

## Shannon C. Roberts

### Professional Preparation

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|--|----------------------------------|
| Massachusetts Institute of Technology (MIT), Cambridge, MA | Mechanical Engineering BS, 2009  |
| University of Wisconsin – Madison, Madison, WI             | Industrial Engineering MS, 2011  |
| University of Wisconsin – Madison, Madison, WI             | Industrial Engineering PhD, 2014 |

### Appointments

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|---|--------------------------|
| University of Massachusetts – Amherst, Mechanical and Industrial Engineering Department |                          |
| Assistant Professor   | September 2016 – present |

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|--|---------------------------|
| MIT Lincoln Laboratory, Cyber Analytics and Decision Systems Group |                           |
| Technical Staff  | August 2014 – August 2016 |

### Publications (closely related)

Lee, J., Roberts, S. C., Reimer, B., & Mehler, B. (2017). Does Order Matter? Investigating the Effect of Sequence on Glance Duration during On-road Driving. *PLOS ONE*, 12(2).

Roberts, S. C., Horrey, W. J., & Liang, Y. (2016). Measurement of driver calibration and the impact of feedback on drivers' estimates of performance. *Accident Analysis & Prevention*, 88, 150-158.

Roberts, S. C., Ghazizadeh, M., & Lee, J. D. (2012). Warn me now or inform me later: Drivers' acceptance of real-time and post-drive mitigation systems. *International Journal of Human-Computer Studies*, 70(12), 967-979.

Lee, J. D., Roberts, S. C., Hoffman, J. D., & Angell, L. S. (2012). Scrolling and Driving: How an MP3 Player and Its Aftermarket Controller Affect Driving Performance and Visual Behavior. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 54(2), 250-263.

Roberts, S. C., Mehler, B., Orszulak, J., Reimer, B., Glass, J., & Coughlin, J. (2011). An Evaluation of Age, Gender, and Technology Experience in User Performance and Impressions of a Multimodal Human-Machine Interface. In T. Doolen & E. Van Aken (Eds.), *Proceedings of the 2011 Industrial Engineering Research Conference*. Reno, NV.

### Publications (other)

Roberts, S. C., Horrey, W. J., & Liang, Y. (2012). *Effect of performance feedback (or lack thereof) on driver calibration*. Paper presented at the Proceedings of the 4th International Conference on Automotive User Interfaces and Interactive Vehicular Applications, Portsmouth, New Hampshire. (Received 2<sup>nd</sup> place in Intel Outstanding Student Paper Award).

Gruenstein, A., Orszulak, J., Liu, S., Roberts, S. C., Zabel, J., Reimer, B., et al. (2009). City Browser: Developing a conversational HMI. In *Proceedings of the 27th international conference extended abstracts on Human factors in computing systems* (pp. 4291-4296). Boston, MA: ACM Press.

### Synergistic Activities

Mentoring Activities – Dr. Roberts is a thesis advisor to graduate students majoring in Industrial Engineering and supervises undergraduate and graduate students from both Industrial and Mechanical Engineering who work on independent study projects.

Broadening Participation of Groups Underrepresented in STEM – Dr. Roberts engages with underrepresented students in grades K-12 in hopes of increasing their awareness of STEM disciplines.

Most recently, this was achieved through her interactions with students through programs such as MIT's Interphase EDGE (where she served as a residential counselor), MIT's MAP E-Mentoring Initiative (where she served as a mentor), and the Society of Women Engineers' Wow! That's Engineering! (where she served as a volunteer).

Service to the Scientific/Engineering Community – Dr. Roberts serves as a technical paper reviewer for the following conferences and journals: Automotive User Interfaces and Interactive Vehicular Applications Conference, Human Factors and Ergonomics Society Annual Meeting, the Transportation Research Board Annual Meeting, Ergonomics in Design, and the Human Factors Journal.

Improving National Security – Dr. Roberts spent two years as a Technical Staff Member at MIT Lincoln Laboratory, a federally funded research and development center who focuses on solving critical issues related to national security. One of her former cyber security projects was published and presented at the IEEE Security and Privacy Conference.

Increasing Partnerships between Academia and Industry – Dr. Roberts has experience working on collaborative research projects that involve both academic and industry partners. These projects have resulted in seven peer reviewed conference and journal publications.