

# Erika E. (Miller) Gallegos

Assistant Professor, Colorado State University

- Department of Systems Engineering
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# **EDUCATION**.

## Ph.D. Civil Engineering, May 2018

-	
University of V	Washington, Seattle, WA
Advisor:	Dr. Linda Ng Boyle
Dissertation:	Behavioral Adaptations of Drivers to Autonomous Systems: Evaluating
	Intermediate and Carryover Effects

## M.S. Civil Engineering, June 2013

University of Washington, Seattle, WA

- Advisor: Dr. Linda Ng Boyle
- *Thesis:* Effects of Roadway on Driver Stress: An On-Road Study Using Physiological Measures

## B.S. Civil Engineering, June 2010

Oregon State University, Corvallis, OR

# **PROFESSIONAL POSITIONS**

#### Assistant Professor, 2018 - present

Department of Systems Engineering, Colorado State University

#### Expert Witness Consultant, 2015 – 2019

#### Graduate Research Assistant, 2011 – 2018

Department of Industrial & Systems Engineering, University of Washington Department of Civil & Environmental Engineering, University of Washington

#### Undergraduate Research Assistant, 2010

Department of Civil & Construction Engineering, Oregon State University

# PUBLICATIONS \_

\* Last name changed to Gallegos from Miller in 2024

#### JOURNAL ARTICLES

- 1. Chellin, M.D., & **Gallegos, E.E.** (in press for April issue). Visualization tool for obsolescence management: Reducing supply chain risk for C5ISR systems. *Defense Acquisition Research Journal, 31*(1), pp 36-61. doi.org/10.22594/dau.23-914.31.01
- Ahmed, J., Robinson, A., & Miller, E.E. (2024). Effectiveness of signs for pedestrian-railroad crossings: Colors, shapes, and messaging strategies. *Journal of Safety Research*. doi.org/10.1016/j.jsr.2024.01.003

- 3. Nickkar, A., Pourfalatoun, S., **Miller, E.E.**, & Lee, Y.J. (2024). Applying the heteroskedastic ordered probit model on injury severity for improved age and gender estimation. *Traffic Injury Prevention*, *25*(2), pp 202-209. doi.org/10.1080/15389588.2023.2286429
- 4. Ahmed, H., & **Miller, E.E.** (2023). Needs analysis and payback models for tractor design based on field data from traditional farmers in Sudan. *World, 4*(4), pp 698-708. doi.org/10.3390/world4040044
- Chellin, M.D., & Miller, E.E. (2023). Frustrated with obsolescence Try changing your mental model. *Defense Acquisition Research Journal*, 30(3), pp 228-249. doi.org/10.22594/dau.23-903.30.03
- 6. Pourfalatoun, S., & **Miller, E.E.** (2023). Effects of COVID-19 pandemic on use and perception of shared e-scooters. *Transportation Research Interdisciplinary Perspectives, 22,* 100925. doi.org/10.1016/j.trip.2023.100925
- Ahmed, J., Ward, N., Otto, J., McMahill, A., & Miller, E.E. (2023). Identifying measures of emotional intelligence and dangerous driving. *Transportation Research Record*, 2678(3), pp 365-375. doi.org/10.1177/03611981231179698
- Ahmed, J., Ward, N., McMahill, A., Otto, J., & Miller, E.E. (2023). Effects of emotional intelligence on dangerous driving: A comparison between commercial and non-commercial drivers. *Transportation Planning and Technology*, 46(6), pp 695-709. doi.org/10.1080/03081060.2023.2228760
- 9. Birch, D.S., **Miller, E.E.**, & Bradley, T.H. (2023). Human reliability analysis using a human factors hazard model. *Journal of System Safety, 58*(2), pp 7-29. doi.org/10.56094/jss.v58i2.251
- Aliebrahimi, S., & Miller, E.E. (2023). Effects of cybersecurity knowledge and situation awareness on cyberattacks on autonomous vehicles. *Transportation Research Part F: Traffic Psychology and Behaviour, 96,* pp 82-91. doi.org/10.1016/j.trf.2023.06.010
- 11. Ahmed, H., & **Miller, E.E.** (2023). Quantifying the economic impact on farmers from agricultural machinery: A case study of farmers in Sudan. *World*, *4*(2), pp 347-359. doi.org/10.3390/world4020022
- 12. Pourfalatoun, S., Ahmed, J., & **Miller, E.E.** (2023). Shared electric scooter users and non-users: Safety, adoption, and risk. *Sustainability*, *15*(11), 9045. doi.org/10.3390/su15119045
- 13. Chellin, M.D., & **Miller, E.E.** (2023). Proactive obsolescence management methods for C5ISR systems: Insights from practitioners. *Defense Acquisition Research Journal, 30*(1), pp 24-44. doi.org/10.22594/dau.21-886.30.01
- Trinko, D., Horesh, N., Porter, E., Dunckley, J., Miller, E., & Bradley, T. (2023). Transportation and electricity systems integration via electric vehicle charging-as-a-service: a review of techno-economic and societal benefits. *Renewable & Sustainable Energy Reviews*, 175, 113180. doi.org/10.1016/j.rser.2023.113180

- 15. Botyarov, M., & **Miller, E.E.** (2022). Partitioning around medoids as a systematic approach to generative design solution space reduction. *Results in Engineering*, 100544. doi.org/10.1016/j.rineng.2022.100544
- Johnson, R.A., Miller, E.E., & Conrad, S. (2022). Technology adoption and acceptance of Urban Air Mobility systems: Identifying public perceptions and integration factors. *The International Journal of Aerospace Psychology*, *32*(4), pp 240-253. doi.org/10.1080/24721840.2022.2100394
- 17. Strle, G., Xing, Y., **Miller, E.E.**, Boyle, L.N., & Sodnik, J. (2021). Take-over time: A Crosscultural study of take-over responses in highly automated driving. *Applied Sciences*, *11*(17), 7959. doi.org/10.3390/app11177959
- Pourfalatoun, S., & Miller, E.E. (2021). User perceptions of automated truck-mounted attenuators: Implications on work zone safety. *Traffic Injury Prevention*, 22(5), pp 413-418. doi.org/10.1080/15389588.2021.1925116
- 19. Botyarov, M., & **Miller, E.** (2021). Evaluating usability of generative design process for human-centered design. *International Journal of Development Research*, *11*(3), pp 45148-45152.
- 20. **Miller, E.E.**, & Boyle, L.N. (2019). Adaptations in attention allocation: Implications for takeover in an automated vehicle. *Transportation Research Part F: Traffic Psychology and Behaviour, 66,* pp 101-110. doi.org/10.1016/j.trf.2019.08.016
- 21. Miller, E.E., & Boyle, L. N. (2018). Behavioral adaptations to lane keeping systems: Effects of exposure and withdrawal. *Human Factors, 61*(1), pp 152-164. doi.org/10.1177/0018720818800538
- 22. **Miller, E.E.**, Boyle, L. N., Jenness, J. W., & Lee, J. D. (2018). Voice control tasks on cognitive workload and driving performance: Implications of modality, difficulty, and duration. *Transportation Research Record, 2672*(37), pp 84-93. doi.org/10.1177/0361198118797483
- Hurwitz, D.S., Miller, E.E., Jannat, M., Boyle, L.N., Brown, S., Abdel-Rahim, A. & Wang, H. (2016). Improving teenage driver perceptions regarding the impact of distracted driving in the pacific northwest. *Journal of Transportation Safety & Security*, 8(2), pp 148-163. doi.org/10.1080/19439962.2014.997329
- 24. **Miller, E.E.**, & Boyle, L.N. (2015). Driver's behavior in road tunnels: Association with driver stress and performance. *Transportation Research Record, 2518*, pp 60-67. doi.org/10.3141/2518-08

# **CONFERENCE PROCEEDINGS AND PRESENTATIONS**

1. Corl, K., & **Gallegos, E.E.** (accepted). A method for human systems integration requirements within model based systems engineering. *To be Presented at the International Council on Systems Engineering (INCOSE) International Symposium.* 

- Sabale, A., & Miller, E.E. (2024). Artemis lunar surface navigation: Potential modern solutions to known ancient challenges. *AIAA SciTech 2024 Forum*. Orlando, FL: Jan 2024. doi.org/10.2514/6.2024-0620
- Ahmed, J., & Miller, E.E. (2023). Effects of traffic and road contextual language on survey design: A comparison of two emotional intelligence scales. *Proceedings of the Human Factors and Ergonomics Society 67th Annual Meeting.* Washington, DC: Oct 2023. doi.org/10.1177/21695067231192554
- 4. Ahmed, J., Ward, N., Otto, J., McMahill, A., & **Miller, E.E.** (2023). Identifying measures of emotional intelligence and dangerous driving. *Presented at the Transportation Research Board Annual Meeting, TRBAM-23-02994*, Washington, DC: Jan 2023.
- 5. O'Connor, E., & **Miller, E.E.** (2022). Root cause analysis techniques Removing the jargon and understanding what works. *Presented at the INCOSE 2022 Western States Regional Conference*, Golden, CO: Sept-Oct 2022.
- 6. Pourfalatoun, S., & **Miller, E. E.** (2022). Effects of COVID-19 pandemic on use and perceptions of shared micro-mobility. *Presented at the Applied Human Factors and Ergonomics,* New York, NY: July 2022.
- 7. Aliebrahimi, S., & **Miller, E. E.** (2022). Evaluating factors that impact situation awareness and takeover responses during cyberattacks on automated vehicles. *Presented at the Applied Human Factors and Ergonomics,* New York, NY: July 2022.
- 8. Johnson, R., & **Miller, E.E.** (2022). Perceptions of emerging urban air mobility systems: Differences between early to laggard adopters of passenger air vehicles. *Presented at the INCOSE International Symposium (IS2022)*, Detroit, MI: June 2022.
- Ahmed, H., & Miller, E.E. (2022). Human-systems integration of agricultural machinery in developing economy countries: Perceptions of adoption. *Proceedings of the INCOSE Human Systems Integration Conference*, pp. 18-28, San Diego, CA: Nov 2021. doi.org/10.1002/iis2.12868
- 10. Kirwin, J., & **Miller, E.E.** (2021). Quantifying the performance of the Astro<sup>™</sup> space suit. *Presented at the American Institute of Aeronautics and Astronautics (AIAA) Rocky Mountain Section Annual Technical Symposium 2021,* Boulder, CO: Sept 2021.
- 11. Pourfalatoun, S., & **Miller, E.E.** (2021). Trust in automated truck-mounted attenuators: A survey on worker perceptions. *Presented at the Transportation Research Board Annual Meeting, TRBAM-21-02603*. Washington, DC: Jan 2021.
- Frison, A.K., Wintersberger, P., Riener, A., Schartmuller, C., Boyle, L.N., Miller, E., & Weigl, K. (2019). In UX we trust: Investigation of aesthetics and usability of driver-vehicle interfaces and their impact on the perception of automated driving. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. Glasgow, UK: May 2019. doi.org/10.1145/3290605.3300374

- 13. Liu, J., **Miller, E.**, & Boyle, L. N. (2019). The relationship between driver performance and driver workload using functional data analysis. *Presented at the American Statistical Association's Joint Statistical Meeting*, Denver, CO: July 2019.
- Miller, E.E., Hwang, S., Cegovnik, T., Boyle, L. N., and Sodnikj J. (2019). Takeover response: differences between US and Slovenia. *Proceedings of the 11th International Conference on Automotive User Interfaces and Interactive Vehicular Applications*, 227–231. Utrecht, NL: Sept 2019. doi.org/10.1145/3349263.3351322
- 15. **Miller, E.E.**, & Boyle, L. N. (2018). Effects of exposure and withdrawal of a lane keeping system. *Presented at the 8th International Conference on Information Society and Technology*. Kopaonik, Serbia: March 2018.
- 16. **Miller, E.E.**, & Boyle, L. N. (2018). Behavioral adaptations to autonomous systems: Evaluating intermediate and carryover effects. *Presented at the Transportation Research Board 97th Annual Meeting*. Washington, DC: Jan 2018.
- 17. **Miller, E.E.**, Boyle, L. N., Jenness, J. W., & Lee, J. D. (2018). The impact of voice control task modality, difficulty, and duration on cognitive workload and driving performance. *Presented at the Transportation Research Board 97th Annual Meeting*. Washington, DC: Jan 2018.
- Miller, E.E., & Boyle, L. N. (2017). Driver adaptation to lane keeping assistance systems: Do drivers become less vigilant? *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*, pp. 1934-1938. Austin, TX: Oct 2017. doi.org/10.1177/1541931213601963
- 19. **Miller, E.E.**, & Boyle, L. N. (2015). Driver's behavior in road tunnels: Association with driver stress and performance. *Presented at the Transportation Research Board 94th Annual Meeting*. Washington, DC: Jan 2015.
- 20. **Miller, E.E.**, & Boyle, L. N. (2014). Standardization of measurement of driving performance: Statistical considerations. *Presented at the Transportation Research Board 93rd Annual Meeting*. Washington, DC: Jan 2014.
- Miller, E.E., & Boyle, L. N. (2013). Variations in road conditions on driver stress: Insights from an on-road study. *Proceedings of the Human Factors and Ergonomics Society 57th Annual Meeting*, pp. 1864-1868. San Diego, CA: Sept-Oct 2013. doi.org/10.1177/1541931213571416

# **TECHNICAL REPORTS AND THESES**

- Miller, E.E., Pourfalatoun, S., Nylen, A., & Weldon. T. (2021). Evaluating the humanautomated maintenance vehicle interaction for improved safety and facilitating long-term trust (Report No. CDOT-2021-05). Denver, CO: Colorado Department of Transportation (CDOT). Available from: https://www.codot.gov/programs/research/pdfs/2021-researchreports/2021-05.pdf
- Jenness, J. W., Boyle, L. N., Lee, J. D., Miller, E.E., Yahoodik, S., Huey, R., Lee, J. Y., Benedick, A. K., & Petraglia, E. (2020). *In-vehicle voice control interface evaluation: Preliminary driver workload and risk analysis (Report No. DOT HS 812 813)*. Washington, DC: National Highway

Traffic Safety Administration (NHTSA). Available from: https://rosap.ntl.bts.gov/view/dot/43640

- 3. **Miller, E.E.** (2018). *Behavioral adaptations of drivers to autonomous systems: Evaluating intermediate and carryover effects.* Doctoral dissertation, University of Washington. Available from: https://digital.lib.washington.edu/researchworks/handle/1773/42254
- Boyle, L., Cordahi, G., Grabenstein, K., Madi, M., Miller, E., & Silberman, P. (2014). *Effectiveness of safety and public service announcement (PSA) messages on dynamic message signs (DMS) (Report No. FHWA-HOP-14-015).* Washington, DC: Federal Highway Administration (FHWA). Available from: https://ops.fhwa.dot.gov/publications/fhwahop14015/fhwahop14015.pdf
- Boyle, L. N., Lee, J. D., Peng, Y., Ghazizadeh, M., Wu, Y., Miller, E., & Jenness, J. (2013). Text reading and text input assessment in support of the NHTSA visual-manual driver distraction guidelines (Report No. DOT HS 811 820). Washington, DC: National Highway Traffic Safety Administration (NHTSA). Available from: https://www.nhtsa.gov/sites/nhtsa.gov/files/811820.pdf
- Miller, E.E. (2013). Effects of roadway on driver stress: An on-road study using physiological measures. Master's thesis, University of Washington. Available from: https://digital.lib.washington.edu/researchworks/handle/1773/23592

## OTHER PRESENTATIONS AND PUBLICATIONS

- 1. Chellin, M., & **Gallegos, E.E.** (2024). Obsolescence visualization tool. *Zenodo*. doi/10.5281/zenodo.10606850
- 2. Birch, D., Narsinghani, J., Herber, D., Bradley, T., & **Miller, E.** (2022). Human factors hazard model. *Zenodo*. doi.org/10.5281/zenodo.7352422
- 3. Cybersecurity and Human Factors in Autonomous Vehicles, Panel Speaker, ErgoX Symposium, October 15, 2022.
- "CSU Systems Engineering research assisted state's propane customers through COVID-19." In CSU Source, June 9, 2020. https://engr.source.colostate.edu/csu-systems-researchassisted-states-propane-customers-through-covid-19/
- 5. Pathways to Engineering: Personal and Professional, Panel Speaker, CSU Workshop for Undergraduate Women in Engineering, February 15, 2020 & February 19, 2022.
- 6. Intelligent Mobility Panel Speaker, Parametrix 2nd Future of the Profession Conference, November 19, 2019.
- 7. Transitioning Through Academia: Graduate Students, Postdocs, and Tenure-Track Faculty Panel Speaker, Human Factors and Ergonomics Society Annual Meeting, October 28, 2019.
- 8. Industrial & Systems Engineering Seminar Speaker, University of Washington, April 17, 2018.

9. PacTrans-Tongji PhD Symposium on Transportation Science and Technology, Seattle, WA, Longitudinal Effects of Advanced Driver Assistance Systems on Driver Behavior, August 2, 2016.

FUNDED GRANTS	
FUNDED PROJECTS AS PI (total \$834,801)	
PENDING: ADAS for Bustang Intercity and Regional Bus Transit: Fuel Economy Impacts, Colorado Department of Transportation, <b>\$325,000</b> (total award \$1,253,952 from US Federal Transit Administration)	2024 – 2026
AMT Pooled Fund 2023 Annual Meeting Coordination, Colorado Department of Transportation, \$40,658	2023
Driver Identification Using Models Developed from Onboard Data Acquisition Devices, Oak Ridge National Laboratory, <b>\$150,000</b>	2023 – 2024
Autonomous Maintenance Technology Pool Fund Management 2, Colorado Department of Transportation, <b>\$78,300</b>	2021 – 2024
Effectiveness of Mitigation Methods and Signage in Reducing Railway Trespassing Events, Mountain-Plains Consortium (USDOT UTC), <b>\$15,000</b>	2022 – 2023
AV Program Support and ATMA Data Acquisition, Colorado Department of Transportation, <b>\$98,850</b>	2021 – 2023
Literature Review on Autonomous Delivery: Drone (Air) and Robots (Ground), Colorado Department of Transportation, <b>\$7,499</b>	2022
Literature Review on Cognitive Impairment of Older Drivers, Colorado Department of Transportation, <b>\$7,499</b>	2022
Literature Review in Support of the State Transportation Funding Proposal's Online Retail Order Fee, Colorado Department of Transportation, <b>\$11,999</b>	2021
Evaluating the Human-Automated Maintenance Vehicle Interaction for Improved Safety and Facilitating Long-Term Trust, Colorado Department of Transportation, <b>\$74,997</b>	2019 – 2021
Literature Review in Support of SB19-239, Colorado Department of Transportation, <b>\$24,999</b>	2019
FUNDED PROJECTS AS CO-PI (total \$3,789,757)	
PENDING: Resuspension Emissions based on Aerodynamic Characteristics (ReACh), Center for Transformative Infrastructure Preservation and Sustainability (USDOT UTC), <b>\$60,000</b>	2024 – 2026
Colorado's Multi-Network Resilience Plan for Electrified Transportation, Department of Energy Joint Office of Energy and Transportation, <b>\$1,337,218</b>	2024 – 2027

Systematic, Anthro-centric Packages for Protecting Households in Realistic Exposure Situations (SAPPHIRES), National Science Foundation (NSF) LEAP HI, <b>\$1,999,998</b>	2022 – 2026
ZEV Manufacturing and Engineering Workforce Development, Colorado Department of Transportation, <b>\$100,000</b>	2023 – 2024
Agent-Based, Bottom-Up Medium- and Heavy-Duty Electric Vehicle Economics, Operation, Charging, and Adoption, Department of Energy Vehicle Technologies Office, <b>\$292,541</b>	2021 – 2024

# TEACHING EXPERIENCE

At CSU, I developed two new graduate-level courses, one new upper-level undergraduate course, and one new Certificate in Human Systems Integration.

# COLORADO STATE UNIVERSITY (as instructor)

Year	Semester	Course	Enrollment
2024	Spring	SYSE 534: Human Systems Integration	36
2024	Spring	ENGR 478: Applied Engineering Data Analytics	9
2023	Summer	SYSE 541: Engineering Data Design & Visualization	35
2023	Spring	SYSE 534: Human Systems Integration	27
2023	Spring	ENGR 531: Engineering Risk Analysis	30
2022	Fall	SYSE 541: Engineering Data Design & Visualization	20
2022	Spring	ENGR 380a4: Engineering Data Analytics	6
2022	Spring	SYSE 534: Human Systems Integration	29
2021	Fall	ENGR 580a5: Systems Data Lifecycle & Visualization	18
2021	Spring	SYSE 534: Human Systems Integration	34
2020	Fall	ENGR 531: Engineering Risk Analysis	35
2020	Fall	ENGR 580a5: Systems Data Lifecycle & Visualization	12
2020	Spring	ENGR 581a4: Human Systems Integration	35
2019	Fall	ENGR 580a5: Systems Data Lifecycle & Visualization	28
2019	Summer	ENGR 531: Engineering Risk Analysis	59
2019	Spring	ENGR 581a4: Human Systems Integration	21

## **UNIVERSITY OF WASHINGTON (as instructor)**

Year	Semester	Course	Enrollment
2017	Summer	INDE 315: Probability and Statistics for Engineers	40
2016	Summer	INDE 315: Probability and Statistics for Engineers	53
2015	Spring	INDE 351: Human Factors in Engineering Design	59

## **GUEST INSTRUCTOR (as guest lecturer)**

Year	Semester	Course
2024 2024	Spring Spring	CIVE 303: Infrastructure and Transportation Systems (CS ENGR 501: Foundations of Systems Engineering (CSU)
2024	Spring	ENGR 501: Foundations of Systems Engineering (CSU)

Spring	ENGR 501: Foundations of Systems Engineering (CSU)
Spring	ENGR 501: Foundations of Systems Engineering (CSU)
Fall	ENGR 501: Foundations of Systems Engineering (CSU)
Spring	CIVE 303: Infrastructure and Transportation Systems (CSU)
Spring	CEE 327: Transportation Engineering (UW)
Winter	CEE 327: Transportation Engineering (UW)
Winter	CEE 327: Transportation Engineering (UW)
Spring	CEE 327: Transportation Engineering (UW)
Spring	CEE 327: Transportation Engineering (UW)
	Spring Spring Fall Spring Spring Winter Winter Spring Spring

# STUDENTS ADVISED \_\_\_\_

#### **POST-DOCTORAL FELLOWS**

1. Dr. Jubaer Ahmed, 2022 – 2023

## **GRADUATE STUDENTS ADVISED**

#### Ph.D. Advisees (N = 20)

Angie Robinson, Anima Sabale, Christopher Pastor, Dan Perreault, Eric Stewart, Flavio Ortolano, John Phillips, Joshua Hicks, Lauren Jurek, Marija Krunic, Maryam Gracias, Panteha Alipour, Peter Coronado, Ricole Johnson, Robert Baker, Samir Albaroudi, Scott Ledgerwood, Shawnette Adams, Shiva Pourfalatoun, Susan Archer

#### D.Eng. Advisees (N = 3)

Kenny Corl, Mark Rogers, Paul Jenkins

#### M.S. Advisees (N = 1)

**Trevor Lanigan** 

#### M.E. Advisees (N = 1)

Kaelin Glover

#### Graduated (N = 10)

- 1. Michael Botyarov, PhD 2023 Dissertation – Optimizing Designer Cognition Relative to Generative Design Methods
- Matthew Chellin, PhD 2023
   Dissertation Techniques in Reactive to Proactive Obsolescence Management for C5ISR Systems
- 3. James Copenhaver, MS 2023 *Project – A Novel Approach to Rocket Engine Alignment*
- 4. Tim Kemp, MS 2023 Project – A Systems Engineering Approach to Transportation Demand Management (TDM) Strategies

- 5. Hamza Ahmed, PhD 2022 Dissertation – Human Systems Integration of Agricultural Machinery in Developing Economy Countries: Sudan as a Case Study
- 6. Somayeh Aliebrahimi, MS 2022 Thesis – Evaluating Factors that Impact Situation Awareness and Takeover Responses During Cyberattacks on Automated Vehicles
- Alston Banahan, MS 2022
   Project The Use of Generators During Power Outages: Designing a Better Interface for Elderly & Physically Impaired Users
- 8. Jaciel Espinosa-Severo, MS 2022 Project – Research Methods: Ubiquity of Autonomous Electric Vehicles
- 9. James Kirwin, MS 2021 Project – Quantifying the Performance of the Astro Space Suit
- 10. Brice Kipps, MS 2021 Project – Stall Warning and Prevention System: A System Designed to Precurse Stall Conditions and Prevent Them

# UNDERGRADUATE STUDENTS ADVISED

- 1. Chandler Young, Mechanical Engineering, Summer 2023
- 2. Tyler Archer, Mechanical Engineering, Spring 2023
- 3. Lesley-Ann Knee, Electrical & Computer Engineering, Fall 2022

# THESIS COMMITTEE MEMBER

# Ph.D. (N = 47)

Amy Eddy (2023), Andrew Miller (2022), Anthony Garrison, Anthony Roebuck, Barry Hawkey, Bash Bistrow, Bertina Nguyen, Braden Limb, Cailin Simpson (2024), Chris Clark, Christian Abney, Christine Lozano, D'Adrin Worrell, David Weissman, Dustin Birch (2021), Eric Enos, Erin Gilmore, Frank Nguyen, Gregory Suchanek, Harshwardhan Ketkale (2023), Ibibia Altraide, Ibtasam Arshad, James Wheaton, Jason Lantz, Jason Orr, Jennifer Huwe, Jennifer Zwicke, Jim Scheibmeir (2021), Joshua Oluwatumise, Kenly Maldonado (2023), Kulbir Sandhu, Monzoor Murshed, Megan Younes, Michael Cabrera (2023), Moe Huss (2023), Mohamed Rajraji, Orville Ashley, Rebecca Cook, Ricardo Castillo, Ricardo Saez, Rudy Pirani (2022), Ryan Agte, Tami Katz (2001), Timi Oguntola, Vinja Vlajnic (2022), Vinay Mohan, Ziluo Xiong

# D.Eng. (N = 4)

Amanda Normand (2023), Art Villanueva (2023), Heidi Perry, Jose Vazquez

# M.S. (N = 3)

Brandon Moore, Ishita Kekare (2020), Sean Bumgarner

# HONORS & AWARDS \_\_\_\_\_

- 2018 **Best Doctoral Student Research Award**. Safety Data, Analysis and Evaluation (ANB20) and Statistical Methods (ABJ80) Committees. TRB Annual Meeting.
- 2018 Travel Award. University of Ljubljana Department of Electrical Engineering.
- 2017 Best Student Paper Award. HFES Surface Transportation Technical Group. \$500
- 2017 **Travel Award**. University of Oldenburg OFFIS Institute for Information Technology.
- 2010 **Member of the Year**. Oregon State University Institute of Transportation Engineers (ITE) Chapter.

#### STUDENT AWARDS (\* denotes graduate student advisee)

- 2022 Scott Ledgerwood\*. DARPA Riser. DARPA Forward Conference.
- 2022 James Kirwin\*. Outstanding Project Award. CSU Systems Engineering Department.
- 2021 Marija Krunic\*. VPR Graduate Fellow. "Keeping Public Restrooms COVID-19 Free: Cell Phone Sanitizer and Charger." \$4,000
- 2020 Marija Krunic\*. Walter Scott, Jr College of Engineering Excellence in Research. CSU GradShow. \$250

# EXPERT WITNESS EXPERIENCE

Patent Dispute
Trade Secret
Consumer Protection
Consumer Protection
Consumer Protection
Patent Dispute
Trade Secret
Trade Secret
Patent Dispute
Patent Dispute
Trade Secret

#### PROFESSIONAL SERVICE

#### **PROFESSIONAL MEMBERSHIPS**

Human Factors and Ergonomics Society (HFES) Transportation Research Board (TRB), Member of ACH30 American Statistical Association (ASA)

## EDITORIAL AND CONFERENCE SERVICE

Program Chair: Transportation Research Board ACH30 Committee (2023 - present)

Publication Co-Chair: AutoUI (2014)

Publication Committee: AutoUI (2017-2019)

*Peer Reviewer*: Accident Analysis & Prevention; Energies; Human Factors; IEEE Transactions on Intelligent Transportation Systems; International Journal of Transportation Science and Technology; Journal of Cognitive Engineering and Decision Making; Journal of Intelligent Transportation Systems: Technology, Planning, and Operations; Journal of Transportation Engineering, Part A: Systems; Proceedings of Automotive User Interfaces; Proceedings of the Human Factors and Ergonomics Society; Psychology Research and Behavior Management; Transport Policy; Transportation Research Board Annual Meeting; Transportation Research Part F: Traffic Psychology and Behaviour; Transportation Research Record

Workshop Assistant: HFES Annual Meeting "Data Exploration and Visualization" (2013)

#### **GRANT REVIEWING**

Panel Reviewer: NSF (2021)

Technical Reviewer: University of California Institute of Transportation Studies (2023)

#### **UNIVERSITY SERVICE**

DEI Chair: Dept of Sys Engr Diversity, Equity, and Inclusion Committee (2022 – present)

DEI Member: Dept of Sys Engr Diversity, Equity, and Inclusion Committee (2021 – present)

Search Committee Chair: Dept Sys Engr Tenure Track Faculty Position (2023/24, 2022/23); PPM Adjunct Instructor (2022); Postdoctoral Fellow (2022)

*Search Committee Member:* Dean of College of Engineering (2022/23); Tenure Track Faculty Position (2021/22, 2020/21, 2019/20), Postdoctoral Fellow (2021)

*Certificate Development:* Led the creation of a new certificate program in "Human Systems Integration" in the Systems Engineering Department (2023)

*College of Engineering Representative:* Council for Gender Equity on the Faculty (2019 – 2021)

# PUBLIC OUTREACH AND MENTORSHIP

*K-12 Mentorship:* O'Dea Elementary 5<sup>th</sup> Grade Student Research Project (2022); Colorado C3E Clean Energy High School Student Project (2019); Engineering Discovery Days at University of Washington (2012 – 2018)

Undergraduate and Graduate Mentorship: TRB Career Fair Resume Critique Booth (2020)

*Teenage Driver Education on Distracted Driving Instructor:* Eastlake High School (May 2013); Skyline High School (April 2013); Roosevelt High School (April 2013); Garfield High School (April 2013)

#### **PROFESSIONAL TRAINING**

*Faculty Institute for Inclusive Excellence Fellow:* 2023/4 Cohort, Project Topic "Incorporating Generative AI as an Equitable and Inclusive Tool in the Classroom"

*Teaching Training:* TILT Best Practices in Teaching: Student Motivation (March 2021); TILT Incorporating Best Practices in Remote and Hybrid Teaching (January 2021); TILT Best Practices in Teaching: Create Assignments (January 2021); TILT Best Practices: Theoretical Foundations of Online Courses (September 2018); TILT Online Course Development, Are You Ready (August 2018); TILT Canvas Create Eye Catching Courses with Design Tools (August 2018)

*Diversity, Equity, and Inclusion Training:* WSCOE Workshop on Improving Workplace Climate (March 2023); WSCOE Workshop on Equitable Search and Hiring Practices (February 2023); Creating Inclusive Excellence Program: Uncovering Bias (June 2022); Creating Inclusive Excellence Program: DEI Foundations (June 2022); Pride Resource Center: Safe Zone Training (December 2021); Office of Equal Opportunity: How to Consider Diversity in the Search Progress (September 2021); Office of Equal Opportunity: Search Chair (September 2021)

# GOOGLE SCHOLAR PROFILE

Profile URL: https://scholar.google.com/citations?user=ttkFZJgAAAAJ&hl=en

Total	Since 2019	Definition
371	342	Number of citations to all publications
10	9	Largest h such that h publications have at least h citations
12	9	Number of publications with at least 10 citations
	<b>Total</b> 371 10 12	Total         Since 2019           371         342           10         9           12         9

Data obtained from Google Scholar on March 14, 2024