BRADLEY DRAHOS

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Education

UNIVERSITY OF MINNESOTA TWIN CITIES May 2019
Bachelor of Science in Mechanical Engineering – College of Science and Engineering

UNIVERSITY OF MINNESOTA TWIN CITIES Expected 2026
Master of Science in Human Factors and Ergonomics – College of Design

Professional Appointments

ASSISTANT SCIENTIST – University of Minnesota – Minneapolis, MN January 2019 – Present
ENGINEERING CO-OP – Daikin Applied Americas – Plymouth, MN January 2017 – August 2018
UNDERGRADUATE TEACHING ASSISTANT – University of Minnesota – Minneapolis, MN July 2015 – December 2015

Selected Grants and Contracts as Key Staff or Research Personnel

INTEGRATED NETWORKING, EDGE SYSTEM AND AI SUPPORT FOR RESILIENT AND SAFETY-CRITICAL TELE-OPERATIONS OFAUTONOMOUS VEHICLES
Support Period: October 2023 – September 2027

HUMAN-CENTERED TESTING OF A REAR-FACING DISPLAY TO REDUCE VEHICLE COLLISIONS WITH SNOWPLOWS
Support Period: May 2023 – August 2025

IMPROVED SYNTHETIC TRAINING ENVIRONMENT FOR ASSESSMENT OF MEDICS (I-STEAM): COMPETENCY THROUGH OBJECTIVE VIDEO ANALYSIS
Support Period: December 2020 – December 2024

ASSESSMENT OF PEDESTRIAN SAFETY AND DRIVER BEHAVIOR NEAR AUTOMATED VEHICLES
Support Period: February 2022 – January 2024

USER-CENTERED SMART TRAFFIC SIGN DEVELOPMENT STUDY
Support Period: May 2022 – June 2023

PEDESTRIAN ENGINEERING AND ENFORCEMENT AT SIGNALIZED INTERSECTIONS
Support Period: January 2021 – March 2023

TISSUE CHARACTERIZATION IN-VIVO TO EX-SITU
Support Period: September 2019 – September 2022

REDUCING PANCREATIC LEAKAGE POST WHIPPLE PROCEDURE
Support Period: January 2019 – May 2019

Selected Conference Attendance/Presentations

APPLIED HUMAN FACTORS AND ERGONOMICS CONFERENCE ON HUMAN FACTORS IN DESIGN 2023
HFES ANNUAL INTERNATIONAL CONFERENCE 2023
INTERNATIONAL SYMPOSIUM ON HUMAN FACTORS IN HEALTHCARE CONFERENCE 2023
AMERICAN PSYCHOLOGICAL ASSOCIATION (APA) CONFERENCE 2023
DESIGN OF MEDICAL DEVICES CONFERENCE 2020, 2022, 2023
CENTER FOR TRANSPORTATION STUDIES (CTS) CONFERENCE 2023
ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES (AMSUS) CONFERENCE 2023
TRANSPORTATION RESEARCH BOARD (TRB) ANNUAL MEETING 2022
MILITARY HEALTH SYSTEM RESEARCH SYMPOSIUM (MHSRS) 2022

Selected Presentations

Drahos, B. A., Morris, N. L. (Upcoming 2023). Design, Development, and Testing of a User-centered Smart Traffic Sign for Traffic Control Near work Zones. Presentation at the Safety of Vulnerable Road Users session at the 2023 CTS Transportation Research Conference, Minneapolis MN.

Morris, N. L., Craig, C. M., Schwieters K. R., Mabry, M., **Drahos, B. A**., Floersch, E., Kessler, W. (2023). Limited Training in Undergarment and Clothing Removal Techniques to Expose Wounds in Combat Care. Paper presentation at the Applied Human Factors and Ergonomics Conference on Human Factors in Design, Engineering, and Computing Hawaii Edition, Honolulu, HI

Schwieters, K. R, **Drahos, B. A.**, Craig, C. M., Kessler, W., Mabry, M., Norfleet, J. F., Mazzeo, M.V., & Morris, N. L. (2023). Effect of Patient Gender and Undressing Method on Partial and Complete Chest Exposure in a Combat Care Scenario. Presentation at the Combat Medicine and First Responder Training session at the Design of Medical Devices Conference, Minneapolis, MN.

Drahos, B., & Lye, M. (2022) Objective Methods to Evaluate Combat Medic Training: Can Non-Experts Evaluate Tourniquets? Can Experts. Speaker in the Combat Medicine and First Responder Training with AI at the Design of Medical Devices Conference, Minneapolis, MN.

Craig, C. M., Morris, N. L., Van Houten, R., & **Drahos, B. A.** (2022) The Sustained and Generalized Effects of Enforcement, Education, and Engineering Treatment on Unsignalized Pedestrian Crossings. TRBAM-22-03316. Poster presentation at the Transportation Research Board 101st Annual Meeting in Washington, D.C.

Selected Publications

Craig, C. M., **Drahos, B. A.**, Tian, D., Morris, N. L. (2023). Comparative Analysis of Driver Overtaking Behavior Near Low-Speed Automated Vehicles and Human-Driven Vehicles. *Submitted to IEEE Intelligent Transportation Systems as a revise and resubmit request.*

Morris, N. L., Rajamani, R., **Drahos, B. A.**, Zhenming, X., Alexander, L., Kessler, W. (2023). *User-centered Smart Traffic Sign Development Study* (MN 2023-26). Minnesota Department of Transportation, St. Paul, MN, Retrieved from: https://hdl.handle.net/20.500.14153/mndot.14498

Morris, N. L., Craig, C. M., Schwieters K. R., Mabry, M., **Drahos, B. A.**, Floersch, E., Kessler, W. (2023). Limited Training in Undergarment and Clothing Removal Techniques to Expose Wounds in Combat Care.

Malik, F. A., **Drahos, B. A.**, Safdari, A.M., Mazzeo, M. V., Norfleet, J. E., Sweet, R. M, & Kowalewski, T. M., (2023). Variability of Tissue Mechanical Response in Sus Domesticus Porcine Models from in vivo to ex vivo Conditions. PLoS ONE 18(5): e0268608. https://doi.org/10.1371/journal.pone.0268608

Morris, N.L., Craig, C.M., **Drahos, B.**, Tian, D, Van Houten, R.H., Mabry, M., Kessler, W. (2023). *Multi-city study of an engineering and outreach program to increase driver yielding at signalized and unsignalized crosswalks* (MN 2023-11). Minnesota Department of Transportation, St. Paul, MN, Retrieved from: https://hdl.handle.net/20.500.14153/mndot.5218.

Craig, C. M., **Drahos, B. A.**, Morris, N. L, Van Houten, R. (2023). The sustained and generalized effects of multifaceted treatment on unsignalized pedestrian crossings. *Journal of Transport and Health*, 31, Article 101648. https://doi.org/10.1016/j.jth.2023.101648

Craig, C.M**.,** Schwieters, K.R., **Drahos, B**., & Morris, N.L. (2022). A pilot study on the role of experience and patient gender on MARCH treatment sequence*. Military Medicine*, Volume 188, Issue 7-8, July/August 2023, Pages e2041–e2048, https://doi.org/10.1093/milmed/usac383

Craig, C. M., **Drahos, B.**, Schwieters, K. R., Morris, N. L., Lye, M., Kowalewski, T. M., Norfleet, J. E., & Mazzeo, M. V. (2022). Evaluating gender differences in treatment of simulated gunshot wounds using a female retrofit. Frontiers in Biomedical Devices: 2022 Design of Medical Devices Conference, 1-6. Proceedings of the 2022 Design of Medical Devices Conference. https://doi.org/10.1115/DMD2022-1018

Drahos, B., Safdari, A., Malik, F., Smith, R., Kubala, M., Norfleet, J., Parsey, C., Goodwin, S., & Kowalewski, T. (2020). Design of a Handheld Tissue Grasping Device to Measure Tissue Mechanical Properties in-vivo or in a Laboratory Setting. BIOMED - 2020 Design of Medical Devices Conference. https://doi.org/10.1115/DMD2020-9089

Professional Activities

STUDENT MEMBER, HUMAN FACTORS AND ERGONOMICS SOCIETY	2023 – Present
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)	2016 – Present
STUDENT MEMBER, AMNERICAN PSYCHOLOGIAL ASSOCIATION ENGINEERS (APA)	2022 – 2023