

Civil and Environmental Engineering

Present

Understanding the Challenges of Autonomous Vehicles from a Social-Environmental Psychology Perspective

Speaker:

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Driving AVs that are not <u>fully</u> autonomous, and on roadways that are a mix of human-driven and self-driven vehicles involves serious challenges. Requiring a human to take over control after long stretches of inaction makes demands that are quite at odds with the way humans' perception-action systems naturally operate. With collaborator Andy Tucker (graduate student in the <u>Center for the Ecological Study of Perception and Action</u>), I am considering what perceptual and action manipulations might ameliorate this problem. We also address AV interactions with pedestrians and non-AV drivers: what manipulations could compensate for changed driving social "affordances" (action possibilities)?

Bio:

Kerry L. Marsh, Ph.D., Professor of Psychological Sciences, is a member of the <u>Transportation Technology & Society</u>, research team, started with funding by an Academic Plan award. Her research is based at both Storrs and Hartford campuses where she teaches courses in social and environmental psychology (graduate courses at Storrs, undergraduate at Hartford). Her research on person-environment interactions frequently involves highly interdisciplinary teams and often uses novel methodologies (e.g., motion tracking and dynamical systems analyses; using virtual reality to study interpersonal risk & navigation through buildings during simulated emergencies). She served as Program Director for NSF from 2014 to 2016.

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