novice Drivers Inside and Outside the Vehicle, *Transportation Research F: Traffic Psychology and Behaviour, 20, 154-169*
36. Ouimet, M.C., **Pradhan**, A.K., Simons-Morton, B.G., Divekar, G., Mehranian, H., Fisher, D.L. (2013). The effect of male teenage passengers on male teenage drivers: Findings from a driving simulator study. *Accident Analysis & Prevention, 58, 132-139*
37. Simons-Morton, B., Bingham, R., Ouimet, M.C., **Pradhan**, A.K., Chen, R., Barretto, A., Shope, J., (2013) The Effect on Teenage Risky Driving of Feedback From a Safety Monitoring System: A Randomized Controlled Trial. *Journal of Adolescent Health, 53 (1), 21-26*
38. Taylor, T., **Pradhan**, A.K., Divekar, G., Mehranian, H., Romoser, M., Muttart, J., Pollatsek, A., Fisher, D. L. (2013). The View from the Road: The Contribution of On Road Gaze Monitoring Technologies to Theoretical and Practical Debates. *Accident Analysis and Prevention, 58, 175-186*
39. Divekar, G., **Pradhan**, A. K., Pollatsek, A., Fisher, D. L. (2012). Effect of External Distractions: Behavior and Vehicle Control of Novice and Experienced Drivers Evaluated. *Transportation Research Record, 2321, 1, 15-22*
40. **Pradhan**, A.K., Divekar, G., Masserang, K., Romoser, M., Zafian, T., Blomberg, R.D., Thomas, F.D., Reagan, I., Knodler, M., Pollatsek, A., Fisher, D.L. (2011) The Effects of Focused Attention Training (FOCAL) on the Duration of Novice Drivers' Glances Inside the Vehicle. *Ergonomics, Vol 54; Issue 1; 917-931*
41. Muttart, J.W., Hurwitz, D.S., **Pradhan**, A.K., Fisher, D.L., Knodler, M.A. (2011) Developing an Adaptive Warning System for Backing Crashes in Different Types of Backing Scenarios. *Journal of Transportation Safety & Security; Vol 3; Issue 1; 38-58*
42. Hurwitz, D.S., **Pradhan**, A.K., Fisher, D.L., Knodler, M.A., Muttart, J.W., Menon, R., Meissner, U. (2010) Backing Collisions: A Study of Drivers' Eye and Backing Behavior Using Combined Rear-View Camera and Sensor Systems. *Injury Prevention; 16; 79-84*
43. Garay-Vega, L., **Pradhan**, A.K., Weinberg, G., Schmidt-Nielsen, B., Harsham, B., Shen, Y., Divekar, G., Romoser, M., Knodler, M., Fisher, D.L. (2010) Evaluation of Different Speech and Touch Interfaces to In-vehicle Music Retrieval Systems. *Accident Analysis and Prevention 42 (2010) 913-920*
44. Chan, E., **Pradhan**, A. K., Pollatsek, A., Knodler, M. A., Fisher, D. L. (2010) Are driving simulators effective tools for evaluating novice drivers' hazard anticipation, speed management, and attention maintenance skills? *Transportation Research F, 13, 343–353*
45. **Pradhan**, A.K., Pollatsek, A., Knodler, M.A. and Fisher, D.L. (2009) Can Novice Drivers be Trained to Scan for Information Which Will Reduce Their Risk in Roadway Traffic Scenarios That are Hard to

Identify as Hazardous? *Ergonomics, 52:6, 657-673 [Liberty Mutual Award, Institute of Ergonomics and Human Factors]*

46. Pollatsek, A., Fisher, D. L., **Pradhan**, A. K., (2008) Using Eye Movements to Study and Improve Driving Safety. *In K.Rayner, D. Shem, X. Bai, & G. Yan (Eds). Cognitive and Cultural Influences on Eye Movements. (pp.157-172). Tianjin People's Press/Psychology Press.*

47. Fisher, D. L., **Pradhan**, A. K., Pollatsek, A. and Knodler, M. A. (2007) Empirical Evaluation of Hazard Anticipation Behaviors in the Field and on Driving Simulator Using an Eye Tracker. *Transportation Research Record, No. 2018, pp. 80-86.*

48. Pollatsek, A., Fisher, D. L. and **Pradhan** A. K. (2006) Identifying and Remediating Failures of Selective Attention in Younger Drivers. *Current Directions in Psychological Science. Volume 15. Number 5, 255-259*

49. **Pradhan**, A. K., Fisher, D. L. and Pollatsek, A. (2006) Risk Perception Training for Novice Drivers: Evaluating Duration of Effects of Training on a Driving Simulator. *Transportation Research Record, No. 1969, pp. 58-64*

50. Fisher, D. L., Pollatsek, A. P. and **Pradhan**, A. (2006). Can novice drivers be trained to scan for information that will reduce their likelihood of a crash? *Injury Prevention 2006;12(suppl_1):i25-i29*

51. Pollatsek, A., Narayanaan, V., **Pradhan**, A. K. and Fisher, D. L. (2005). The Use of Eye Movements to Evaluate a PC-Based Risk Awareness and Perception Training (RAPT) Program on an Advanced Driving Simulator. *Human Factors, Volume 48, Number 3, 447-464.*

52. **Pradhan**, A. K., Hammel, K. R., DeRamus, R., Pollatsek, A., Noyce, D. A. and Fisher, D. L (2005). Using Eye Movements to Evaluate Effects of Driver Age on Risk Perception in a Driving Simulator. *Human Factors, Volume 47, No 4, 840-852*

53. Fisher, D. L., Upchurch, J., **Pradhan**, A.K., Mehranian, H., Romoser, M. (2004). Signing Two-Lane Freeway Exits with an Option Through Lane in Extreme Conditions: Anatomy of Drivers' Behavior. *Transportation Research Record, No. 1899, pp. 35-43.*

B - Technical Reports, and Book Chapters

***** *Denotes Student Authors advised by me*

1. **Pradhan**, A. K., Roberts, S. C., *Pai, G., Zhang, F., & Horrey, W. J. (2023). Change in Mental Models of ADAS in Relation to Quantity and Quality of Exposure. *AAA Foundation for Traffic Safety, Washington DC*
2. *Pai, G., & **Pradhan**, A. K. (2022). Evaluating Mixed Reality Training for Calibrating Operators' Mental Models of Advanced Driver Assistance Systems. Link Foundation Final Report.

3. **Pradhan**, A.K., *Hungund, A., & Sullivan, D. (2022). Impact of Advanced Driver Assistance Systems (ADAS) on Road Safety and Implications for Education, Licensing, Registration, and Enforcement. *Report No. 22-027, Massachusetts Department of Transportation*

4. Jenness, J. W., Benedick, A. K., Singer, J., Yahoodik, S., Petraglia, E., Jaffe, J., Sullivan, J. M., & **Pradhan**, A. K. (2022). Automated driving systems' communication of intent with shared road users *(Report No. DOT HS 813 148). National Highway Traffic Safety Administration.*

5. **Pradhan**, A. K., Pai*, G., Knodler, M., Fitzpatrick, C., & Horrey, W. J. (2021). Driver's Mental Models of Advanced Vehicle Technologies: A Proposed Framework for Identifying and Predicting Operator Errors. *AAA Foundation for Traffic Safety, Washington DC*
6. Knodler, M. A., Fitzpatrick, C. D., **Pradhan**, A., Samuel, S., Tainter, F., & *Mangalore, G. P. (2020). Minimum Time to Situational Awareness During Transfer of Control Under Varying Levels of Task Load *(No. UM-3-Y2). Safety Research Using Simulation (SAFER-SIM) University Transportation Center.*
7. **Pradhan**, A., *Jeong, H., & Bao, S. (2020). Connected and Automated Vehicle Based Intersection Maneuver Assist Systems (CAVIMAS) and Their Impact on Driver Behavior, Acceptance, and Safety. *UM Transportation Research Institute. Report No.UMTRI-2020-3*
8. Molnar, L.J., **Pradhan**, A.K., Eby, D.W., Ryan, L., St. Louis, R., Zakrajsek, J., Ross, B., Lin, B.T., Liang, C., Zalewski, B., Zhang, L. (2017). Age-Related Differences in Driver Behavior Associated with

Automated Vehicles and the Transfer of Control between Automated and Manual Control: A Simulator Evaluation. *(UMTRI Report - 2017).*

9. **Pradhan**, A.K. & Crundall, D. (2016) Hazard Avoidance in Young Drivers: Definitions and a Framework. *In Fisher, Horrey, Caird, Trick (Eds.) Handbook of Teen and Novice Drivers, CRC Press.*
10. Sullivan, J.M., Flannagan, M.J., **Pradhan**, A.K., Bao, S. (2016). Literature Review of Behavioral Adaptation to Advanced Driver Assistance Systems. *AAA Foundation for Traffic Safety, Washington DC*
11. **Pradhan**, A. K., Buckley, L., & Hu, X. S. F. (2015). Risk-Taking Behaviors and Prefrontal Cortex Activity of Male Adolescents in the Presence of Peer Passengers during Simulated Driving: A Functional Near-Infrared Spectroscopy (fNIRS) *Study (UMTRI Report - ATLAS-2015-05).*
12. Pollatsek, A., Vlakveld, W., Kappé, B., **Pradhan**, A.K., Fisher, D.L. (2011) Driving Simulators as Training and Evaluation Tools: Novice Drivers. *In Fisher, D.L., Rizzo, M., Caird, J., Lee, J.D.(Eds). Handbook of Driving Simulation for Engineering, Medicine, and Psychology. CRC Press*
13. Thomas, F.D., Pollatsek, A., **Pradhan**, A.K., Divekar, G.,Blomberg, R.D., Reagan, I, Fisher, D.L. (2011) Field and Simulator Evaluations of a PC-Based Attention Maintenance Training Program. *Report DOT HS 811 469, NHTSA*
14. Fisher, D.L., Thomas, F.D., **Pradhan**, A.K., Pollatsek, A., Blomberg, R.D., Reagan, I. (2010) Development and Evaluation of a PC-based Attention Maintenance Training Program. *Report DOT HS 811 252, NHTSA*

C - Peer Reviewed Conference Proceedings

***** *Denotes Student Authors advised by me*

1. Lenneman, J.K., *Hungund, A.P., *Pamarthi, J., **Pradhan**, A.K., (2023) Enhancing ADAS Knowledge and Trust Through Consumer Education. *Proceedings of 2023 FAST-zero conference, Kanazawa, Japan*
2. *Pamarthi, J., *Hungund, A., Wang, M., Sayer, T., Hallman, J., Roberts, S., & **Pradhan**, A. K. (2023). Risk-ATTEND (Risk Anticipation Training to Enhance Novice Driving): Pilot Evaluation of a Risk Anticipation Training Program for Teen Drivers. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 21695067231192622. https://doi.org/10.1177/21695067231192622*
3. **Pradhan**, A. K., *Hungund, A., *Pai, G., & *Pamarthi, J. (2022) How Does Training Influence Use and Understanding of Advanced Vehicle Technologies: A Simulator Evaluation of Driver Behaviour & Mental Models. *In Proceedings of the 8th Road Safety and Simulation International Conference. Athens, Greece.*
4. *Hungund, A. P., & **Pradhan**, A. K. (2022). A survey on knowledge and perceptions of advanced driver assistance systems in Massachusetts drivers. *Traffic injury prevention, 1-3.*
5. *Pai, G., *Widrow, S., *Radadiya, J., Fitzpatrick, C. D., Knodler Jr, M., & **Pradhan**, A. K. (2021). Comparison of Simulation Approaches to evaluate Driver Behaviors at Transfer-of-Control Situations during Automated Driving. *In IIE Annual Conference. Proceedings (pp. 381-386). Institute of Industrial and Systems Engineers (IISE).*
6. *Pai, G., *Hungund, A. P., *Widrow, S., *Radadiya, J., & **Pradhan**, A. K. (2021). Users' Perception of Training Approaches for Advanced Driver Assistance Systems (ADAS). *65th International Annual Meeting of the Human Factors and Ergonomics Society.*
7. Du, N., Kim, J., Zhou, F., Pulver, E., Tilbury, D., Robert, L. P., **Pradhan**, A., & Yang, X. J. (2020). Evaluating Effects of Cognitive Load, Takeover Request Lead Time, and Traffic Density on Drivers' Takeover Performance in Conditionally Automated Driving, *Proceedings of 12th International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutoUI 2020), September 21-22, 2020, Washington, DC, USA, http://hdl.handle.net/2027.42/156045.*
8. Du, N., Zhou, F., **Pradhan**, A., Tilbury, D., Robert, L. P., & Yang, X. J. (2020). Examining Effects of Scenario Type and Vehicle Speed on Takeover Readiness and Performance in Conditionally Automated

Driving, *Proceedings of the 64th Annual Meeting of the Human Factors and Ergonomics Society (HFES 2020), October 5-9, 2020, Chicago.*

9. Jayaraman, S., Tilbury, D.M., Yang, X.J., **Pradhan**, A.K., and Robert, L.P. (2020). Analysis and Prediction of Pedestrian Crosswalk Behavior during Automated Vehicle Interactions, *Proceedings of the International Conference on Robotics and Automation (ICRA 2020), May 31-June 4, 2020, Paris, France.*

10. Jayaraman, S., Robert, L.P., Yang, X.Y., **Pradhan**, A., Tilbury, D. Efficient Behavior-aware Control of Automated Vehicles at Crosswalks using Minimal Information Pedestrian Prediction Model, *Proceedings of the American Control Conference (ACC 2020), July 1-3, 2020, Denver, CO, USA.*

11. Du, N., Ayoub, J., Zhou, F., **Pradhan**, A., Robert, L. P., Tilbury, D., & Yang, X. J. (2019). Examining the Impacts of Drivers' Emotions on Takeover Readiness and Performance in Highly Automated Driving. *Proceedings of the 63rd Annual Meeting of the Human Factors and Ergonomics Society. October 28 - November 1, 2019 in Seattle, WA*

12. **Pradhan**, A., Jeong, H., & Ross, B. (2019). Is driving simulation a viable method for examining drivers' ethical choices? An exploratory study. *In Proceedings of the international driving symposium on human factors in driver assessment, training and vehicle design (Vol. 2019, pp. 106-112). University of Iowa Public Policy Center.*

13. **Pradhan**, A. K., Crossman, J., & Sypniewski, A. (2019). Improving driver engagement during L2 automation: a pilot study. *In Proceedings of the international driving symposium on human factors in driver assessment, training and vehicle design (Vol. 2019, pp. 280-286). University of Iowa Public Policy Center.*

14. Yang, X.J., Tilbury, D., **Pradhan**, A.K., Robert, L. (2018). Human Autonomous Vehicles Interactions: An Interdisciplinary Approach, *36th ACM Conference on Human Factors in Computing Systems, (CHI 2018) April 21-26, 2018, Montreal, Canada,*

15. Du, N., Tilbury, D., Robert, L., Yang, X. J., & **Pradhan**, A. (2018). A Cross-cultural study of trust building in autonomous vehicles. *Conference on Autonomous Vehicles in Society: Building a Research Agenda, May 18–19 2018, East Lansing, MI (2018)*

16. **Pradhan**, A.K., Pulver, E., Zakrajsek, J., Bao S., Molnar, L (2018) Perceived safety benefits, concerns, and utility of Advanced Driver Assistance Systems among owners of ADAS-equipped vehicles. *2018 Annual Conference Association for the Advancement of Automotive Medicine, Nashville, TN*

17. **Jayaraman**, S.K., Creech, C., Robert, L. P., Tilbury, D., Yang, X. J., Pradhan, A. and Tsui, K. (2018). Trust in AV: An Uncertainty Reduction Model of AV-Pedestrian Interactions, *Proceedings of the Companion of the 2018 ACM/IEEE International Conference on Human-Robot Interaction (HRI 2018), March 5–8, 2018, Chicago, IL, USA*

18. Haspiel, J., Du, N., Yang, X. J., Tilbury, D., **Pradhan**, A., Robert, L. P., (2018). Explanations and Expectations: Trust Building in Automated Vehicles, *Proceedings of the Companion of the 2018 ACM/IEEE International Conference on Human-Robot Interaction (HRI 2018), March 5–8, 2018, Chicago, IL, USA*

19. Yang, X. J., Tilbury, D., **Pradhan**, A., Robert, L. P. (2018). Interacting with Autonomous Vehicles: An Interdisciplinary Approach presented at the Workshop on the Interacting with Autonomous Vehicles: Learning from other Domains at *36rd ACM Conference on Human Factors in Computing Systems (CHI 2018) April 21-26, 2015, Montreal, Canada,*

20. **Pradhan**, A.K., Lin, B.T., Wege, C., Babel, F. (2017). Effects of Behavior-based Driver Feedback Systems on Commercial Long Haul Operator Safety. *Ninth International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*

21. Rajab, S., Bai, S., Saigusa, S., Keller, J., **Pradhan**, A.K., Bao, S., Sullivan, J. (2017). Driver to Driver (D2D) Personalized Messaging Based on Connected Vehicles: Concept Evaluation via Simulation. *Fourth International Symposium on Future Active Safety Technology Toward Zero Traffic accidents September*

2017, Japan

22. Creech, C., Jayaraman, S.K., Robert, L., Tillbury, D., Yang, X.J., **Pradhan**, A.K., & Tsui, K. (2017). Trust and Control in Autonomous Vehicle Interactions. *Morality and Social Trust in Autonomous Robots workshop, Robotics: Science and Systems 2017*

23. **Pradhan**, A.K., Hu, X.S., Buckley, L., Bingham, C.R., (2015). Pre-frontal cortex activity of male drivers in the presence of passengers during simulated driving: An exploratory functional near-infrared spectroscopy (fNIRS) study. *Eighth International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*

24. Simons-Morton, B.G., Bingham, C.R., Li., K., Shope, J., **Pradhan**, A.K., Falk, E., Albert, P.S. (2015) Experimental Effects of Pre-drive Arousal on Teenage Simulated Driving Performance in the Presence of a Teenage Passenger. *Eighth International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*

25. **Pradhan**, A.K., Li, K., Ehsani, J., Ouimet, M.C., Klauer, S.G., Simons-Morton, B.G., (2013) Measuring Young Drivers' Behaviors during Complex Driving Situations. *Seventh International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*

26. Simons-Morton, B.G., Li, K., Russell, A., Ehsani, J., **Pradhan**, A.K., Ouimet, M.C., Klauer, S.G., (2013) Validity of the C-RDS Self-Reported Risky Driving Measure. *Seventh International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*

27. Ehsani, J., Russell, A., Li, K., Perlus, J., **Pradhan**, A.K., Simons-Morton, B.G., (2013) Novice Teen Driver Cell Phone Use Prevalence. *Seventh International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*

28. Divekar, G., **Pradhan**, A. K., Pollatsek, A., Fisher, D. L. (2012). External Distractions: Evaluation of their effect on younger novice and experienced drivers' behavior and vehicle control. *91st Transportation Research Board Annual Meeting, National research Council, Washington D.C.*

29. **Pradhan**, A.K., Simons-Morton, B.G., Lee, S.E., Klauer, S.G. (2011) Hazard Perception and Distraction in Novice Drivers: Effects of 12 Months Driving Experience. *Sixth International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, June 2011.*

30. Taylor, T.G.G., Masserang, K.M., **Pradhan**, A.K., Divekar, G., Samuel, S., Muttart, J.W., Pollatsek, A., Fisher, D.L. (2011) Long Term Effects of Hazard Anticipation Training on Novice Drivers Measured on the Open Road. *Sixth International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, June 2011.*

31. **Pradhan**, A.K., Masserang, K, Pollatsek, A., Divekar, G., Romoser, M., Reagan, I., Fisher, D.L. (2010) Training Attention Maintenance: A First Step. *89th Transportation Research Board Annual Meeting, National Research Council, Washington D.C.*

32. Muttart, J., Hurwitz, D., Fisher, D.L., **Pradhan**, A.K., Knodler, M.A. (2010) Backing Acceleration and Response Time to an Audible Warning in a Field Test. *89th Transportation Research Board Annual Meeting, National Research Council, Washington D.C.*

33. **Pradhan**, A.K., Masserang, K., Divekar, G., Regan, I., Thomas, F. D., Blomberg, R., Pollatsek, A., Fisher, D., (2009) Attention Maintenance in Novice Drivers - Assessment and Training. *Fifth International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Big Sky, Montana, June 2009.*

34. Chan, E., **Pradhan**, A.K., Knodler, M. A., Pollatsek, A. and Fisher, D. L. (2008) Empirical Evaluation on a Driving Simulator of the Effect of Distractions Inside and Outside the Vehicle on Drivers' Eye Behaviors. *87th Transportation Research Board Annual Meeting, National Research Council, Washington D.C.*

35. **Pradhan**, A., Pollatsek, A., Fisher, D. L., (2007). Comparison of Trained and Untrained Novice Drivers' Gaze Behavior in Risky and Non-Risky Scenarios. *Proceedings of the Fourth International Driving*

Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Stevenson, Washington, July 2007.

36. **Pradhan**, A. K., Fisher, D. L. and Pollatsek, A. (2006). Risk Perception Training for Novice Drivers: Evaluating Duration of Effects on a Driving Simulator. *85th Transportation Research Board Annual Meeting CD-ROM, TRB, National Research Council, Washington, D.C.*

37. **Pradhan**, A. K., Fisher, D. L., Pollatsek, A., Knodler, M. and Langone, M. (2006) Field Evaluation of a Risk Awareness and Perception Training Program for Younger Drivers. *Human Factors and Ergonomics Society 50th Annual Meeting, San Francisco, Oct 16-20*

38. **Pradhan**, A. K., Fisher, D.L. and Pollatsek, A. (2005). The Effects of PC-Based Training on Novice Drivers' Risk Awareness in a Driving Simulator. *3rd International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Rockport, Maine, June 2005.*

39. Fisher, D. L., Narayanaan, V., **Pradhan**, A.K. and Pollatsek, A. (2004). Using Eye Movements in Driving Simulators to Evaluate Effects of PC-Based Risk Awareness Training. *Proceedings of the Human Factors and Ergonomics Society 48th Annual Meeting, New Orleans, Sept 20-24, 2266-2270*

40. **Pradhan**, A.K., Hammel, K.R., DeRamus, R., Noyce, D.A., Pollatsek, A. and Fisher, D.L. (2003). The Use of Eye Movements to Evaluate the Effects of Driver Age on Risk Perception in an Advanced Driving Simulator. *82nd Transportation Research Board Annual Meeting CD-ROM, TRB, National Research Council, Washington, D.C.*

41. Hammel, K.R., Fisher, D.L. and **Pradhan**, A.K. (2002). Verbal and Spatial Loading Effects on Eye Movements in Driving Simulators: A Comparison to Real World Driving. *Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting, Baltimore.*

D - Conference Posters, Abstracts, Workshops

***** *Denotes Student Authors advised by me*

1. *Pai, Ganesh & **Pradhan**, A.K., (2024). Drivers' Hazard Avoidance Behaviors When Using Advanced Driver Assistance Systems: An Observational Simulator Study, *Transportation Research Board Annual Meeting, January 2024, Washington DC*

2. Zhang, C., Guo, H., Feng, F., **Pradhan**, A.K., Bao, S., (2023). Evaluation of Multiple Training Approaches on Enhancing Drivers' Understanding of Automated Vehicle Systems. *Transportation Research Board Annual Meeting, January 2024, Washington DC*

3. *Pamarthi, J., *Hungund, A.P., Roberts, S.C., **Pradhan**, A.K. (2023) Design and usability evaluation of Risk-ATTEND - an updated version of a computer-based risk anticipation training program. *AAAM Annual Conference, Indianapolis, IN*

4. *Hungund, A. P., *Pamarthi, J., *Pai, G., & **Pradhan**, A. K. (2022). Using training to improve drivers' knowledge and understanding of advanced driver assistance systems—an experimental study. *Traffic injury prevention*, *23(S1), S229-S230.*

5. **Pradhan**, A.K., *Hungund, A., *Pai, G., *Pamarthi, J., (2022). How does Training Influence Use and Understanding of Advanced Vehicle Technologies? A simulator evaluation of driving behavior and mental models. *8th Road Safety and Simulation Conference, June 2022, Athens, Greece*

6. *Pai, G., *Hungund, A. P., *Widrow, S., *Radadiya, J., & **Pradhan**, A. K. (2021). Users' Perception of Training Approaches for Advanced Driver Assistance Systems (ADAS). *65th International Annual Meeting of the Human Factors and Ergonomics Society.*

7. *Hungund, A.P., *Pai, G., & **Pradhan**, A.K., (2021). A Systematic Review of Research on Driver Distraction in the Context of Advanced Driver Assistance Systems, *Transportation Research Board Annual*

Meeting, January 2021, Washington DC

8. *Pai, G., Knodler, M., Fitzpatrick, C., *Radadiya, J., *Widrow, S., D., & **Pradhan**, A. K. (2021) Cross-Platform Comparison of Driver Responses during Simulated Automated Driving and Correlations with Trust, *Transportation Research Board Annual Meeting, January 2021, Washington DC*

9. *Widrow, S., *Radadiya, J., *Pai, G., **Pradhan**, A.K., (2020) A wizard of Oz Experiment to Observe Drivers' Perception of Automated Driving: Methods & Preliminary Results. *Graduate Diversity Recruitment Symposium, Amherst MA*

10. *Widrow, S., *Radadiya, J., *Pai, G., **Pradhan**, A.K., (2020) A Wizard-of-Oz experimental approach to study the Human Factors of Automated Vehicles: Platform and methods evaluation. *Research Experience for Undergraduates Symposium, Amherst MA (Accepted but cancelled due to COVID)*

11. *Radadiya, J., *Pai, G., and **Pradhan**, A.K., (2020) Are limitations of advanced vehicle technologies described consistently for different vehicle models: An examination for Adaptive Cruise Control, *Traffic Injury Prevention, DOI: 10.1080/15389588.2020.1829932*

12. **Pradhan**, A.K., *Pai, G., *Radadiya, J., Knodler, M., Fitzpatrick, C., Horrey, W.J. (2020) A Proposed Framework for Identifying and Predicting Operator Errors when Using Advanced Vehicle Technologies. *Transportation Research Board Annual Meeting, January 2020, Washington DC*

13. Du, N., Zhou, F., Pulver, E., Tilbury, D., Robert, L.P., **Pradhan**, A., and Yang, J.X. (2020). Predicting Takeover Performance in Conditionally Automated Driving, *In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI 2020), April 25-30, 2020, Honolulu, Hawaii, USA. https://dx.doi.org/10.1145/3334480.3382963*

14. **Pradhan**, A.K., Jeong, H., Bao, S., Jessamy, C., Novak, M., Desai, S., (2019) Simulator Evaluation of an Intersection Maneuver Assist System with Connected and Automated Technologies. *Road Safety and Simulation Conference, Iowa City, IA.*

15. *Pai, G., **Pradhan**, A.K., (2019) Error Identification and Prediction Using State Diagrams and Error Taxonomies: Automated Vehicles Workshop, *Road Safety and Simulation Conference, Iowa City, IA*

16. *Radadiya, J., *Pai, G., **Pradhan**, A.K., (2019) What information do consumers receive from manufacturers about limitations of Advanced Vehicle Technologies? A survey for Adaptive Cruise Control (ACC). *Research Experience for Undergraduates Symposium, Amherst MA*

17. Du, N., Kim, J., Zhou, F., Tilbury, D., Robert, L. P., **Pradhan**, A.K. and Yang, X.J. (2019) Taking Over Control From Highly Automated Vehicles in Complex Road Situations: The Role of Drivers' Cognitive Load. *2019 Engineering Research Symposium, Ann Arbor, MI.*

18. Du, N., Ayoub, J., Zhou, F., **Pradhan**, A.K., Robert, L., Tilbury, D.M., Pulver, E., Yang, X.J., (2019) Examining the impacts of drivers' emotions on takeover readiness and performance in highly automated driving. *3rd IAVSD Workshop on Dynamics of Road Vehicles, Connected and Automated Vehicles, April 28-30, 2019, Ann Arbor, Michigan, USA*

19. Jayaraman, S.K., Tilbury, D.M., Yang., X.J., **Pradhan**, A.K., Robert, L., (2019) Hybrid Framework for Pedestrian Tracking for Automated Vehicle Applications. *3rd IAVSD Workshop on Dynamics of Road Vehicles, Connected and Automated Vehicles, April 28-30, 2019, Ann Arbor, Michigan, USA*

20. *Martinez, G., *Bakhtiari, S., *Agrawal, R., Knodler, M., Fitzpatrick, C., **Pradhan**, A.K., (2019) Influence of vehicle technology names on users' understanding of their capabilities. *MassDOT Transportation Innovations Conference. Worcester, MA*

21. **Pradhan**, A.K., Jeong, H., Lin, B., Zakrajsek, J., Ryan, L., Eby, D., Molnar, L (2019) Young Drivers' Visual Search Behaviors in Automated Vehicles. *Transportation Research Board Annual Meeting*

22. Xu, Y., Bao, S., **Pradhan**, A.K., & Sayer, J.R. (2019). Modeling Drivers' Reaction When Being Tailgated: A Random Forests Method. *Transportation Research Board Annual Meeting*

23. Bao, S., Feng, F., **Pradhan**, A. K., Zhang, Y., Jia, B., Sullivan, J., (2019) Examination of the effectiveness of multiple training methods on supporting drivers' better understanding towards level 2 automated vehicle systems. *Transportation Research Board Annual Meeting*

24. Jayaraman, S.K., Creech, C., Tilbury, D.M., Yang., X.J., **Pradhan**, A.K., Tsui, K.M., Robert, L. (2018) Workload in Pedestrians Interacting with Automated Vehicles: A VR Study. *2nd IFAC Conference on Cyber-Physical & Human-Systems, Dec. 14-15, 2018, Miami, FL, USA*

25. **Pradhan**, A.K., Pulver, E., Zakrajsek, J., Bao, S., Molnar, L. (2018) Characterizing perceptions of automated driving systems based on usage of advanced driver assistance systems: A methodology. *6th Annual Automated Vehicles Symposium, San Francisco, CA, July 2018*

26. **Pradhan** A, Qu W, Ross B. (2018) Male adolescents' driving behaviors with multiple male peer passengers: a driving simulator evaluation *Injury Prevention 2017;23:A7-A8.*

27. He*, Kevin & **Pradhan**, A.K., (2017). Studying Driver Behavior in a Connected Vehicle Environment Using Driving Simulation. *2017 University of Michigan Spring UROP Symposium*

28. Zalewski*, B. & **Pradhan**, A.K., (2017). Automated Vehicles and Driver Behaviors Based on Age. *2017 University of Michigan Spring UROP Symposium*

29. Duncan-Doroff*, Z. & **Pradhan**, A.K., (2017). The Effects of Teen Passengers on Teen Drivers. *2017 University of Michigan Spring UROP Symposium*

30. Wu, L., Bao, S., Feng, F., **Pradhan**, A.K., Peng, H., Sayer, J., (2017) An examination of teen drivers' car-following behavior when compared to adult drivers. *6th International Naturalistic Driving Research Symposium, The Hague, June 2017*

31. O'Connor K.L., Ross B., Sharma D.K., Bhargava T., Zakrajsek J., **Pradhan** A.K., Broglio S.P. (2017). Effects of Concussion History on Driving Behaviors. *2017 International Brain Injury Conference.*

32. Lin, B.T.W., **Pradhan**, A.K., (2016). Evaluation of the Effects of a Driver Feedback Program on Long-haul Truck Driver's Safety Behavior. *UMTRI Transportation Safety Research Symposium, Ann Arbor, October, 2016*

33. **Pradhan**, A. K., Molnar, L., Ryan, L., Eby, D., Bingham, R. (2016). A Driving Simulator Examination of Age-Related Differences in Driver Behavior Associated with Automated Vehicles. *Meeting the Challenges of Safe Transportation Ann Arbor, September 2016*

34. **Pradhan**, A.K., Molnar, L., Ryan, L., Eby, D. (2016). Vehicle Automation and Driver Age: Human Factors implications. *4th Annual Automated Vehicles Symposium, San Francisco, CA, July 2016*

35. Beard, E.C., Cascio, C., O'Donnell, Bingham, **Pradhan**, Shope, Falk (2016). Neural Mechanisms Associated With Social Influence Predict Social Influence on Driving Risk. *66th International Communication Association Annual Conference, Fukuoka, Japan*

36. Kessler*, L., Ghias*, H., **Pradhan**, A.K. (2016). Using driving simulation to examine the influence of female peer passengers on male adolescents' risky driving. *2016 University of Michigan Spring UROP Symposium*

37. Barakat*, A., **Pradhan**, A.K., (2016). Is the driver still relevant in self-driving cars? Studying driver behaviors in automated vehicles. *2016 University of Michigan Spring UROP Symposium*

38. Vozza*, A., **Pradhan**, A.K. (2016). Studying driver behaviors in self-driving cars using a driving simulator. *2016 National Conference on Undergraduate Research, University of North Carolina, Ashville*

39. Tobeler*, L., Barakat*, A., **Pradhan**, A.K. (2015). A review of the knowledge gaps and research questions related to human factors issues surrounding automated vehicles. *UMTRI Transportation Safety Research Symposium, Ann Arbor, October, 2015*

40. Barakat*, A., Tobeler*, L., **Pradhan**, A.K. (2015). Empirically studying driver behavior in automated vehicles: An overview of experimental research methods (and challenges). *UMTRI Transportation Safety*

Research Symposium, Ann Arbor, October, 2015

41. **Pradhan**, A.K., (2015) Teen Drivers and Peer Passengers: Examining Prefrontal Cortex activity using fNIRS and Driving Simulation. *2015 SAVIR Conference, New Orleans, LA.*

42. Gagnon*, C., **Pradhan**, A.K. (2015) Studying teenagers' driving behaviors in the presence of passengers using brain imaging and driving simulation. *2015 University of Michigan Spring UROP Symposium*

43. Kumar*, A., **Pradhan**, A.K. (2015) Using Functional Near-Infrared Spectroscopy (fNIRS) and Driving Simulation to Study Effects of Passenger Presence on Teen and Adult Drivers. *2015 National Conference on Undergraduate Research, Eastern Washington University*

44. Bingham, C.R., **Pradhan**, A.K., et al (2015) Experimental Effects of Passenger Pressure and Norms on Simulated Risky Driving Among Teenage Males. *142nd APHA Annual Meeting and Exposition, New Orleans, LA.*

45. Clark*, H., Buckley, L., Bingham, C.R., Hu, F., Giordani, B., Monk, C., **Pradhan**, A.K. (2014) "Risk Taking Behaviors and Prefrontal Cortex Activity of Male Adolescents in the Presence of Peer Passengers during Simulated Driving: An fNIRS Study" *University of Michigan Injury Center 1st Annual Symposium, Ann Arbor, MI, September 2014*

46. **Pradhan**, A.K., Bingham, C.R., Sullivan, J., Eustice, R. (2014) Using driving simulation to examine human factors issues in vehicle automation. *3rd Annual Automated Vehicle Symposium, San Francisco, July 2014.*

47. **Pradhan**, A.K., Buckley, L., Bingham, C.R., Monk, C., Giordani, B., Ross, B. Using functional Near-Infrared Spectroscopy (fNIRS) and Driving Simulation to Explore Developmental Differences in Adolescents and Adults with ADHD. *Center for Human Growth and Development Anniversary Symposium, University of Michigan, MI, June 2014*

48. Almani, F., **Pradhan**, A.K., Shope, J.T., Bingham, C.R. (2013) Experimental Effects of Injunctive Norms on Simulated Risky Driving Among Teenage Males*. Preventing Injury: From Research to Practice to People. University of Michigan Injury Center Regional Conference, Ann Arbor, MI, Sept 2013.*

49. **Pradhan**, A.K., Li, K., Simons-Morton, B. G., Bingham, C.R., Ouimet, M.C., Shope, J.T. (2013) "Peer Passenger Influences on Teen Drivers: Distraction and Visual Behavior." *2013 National Meeting of the Safe States Alliance and SAVIR, Baltimore, MD, May 2013*

E - Invited Lectures & Conference Presentations

1. *Panelist for MassDOT Innovation Webinar: Impact of ADAS on Road Safety and Implications for Education, Licensing, Registration, and Enforcement (October 2022)*
2. *Panelist for Novice Driver and Automation Panel organized by NHTSA & UNC Highway Safety Research Center (January 2022)*
3. *Invited Panelist at AAA Foundation for Traffic Safety's 2021 Forum: Impact of Vehicle Technologies and Automation on Users. (September 2021)*
4. *What Automated Driving Assistance Systems Can and Cannot Do*, Smart Driving Car Summit, Princeton University, January 2021
5. *Driving Simulation as a Training and Evaluation Paradigm: Considerations for Driver Age and New Technologies.* Use of Driving Simulators to Evaluate Behaviors of Drivers: Measures and Countermeasures. Tongji University, Shanghai, China. October 2019
6. *A Human Factors Evaluation of a Vehicle-to-Infrastructure Driver Assistance System.* Road Safety and Simulation Conference – Workshop on Human Factors & Infrastructure. Iowa City, IA. October 2019.
7. *Teen Drivers & Vehicle Technology: Automation, lookout behaviors, and training.* Applied Human Factors and Ergonomics Conference – Workshop on Vehicle Automation and Vulnerable Road Users. Washington DC, July 2019.

8. *Human Factors of Automated Driving Systems: How well do we understand these systems?* ADAS to Automation, Society of Automotive Engineers International, Detroit, MI, October 2018
9. *A window into the future: Advanced Vehicle Technologies*. Distracted Driving Summit, Richmond, Virginia, Sept 2018
10. *Hazard Anticipation Testing & Training: What is it?* Novice Driver Crash Avoidance: Research to Practice Workshop, Transportation Research Board, Philadelphia, August 2018
11. *Behavioral Adaptation to Advanced Driver Assistance Systems: Impact on Teen Drivers.* Young Driver Subcommittee Mid-year meeting, Woods Hole, MA, June 2018
12. Panelist at Washington Auto Show Mobility Talks International, Panel on Human Machine Interface. Jan, 2017.
13. *ADAS & Automation in Vehicles: How do we prepare drivers for new tasks and skills.* 96th Annual Meeting of the Transportation Research Board, 2017
14. *Studying the Human Factor: Approaches and Methods to Understand Safety Related Driver Behaviors.* UMTRI Transportation Safety Research Symposium, Ann Arbor, October, 2016
15. Panelist at TU-Automotive ADAS & Autonomous USA 2016 on ADAS & Enhancing the User Experience.
16. *Smart HMI for Autonomous Vehicles: New challenges and opportunities.* Third Automotive HMI Conference, Ann Arbor, MI, April, 2016
17. *The ethics of automated vehicles: How relevant is the driver in the driverless car.* A2Ethics, Ann Arbor, MI, April 2016
18. *Use of Immersive Virtual Environments to Study Driver Behavior and Improve Road Safety.* 2016 SAE International World Congress, Detroit, MI, April 2016
19. *How relevant is the driver in the driverless car? A look at the human factor in automated vehicles.* UMTRI Transportation Safety Research Symposium, Ann Arbor, October, 2015
20. *What do drivers learn: differences between novice and experienced drivers in visual scanning behavior related to hazard anticipation.* Young Driver Subcommittee Mid-year meeting, Woods Hole, MA, August 2015.
21. *Connected and Automated Vehicle Systems: State of the Art & Relevance for Teen Driver Research*. 94th Annual Meeting of the Transportation Research Board, 2015
22. *Motor Vehicle Crashes and Digital Billboards in Michigan: An overview for an Epidemiological Study.* 94th Annual Meeting of the Transportation Research Board, 2015
23. *Transportation Safety Research: Young Driver Behavior and Injury Prevention.* University of Michigan Injury Center 1st Annual Symposium, Ann Arbor, MI, September 2014
24. *In-Vehicle Safety Feedback Systems, Parental involvement, and their Effect on Teenage Risky Driving: A Randomized Controlled Trial*, 2014 Driving Schools Association of the Americas Webinar.
25. *Examining Young Driver Behaviors Using Driving Simulation and Neuroimaging.* 2014 Traffic Safety Conference, San Antonio, Texas, May 2014
26. *Hazard Perception Training for Young Drivers.* 2014 Traffic Safety Conference, San Antonio, Texas, May 2014
27. *How technology can affect teen driver behaviors.* 2014 Michigan Traffic Safety Summit, East Lansing, MI, March 2014
28. *What do we know about the association of passengers with teenage driver crash risk.* 2013 Summer Meeting of the Subcommittee on Young Driver (AND30(1)) of the Transportation Research Board, Jonsson Center, Woods Hole, MA, June 2013
29. *Physiological measurement of operator state and applications in vehicle engineering and research*. Panel discussion co-chair. Co-sponsored by AND10 and AND30 at TRB 2013, January 2013, Washington D.C.
30. *The Long and Winding Road? Road Safety in the Kingdom of Bhutan, at* the TRB 2013 Global Road Safety Subcommittee (ANB 10(8)) Meeting, January 2013, Washington D.C.
31. *Measuring teenagers' driving competencies: Using naturalistic driving data for creating a composite skill score.* 2012 Summer Meeting of the Subcommittee on Young Driver (AND30(1)) of the Transportation Research Board, Jonsson Center, Woods Hole, MA, June 2012
32. *The Fidelity Required for Roadway Development and Evaluation*. Simulator Users Group Workshop, "Development of Standardized Descriptions of Driving Simulator Scenarios: Human Factors

Considerations" at the 84th Annual Meeting of the Transportation Research Board, Washington D.C, January 2005.

F - Other publications

1. Pradhan, A.K., (2009) Risk Awareness and Perception and The Novice Driver: Development And Evaluation Of Training Interventions And Their Influence On Tactical And Strategic Visual Search Behavior. *Dissertation. PhD, Industrial Engineering & Operations Research. Department of Mechanical and Industrial Engineering, University of Massachusetts Amherst.*
2. Fisher, D. L., Pradhan, A. K., Hammel, K. R., DeRamus, R., Noyce, D. A. and Pollatsek, A. P. (2003). Are younger drivers less able than older drivers to recognize risks on the road? *Injury Insights, February/March, 1,2,7.*

III. RESEARCH FUNDING

- *Who's Driving?: Multimodal Assessment of Driver's Sense of Agency During Vehicle Automation. UMass Interdisciplinary Research Grants, $20,000, 6/1/23 – 5/30/24, Co-PI with Youngbin Kwak PI.*
- *Evaluating the Effectiveness of Drivers' Education Modules on Safety, Massachusetts Department of Transportation, $370,000, 4/23-9/25, Co-PI with Shannon Roberts PI.*
- *Utilizing the Druid Impairment App to Access and Enhance Senior Adults' Driving Performance, MassAITC (NIA), $77,788, 6/23 – 5-24, PI with Shannon Roberts Co-PI*
- *Identifying outcome measures to evaluate effectiveness of consumer education and training for vehicle automation,* AAA Foundation for Traffic Safety/SaferSim UTC Cooperative Funding Agreement, $120,000, 9/22-2/24. Joint PI with Shannon Roberts.
- *Consumer education for advanced vehicle technologies: Tailored training based on drivers' self-perceptions and knowledge,* Toyota CSRC, $366,598, 4/22 – 9/23, PI
- *Risk Anticipation Training To Enhance Novice Driving (Risk-ATTEND): Efficacy Evaluation using Driving Simulation and Crash/Citation Records,* Toyota CSRC, 4/22 – 12/23, $378,870, PI with Shannon Roberts Co-PI
- *Hazard Anticipation-Attention Maintenance Teen Driver Training Evaluation,* Toyota CSRC, $150,000, 8/21 – 2/22, PI with Shannon Roberts Co-PI
- *Impact of Advanced Driver Assistance Systems (ADAS) on Road Safety and Implications for Education, Licensing, Registration, and Enforcement,* Massachusetts Department of Transportation, $120,000, 6/20-11/21, PI.
- *How do drivers adjust mental models as a function of exposure to ADAS technology & quality of the exposure,* AAA Foundation for Traffic Safety/SaferSim UTC Cooperative Funding Agreement, $120,000, 1/20-12/21. Joint PI with Shannon Roberts.
- *State of Knowledge on Distracted Driving,* National Highway Traffic Safety Administration (NHTSA) (through Dunlap & Associates), $79,000, 9/19–9/22, PI
- *A field study to examine driver use of Adaptive Cruise Control,* State Farm Insurance, $120,000, 10/19-12/20, PI
- *University Transportation Center for Safety Research Using Simulation (Safer Sim) Year 1-4.* U.S. Department of Transportation (through University of Iowa), $1,013,348, 2016-2021, Co-Investigator, PI:Knodler, M., with Co-Investigators: Ai, C., Christofa, E., Fitzpatrick, C., Roberts, S.,
- *The Impact of Driver's Mental Models of Advanced Vehicle Technologies on Safety and Performance*, AAA Foundation for Traffic Safety/SaferSim UTC Cooperative Funding Agreement, $120,000, 1/19-12/19, PI, with Co-Investigators M. Knodler, C. Fitzpatrick
- *Longitudinal field study of trust and acceptance of automotive safety assistance systems*. State Farm & Mcity. (1/18 – 6/19), $166,211, PI

- *Trust but Communicate: Implicit and Explicit AV Communications on Pedestrians' Trust* Toyota Research Institute. (1/18 - 12/18), $100,000, Co-Investigator with PI L. Robert, and Co-I D. Tilbury, X. Yang
- *Predicting drivers' takeover readiness and designing adaptive in-vehicle alert system.* Mcity, University of Michigan. (Jan 2018 – Dec 2019). $300,000. Co-Investigator with PI X. Yang, Co-Is D. Tilbury, L. Roberts, F. Zhou
- *Data Analysis for an objective method for trust evaluation, Phase 2*. Denso. (April 2018 – November 2018). $70,000. Co-Investigator with PI M. Flannagan, Co-Is S. Bao, J. Sullivan
- *Connected and Automated Vehicle Based Intersection Maneuver Assist Systems (CAVIMAS) and Their Impact on Driver Behavior, Acceptance, and Safety*. CCAT UTC, USDOT. (May 2017 – Apr 2018). $150,000. Principal Investigator, with Co-I S. Bao, J. Sullivan
- *Using Virtual Reality to develop Risk Awareness Perception Training for the UK.* UK Department for Transportation. (March 2017 – March 2018). Consultant.
- *Driving simulator user clinic to evaluate a Tailgater-Handling Assist System*. Honda R&D Americas. (Jun 2017 – Dec 2017). $104,742. Principal Investigator with Co-I S. Bao & J. Sullivan
- *Research on Distracted Driver Detection*. Honda R&D Americas. (June 2017 - Feb 2018). $200,209. Co-Investigator, PI: S. Bao
- *Development of an Objective Method for Trust Evaluation*. Denso. (April 2017 – March 2018). $180,000. Co-Investigator with PI M. Flannagan, Co-Is S. Bao, J. Sullivan
- *AVT Effectiveness According to Driver Variables*. State Farm & MTC. (Jan 2017 – October 2017). $83,333. Principal Investigator
- *Autism Spectrum Disorder (ASD) Hazard Perception Training.* Ford. (Jan 2017- Dec 2018). $100,000. Co-Investigator with PI: E. Hodges
- *Explanations and Expectations: Trust Building in Autonomous Vehicles*. Michigan Mobility Transformation Center, University of Michigan. (Jan 2017 – Dec 2018). $300,000. Co-Investigator with PI L. Robert, and Co-I D. Tilbury, X. Yang
- *Studying Interactions Between Drivers and Vulnerable Road Users at Intersections Using Existing Naturalistic Driving Data.* Michigan Mobility Transformation Center, University of Michigan. (Jan 2017 – Dec 2017). $91,644. Co-Investigator with PI S. Bao
- *Trust, Control and Risk in Autonomous Vehicles*. Toyota Research Institute. (Jan 2017 – Dec 2017). $100,000. Co-Investigator with PI X. Yang, Co-Is D. Tilbury, L. Roberts, F. Zhou
- *A naturalistic bicycling study in the Ann Arbor area.* Toyota Research Institute. (Jan 2017 – Dec 2017). $369,104. Co-Investigator with PI S. Bao
- *Automated Vehicle Communication and Intent with Shared Road Users.* USDOT. *(Oct 2016 – Nov 2018).* Co-Investigator with PI J. Sullivan
- *ITS Performance and Driver Acceptance Study.* Nissan Technical Center (Oct 2016 – Apr 2017). $298,000. Co-Investigator with PI J. Sullivan
- *Research on Distracted Driver Detection.* Honda R&D Americas. (Jun 2016 – Jan 2017). $100,000. Co-Investigator with PI S. Bao
- *Driver Engagement/Status Monitoring Technologies for Vehicle Automation Applications – Phase 2*. USDOT (through SoarTech). (Aug 2016 – July 2018). $125,000, Principal Investigator.
- *Evaluation of the Efficacy of Multiple Training Strategies on Drivers' Safe Operation and Trust Calibration of Level 2 and 3 Automated Vehicle Systems*. Michigan Mobility Transformation Center, University of Michigan. (May 2016 –April 2018). $200,000. Co-Investigator with PI S. Bao
- *Research on the Effects of Peripheral and Focal Cuing on Driving Behavior*. Denso (April 2016 – March 2017). $200,000. Co-Investigator with PI M. Flannagan, Co-Is S. Bao, J. Sullivan
- *Simulator Evaluation of Driver-to-Driver (D2D) Messaging Concept in a Connected Vehicles Infrastructure*. Honda (Feb 2016 – October 2016). $75,000. Principal Investigator
- *Modeling Teenage Drivers' Following Behavior: An Examination from Naturalistic Driving Data.* University of Michigan MCubed. $60,000 Co-Investigator with PI S. Bao
- *Operator Ethics in Vehicle Automation: A Sudden Reveal Simulator Study.* Michigan Mobility Transformation Center, University of Michigan. (November 2015 – October 2016). $80,000. Co-Investigator, PI. R. Bingham.

- *Driver Engagement/Status Monitoring Technologies for Vehicle Automation Applications.* USDOT SBIR (through SoarTech) (August 2015-July 2016). $17,000, Principal Investigator.
- *Effects of peripheral and focal cuing on younger driver's driving behavior.* Denso (July 2015-June 2016). $200,000. Co-Investigator with PI M. Flannagan, Co-Is S. Bao, J. Sullivan
- *Examination of Operator State Monitoring and Operator Engagement as Strategies for Mitigating Human Factors Challenges Associated with Transfer-of-Control During Automated Driving.* Michigan Mobility Transformation Center, University of Michigan. (May 2015 - June 2017). $200,000. Principal Investigator.
- *Age-related differences in driver behavior associated with automated vehicles and the transfer of control between automated and manual control: A simulator evaluation.* Michigan Mobility Transformation Center, University of Michigan. (May 2015 - July 2016). $200,000. Principal Investigator.
- *Consumers' Response to Automated Vehicles.* Michigan Mobility Transformation Center, University of Michigan. (May 2015 - June 2016). $200,000. Co-Investigator, PI. R. Bingham.
- *Investigation of drivers' adaptation behavior and decision making when interacting with automated and connected vehicle technologies.* Michigan Mobility Transformation Center, University of Michigan. (May 2015 - June 2017). $200,000. Co-Investigator, PI. S. Bao.
- *An Application of Current Legal Precedents on Fault and Liability to Crashes Involving Automated Motor Vehicles.* Michigan Mobility Transformation Center, University of Michigan. (May 2015 - June 2017). $200,000. Co-Investigator, PI. R. Bingham.
- *Persistent Effects of Concussion on Driving Behaviors: A Driving Simulator Evaluation.* University of Michigan Office of Research. (July 2015 - June 2016). $9,300. Co-Investigator PI: S. Broglio
- *Long-term Effects of Concussion on Driving Behaviors: A Driving Simulator Evaluation.* University of Michigan Injury Center. (July 2015 - June 2016). $15,000. Co-Investigator PI: S. Broglio
- *Prescription Opioids and Driving Risk: A Comparison by Dose and Medical Use and Misuse.* University of Michigan Injury Center. (July 2015 - June 2016). $25,000. Co-Investigator, PI. R. Bingham.
- *Effects of Driver Assistance Technology.* AAA Foundation for Traffic Safety. (Jan 2015 - Dec 2015). $90,000. Co-Investigator, PI. J. Sullivan
- *Using Driving Simulation to Examine the Influence of Female Peer Passengers on Male Adolescents' Risky Driving.* Center for Injury Research and Policy. The Research Institute at Nationwide Children's Hospital. (August 2014, Dec 2015). $25,000. Principal Investigator.
- *How Do Multiple Male Peer Passengers Affect Male Adolescents' Risky Driving Behaviors: A Driving Simulator Evaluation.* University of Michigan Injury Center. (July 2014 - Dec 2015). $25,000. Principal Investigator
- *The driver in the driverless car: Simulating vehicle automation for evaluation of driver behavior and performance.* Michigan Mobility Transformation Center, University of Michigan. (May 2014 - June 2016). $99,990. Principal Investigator.
- *Developmental Differences in Prefrontal Cortex Activity of Adolescents and Adults with ADHD During Simulated Driving with Peer Passengers.* University of Michigan Center for Human Growth and Development. (February 2014-August 2015) $19,998. Principal Investigator.
- *Risk-taking behaviors and pre-frontal cortex activity of male adolescents in the presence of peer passengers during simulated driving: A functional near-infrared spectroscopy (fNIRS) study*. ATLAS Center/Department of Transportation. (February 2014-August 2015). $54,402. Principal Investigator.
- *Long Haul Trucking Driver Risk Management: A DriveCam Study*. Volvo Trucks. (Nov 2013 – Oct 2015) $100,056. Principal Investigator
- *Using Naturalistic Driving Performance Data to Develop an Empirically Defined Model of Distracted Driving.* Purdue University / US-DOT Federal Highway Administration. (Feb 2013 – December 2014). Co-Investigator, PI: S Bao
- *Neural Predictors of Risky Driving and Susceptibility to Peer Influences in Adolescents*. University of Pennsylvania / NIH Subcontract. Consultant
- *Experimental Research on the Effect of Teenage Passengers on Teenage Driving Performance*. NICHD. (September 2010 – September 2015). Co-Investigator, PI: R. Bingham

IV. TEACHING

A. Courses Taught

- Fall 2023:
  - MIE 657 – Human Factors Design Engineering
    - 38 students
  - MIE 657 UWW (Online)
    - 15 students
  - MIE 496: Independent Study
    - Cleo Hein
    - ""Do "risky" drivers trust Adaptive Cruise Control more than risk-averse drivers?""
- Spring 2023:
  - MIE 360 – Human Factors Engineering
    - 52 students
  - MIE 496: Independent Study
    - Jhanvi Dudhat
    - "Examining bicycling safety behaviors based on bike lane types"
- Fall 2022:
  - MIE 597AV/697AV – Vehicle Automation Systems
    - 40 students
- Spring 2022:
  - MIE 460 – Human Factors Engineering
    - 45 students
  - BME 396: Independent Study
    - Max McMullan
    - "Discovery and Solutions to Issues in Patient-Prosthetic Interfaces"
  - CHC Honors Thesis
    - Yousef Zaidan
    - "The effects of different passenger types on young driver behavior"
- Fall 2021:
  - MIE 657 – Human Factors Design Engineering
    - 18 students
  - MIE 657 UWW (Online)
  - CHC Honors Thesis
    - Yousef Zaidan
    - "The effects of different passenger types on young driver behavior"
- Spring 2021:
  - MIE 460 – Human Factors Engineering
    - Fully online (synchronous + asynchronous) - 38 students
- Fall 2020:
  - MIE 597AV/697AV – Vehicle Automation Systems
    - Fully online (synchronous + asynchronous) - 11 students
    - Highlighted as Dean's Diversity Equity Inclusion Curriculum Challenge lesson plan
- Spring 2020:
  - MIE 460 – Human Factors Engineering
    - Switched to online format mid-semester - 48 students
- Spring 2019:
  - MIE 460 – Human Factors Engineering
    - 39 students
  - MIE460H – Human Factors Design Engineering – Honors Individualized
    - 1 student

B. Contributions to Curriculum Development

MIE 597/697AV:Vehicle Automation Systems
I developed this course aimed at upper class undergraduate students and graduate students. This was taught as a fully remote course in Fall 2020. A lesson plan for this course was highlighted as a Dean's Diversity Equity Inclusion Curriculum Challenge lesson plan.

MIE 415: Senior Design Project
Sponsored and advised a Senior Design Project Team in for the graduating class of 2022 based on industry-sponsored research. This team won the "Best IE Design Team" for 2022.

C. Graduate Students

PhD Dissertation Advisor

- Ganesh Pai Mangalore (Summer 2019 – present)
  - Completed PhD Dissertation Defense in December 2023
- Apoorva Hungund (Spring 2020 – Present)
  - Completed PhD Qualifying Examinations in Fall 2022
- Jaji Pamarthi (Fall 2021 – Spring 2023)
  - Completed PhD Qualifying Examinations in Fall 2022
- Sarah Bakhtiari (2019)
  - The student discontinued the program for a full-time position in industry
- Ravi Agrawal (2019)
  - The student discontinued the program for a full-time position in industry

MS Thesis Advisor

- Manoj Paari (2023 – present)
- Apoorva Hungund (2020 – 2021)

Thesis and Dissertation Committee Member

Student	Department	Advisor
Shashank Mehrotra, PhD	Industrial Engineering	S. Roberts
Fangda Zhang, PhD	Industrial Engineering	S. Roberts

Graduate Research Advisor

- Phoebe Father (2023 – present)
- Niraj Hosadurga (2023 – present)
- Radhika Deshmukh (2023 – present)

D. Undergraduate Students

Undergraduate Research Advisor

- Justin De Four (2023 – present)
- Christopher Choi (2023 – present)
- Srijan Srivatsa (2021 – present)
- Jhanvi Dudhat (2021 – 2023)
- Cleo Hein (2022 – present)
- Stefanie Reineke (2022 – 2023)
- Jorge Ubinas (2022 – present)

- James Kallio (2022)
- Devesh Maheshwari (2022)
- Bhupesh Kanth, Mechanical Engineering (2021)
- Aditya Surbjit (2021 – 2022)
- Lindsay Smith, Industrial Engineering (2021 - 2022)
- Sarah Widrow, Industrial Engineering (2019 – Present)
    - SaferSim UTC Excellence in Research Undergraduate Award (2020)
    - WTS/RI Undergraduate Scholarship (2021)
    - WTS Sharon D. Banks Memorial/Jacquelyn R. Smith Memorial Scholarship (2022)
    - MIE "Student of the Year" Award (2022)
- Christopher Kennedy, Industrial Engineering (2020-21)
    - MIE "Social Impact" Award (2021)
- Karan Shah, Industrial Engineering (2020-21)
- Amanda Batura, Industrial Engineering (2020-21)
- Jaydeep Radadiya, Industrial Engineering (2019 – 2020)
    - SaferSim UTC Excellence in Research Undergraduate Award (2019)
    - Rising Researcher Award (2021)
- Jean-Pierre Charles, Industrial Engineering (2019 – 2020)
- Gabriela Martinez Elmudesi, Industrial Engineering (2019 - 2020)
    - MIE "Student of the Year" (2020)

E. Teaching and Professional Development

- ASEE National Effective Teaching Institute (NETI-3E) – 2020
- Mentor Training Workshop – UMass - 2020
- Map Your Mentor workshop – UMass – 2019

V. SERVICE AND PROFESSIONAL ACTIVITIES

A. Mechanical and Industrial Engineering Department

- Search Committee Member
    - Mechanical Engineering Faculty Member Search Committee (2019)
- Departmental Committees
    - Faculty Advisor – Institute of Industrial and Systems Engineers (UMass Chapter) (2019, 2020, 2021, 2022)
    - Faculty Advisor – Formula SAE (UMass Minutemen Racing Club) (2023)
    - Undergraduate Committee (2021-22)
    - IE Undergraduate Committee (2021-22)
    - Department Promotion Committee (2022-23)
    - Department Graduate Committee (2022-23)

B. College of Engineering

- Dean's Advisory Group (2020 – present)

C. Professional Organizations and Outreach

Leadership roles in Professional/Scientific Organizations:

- Association for the Advancement of Automotive Medicine
    - Chair (2019 - 2023) - Automated Vehicles Special Interest Group (AVSIG)

- Transportation Research Board Technical Activities Standing Committee ACH60 - Vehicle User Education, Training, and Licensing (2010-2013; 2019-present)
  - Paper Coordinator, 2020-2022
- Human Factors and Ergonomics Society
  - Chair (2014-2017), Surface Transport Technical Group,
    - Overall responsibility for the oversight and leadership of the Surface Transportation Technical Group, including outreach, scientific direction, fund-raising, and student involvement. Oversaw selection of Stephanie Binder Young Professional Awardees.
  - Program Chair, Surface Transport Technical Group, Human Factors and Ergonomics Society (2013-1014)
    - Responsible for all scientific sessions; managed 20 session chairs and co-chairs, and 44 speakers; oversaw the selection of the 2014 Best Student Paper Award.
- 12th International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications, Washington DC, 2020
  - Co-Chair, Work-In-Progress Papers Committee
- 8th International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications Ann Arbor, MI, 2016
  - Co-Chair: Publications Committee

Other roles in Professional/Scientific Organizations:

- Partners for Automated Vehicle Education
  - Academic Advisory Council (Member)
- Association for the Advancement of Automotive Medicine
  - Scientific Program Committee (SPC)
- Association for Computing Machinery (ACM)
  - Special Interest Group on Computer-Human Interaction (SIGCHI)
- Human Factors and Ergonomics Society (HFES)
  - Surface Transportation Technical Group
- Institute of Industrial and Systems Engineers (IISE)
- Society of Automotive Engineers International (SAE)
- Transportation Research Board (TRB) Standing Committees
  - ACH50 - Road User Measurement and Evaluation (through 2022)
  - ACH60 - Vehicle User Education, Training, and Licensing (current)
  - Joint Sub-Committee on Human Factors in Road Vehicle Automation (current)
  - Sub-Committee on Young Drivers (current)
- Behavioral Traffic Safety Cooperative Research Program (BTSCRP)
  - Review Panel (2023)

Editorial Boards

- Transportation Research Record
- Journal of Law & Mobility
- Frontiers in Neuroergonomics: Social Neuroergonomic
- Accident Analysis & Prevention: Special Issue on Distraction & Emerging Issues

Ad-hoc Journal Reviewer

- Accident Analysis and Prevention
- Applied Ergonomics
- Ergonomics
- Human Factors
- IEEE Intelligent Transportation Systems Magazine

- Injury Prevention
- Journal of Adolescent Health
- Journal of Applied Ergonomics
- Journal of Intelligent Transportation Systems
- Journal of Safety Research
- Nature Scientific Reports
- Social Development
- Traffic Injury Prevention
- Transportation Research Part C
- Transportation Research Part F
- Transportation Research Record

Expert Panels, Conference workshops, sessions organization, and others:

- Novice Driver and Automation Panel - NHTSA & UNC HSRC
  - Panelist - Jan 2022
- AAA Foundation for Traffic Safety's 2021 Forum: Impact of Vehicle Technologies and Automation on Users
  - Panelist – Sept 2021
- Smart Driving Cars Podcast with Alain Kornhauser
  - Podcast guest – Jan 2021
- Smart Driving Car Summit, Princeton University, 2021
  - Panelist – *The Smart Driving Cars We Can Buy Today*
- 12th International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications, Washington DC, 2020
  - Panelist - *Meet The Experts: Education/Training & AV/ADAS*
- Association for the Advancement of Automotive Medicine Annual Conference, 2020
  - Chair, AVSIG Special Session: How Will Advanced Vehicle Technologies Impact Road Traffic Injuries in the Next Decade?
- Road Safety and Simulation Conference, Iowa City, October 2019,
  - Co-organizer: Workshop on Automated Vehicles - Error Identification & Prediction using State Diagrams and Error Taxonomies.
  - Panelist - Workshop on Human Factors & Infrastructure.
- Automated Vehicle Symposium, San Francisco, CA, July 2017
  - Planning committee: Human Factors Breakout Session
- Transportation Research Board Annual Conference, Washington DC, Jan 2017
  - Planning committee: Workshop - "Acquisition and Maintenance of Driving Skills in the Climate of Driver Support, Driver Assist, and Automation Systems"
- Annual Meeting of the Human Factors and Ergonomics Society, Washington DC, September 2016
  - Chair: Automation and Behavior Measures
- Third Automotive HMI Conference, Ann Arbor, MI, April 2016
  - Moderator: Workshop: Smart HMI for Autonomous Vehicles
- Sixth International Conference on Traffic and Transport Psychology, Brisbane, Australia, August 2016
  - Chair: Symposium: Understanding Human Factors Implications of Automated Vehicles
- Annual Meeting of the Human Factors and Ergonomics Society, Los Angeles, CA, October 2015
  - Chair: Scientific Session: Affordances for Young & Old
- National Workgroup on Effects of Vehicle Technology, AAA Foundation for Traffic Safety, Washington DC, August 2015
  - Planning Committee
- Automated Vehicle Symposium, Ann Arbor, MI, July 2015
  - Planning committee: Workshop - Human factors of Road Vehicle Automation
  - Planning committee: Demonstrations on M-City & Conference Venue

- 8th International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Snowbird, Utah, June 2015
  - Moderator: Technical Session - “Research Methods and Perspectives”
- Society for Advancement of Violence and Injury Research (SAVIR) Conference, New Orleans, Louisiana, March 2015
  - Chair: Symposia - “How do peer passengers influence teenagers' driving behaviors?”
- Transportation Research Board Annual Conference, Washington DC, Jan 2015
  - Planning committee: Scientific session - "Young Drivers & Learning Skills"
  - Planning committee: Workshop - "Simulation and Naturalistic Driving"
- Human Factors and Ergonomics Society Annual Meeting, Chicago, IL, October 2014
  - Overall Program Chair: Surface Transportation Technical Group
  - Co-chair: Session - Cognitive Training and Driving
- Automated Vehicle Symposium, San Francisco, California, July 2014
  - Planning committee: Workshop - Human factors of Road Vehicle Automation
- Transportation Research Board Annual Conference, Washington DC, Jan 2014
  - Chair: Scientific session - "Current Topics in Young Driver Research"
- Transportation Research Board Annual Conference, Washington DC, Jan 2013
  - Co-Chair: Scientific Session - "Physiological measurement of operator state and applications in vehicle engineering and research”