

Seminar Talk

Dr. Jing Chen

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**Tuesday, April 17, 2018
3:00 p.m. KH 224**

Title: Towards the Driver-Automation Interaction in Semi-Autonomous Driving Systems

Abstract:

Autonomous vehicles have been seen as a promising replacement for human-driven vehicles to ensure road safety and efficiency, and will become an important part for modern transportation systems. However, one can envision that there will be a long time before all cars become fully autonomous. In the foreseeable near future, a human driver/monitor is still needed in front of the wheel to ensure the safety and security of the driving system and the society in general. Thus, it is crucial to study and improve the driver-automation interaction in semi-autonomous driving systems, in which the driver and the automation should collaborate with each other to ensure system performance. In this presentation, I will talk about a serial of studies that have been conducted in the Human-Automation Collaboration (HAC) Laboratory. The studies focus on how to design effective car warnings, how drivers' take-over response type affects performance, and how the drivers respond to a simulated cyberattack in a semi-autonomous driving system.

Bio:

Jing Chen joined the ODU Psychology Department as an Assistant Professor of Human Factors Psychology in August 2017. She received her Ph.D. in Cognitive Psychology and master's in Industrial Engineering at Purdue University in 2015. Dr. Chen's Human-Automation Collaboration (HAC) Laboratory in the Psychology Department at ODU investigates the fundamental principles of human performance and decision-making, and applies these principles to real-world problems. Her team has worked safety-critical systems such as semi-autonomous driving systems and phishing detection systems in the cyber space.