

NICHOLE L. MORRIS, PH.D.

NLMORRIS@UMN.EDU

EDUCATION

- Ph.D., Human Factors Psychology, Wichita State University, Wichita, KS, 2011
- M.A., Psychology, Wichita State University, Wichita, KS, 2009
- B.S., Psychology, Wichita State University, Wichita, KS, 2006

PROFESSIONAL APPOINTMENTS

Department Mechanical Engineering, University of Minnesota (UMN)

Research Associate Professor (2022 – Present)

Human Factors Safety Laboratory in Department Mechanical Engineering, University of Minnesota

Director (2017 – Present); **Research Associate** (2011-2017)

Infrastructure and Environmental Systems, University of North Carolina at Charlotte

Associate Graduate Faculty (2020 – Present)

Human Factors and Ergonomics, College of Design, University of Minnesota

Graduate Faculty (2020 – Present)

Adjunct Assistant Professor, University of Minnesota

Industrial & Systems Engineering (2017 – Present); Public Health, (2016 – Present)

HONORS AND AWARDS FOR RESEARCH

Robert C. Johns Research Partnership Award, Center for Transportation Studies, UMN, 2023

Human Factors Psychology Alumni of the Year, Wichita State University, 2022

Best Practices in Traffic Records Award, International Forum of Traffic Record and Highway Information Systems, 2014 and 2020

Innovative Transportation Solutions Award, Women in Transportation Minnesota, 2019

SELECTED GRANTS AND CONTRACTS AS PI OR CO-I

Integrated Networking, Edge System and AI Support for Resilient and Safety-Critical Tele-Operations of Autonomous Vehicles

Support Period: October 2023 – September 2027

Assessment of Pedestrian Safety and Driver Behavior Near an Automated Vehicle

Support Period: February 2022 – January 2024

Smart Tracking Systems for Safe and Smooth Interactions Between Scooters and Road Vehicles

Support Period: January 2021 – December 2024

Improved Synthetic Training Environment for Assessment of Medics (ISTEAM)

Support Period: December 2020 – June 2025

Validating an Objective Roadside Tool to Assess Driver Fatigue

Support Period: August 2018 – October 2019

Evaluation of Sustained Enforcement, Education, and Engineering Measures on Pedestrian Crossings

Support Period: June 2017– June 2019

Human Factors Investigation for HAC Reductions at Children’s of Minnesota.

Support Period: November 2016 – June 2017

In-Vehicle Work Zone Messages

Support Period: July 2015 – June 2017

Computerized Crash Reports Usability and Design Investigation
Support Period: January 2014 – June 2016

SERVICE

Mechanical Engineering Ambassadors Program (3rd-5th grade Engineering Outreach Program),
Department of Mechanical Engineering, UMN, Co-Founder and Advisor, 2020-Present
Transportation Research Board Standing Committee on Operator Education and Regulation – ANB30:
Full Member, 2016-Present
Transportation Research Board Standing Committee on Human Factors of Vehicles – AND10: Research
Needs Coordinator and Full Member, 2019-Present
Design of Medical Devices Conference, Committee & Staff; 2023 Session Organizer, 2023

SELECTED PUBLICATIONS

- Morris, N.L.**, Schwieters, K.R., Tian, D., Craig, C.M. (in press). Evaluation of driver navigational errors and acceptance of a simulated J-Turn intersection. *Accident Analysis & Prevention*.
- Craig, C.M., **Morris, N.L.**, Drahos, B., & Van Houten, R. (2023). The Sustained and Generalized Effects of Multifaceted Treatment on Unsignalized Pedestrian Crossings. *Journal of Transport & Health*, 31, 101648
- Craig, C. M., Tian, D., & **Morris, N. L.** (2023). Task-relevant smartphone messages within work zones: A driving simulation study. *Human Factors*, 1-12, DOI:10.1177/00187208231167641
- Morris, N.L.**, Tian, D., Craig, C.M., & Libby, D.A. (2022). A Multistate Pilot Study Evaluating the Short-term Efficacy of a Smartphone-based Older Driver Support System on Modifying Risky Driving Behavior. *Transportation Research Record*, 2676(6), 207-216. doi:10.1177/03611981221074363
- Katariya, V., Baharani, M., **Morris, N.L.**, Shoghli, O., & Tabkhi, H. (2022). Deep track: Lightweight deep learning for vehicle trajectory prediction in highways. *IEEE Transactions on Intelligent Transportation Systems*, 0, 1-10. doi:10.1109/TITS.2022.3172015
- Tian, D., Gerberich, S.G., **Morris, N.L.**, Kim, H., Ryan, A.D., Erickson, D.J., & Easterlund, P. A. (2021). Design and evaluation of a rural intersection conflict warning system and alternative designs among various driver age groups. *Accident Analysis & Prevention*, 162, 106388.
- VanHouten, R., **Morris, N. L.**, Craig, C., Dixon, D., & Hochmuth, J. (2021). Changing driver yielding behavior on a city-wide basis. *Journal of Organizational Behavior Management*, 1-24.
- Morris, N.**, Craig, C., & Mirman, J.H. (2021). Tools for transport: Driven to learn with connected vehicles. *Topics in Cognitive Science*, 13(4), 708-727. <https://doi.org/10.1111/tops.12565>
- Morris, N. L.**, Craig, C. M., Achtemeier, J. D., Easterlund, P. (2021). *Simulators*. In P. Garder (Ed.), *International Encyclopedia of Transportation*, Vol 7. (pp. 13). Amsterdam, Elsevier Ltd.
- Craig, C. M., **Morris, N. L.**, Achtemeier, J. D., & Schwieters, K. R. (2021). Auditory alerts and safety with simulated bicycles and motor vehicles. *Transportation research record*, 2675(9), 408-416.
- Achtemeier, J.D., Craig, C.M., **Morris, N.L.**, & Davis, B. (2020). Sound Localization Performance in a Full-Chassis Driving Simulator. *Ergonomics*, 63(5), 538-547, DOI: 10.1080/00140139.2020.1740334
- Morris, N. L.**, Craig, C. M., & Van Houten, R. (2020). Effective interventions to reduce multiple-threat conflicts and improve pedestrian safety. *Transportation research record*, 2674(5), 149-159.
- Craig, C. M., **Morris, N. L.**, Van Houten, R., & Mayou, D. (2019). Pedestrian safety and driver yielding near public transit stops. *Transportation Research Record*, 2673(1), 514-523. <https://doi.org/10.1177/0361198118822313>
- Peterson, C., Douma, F., & **Morris, N. L.** (2017). Addressing key concerns regarding automated speed enforcement via interactive survey. *Transportation Research Record*, 2660, 66-73. <https://doi.org/10.3141/2660-09>