

Civil and Environmental Engineering

Present

*Joint Seminar in Transportation & Urban Engineering and
Environmental Sciences & Engineering*

Will Weather Dampen Self-Driving Vehicles?

Speaker:

Curtis Walker, PhD
Project Scientist

National Center for Atmospheric Research (NCAR)

Whether you are traveling to work or school, driving across the country on vacation, or waiting for a package to arrive, weather can have a big impact on surface transportation. Each year in the United States, 1 in 5 roadway crashes are associated with adverse weather conditions resulting in thousands of fatalities, hundreds of thousands of injuries, and billions of dollars in socioeconomic costs and losses. Transportation agencies and the weather enterprise are increasingly turning to severity indices for winter weather, roadway flooding, and more, to better understand and communicate the forecast or perceived level of impacts on motorists and vehicles during adverse weather conditions. Emerging technologies, such as advanced driver assistance systems (e.g., blind spot warning, adaptive cruise control) and automated driving systems, aspire to improve roadway safety; however, weather conditions can affect the reliability of these features. Impact quantification can provide further insights into the limits of these systems and guide research to develop mitigation strategies. NCAR scientist Dr. Curtis Walker discusses the impact that weather has on roads and emerging vehicle technologies such as connected, automated, and electric vehicles.

Bio: Dr. Curtis Walker is a Project Scientist at NCAR as part of the Research Applications Laboratory ([RAL](#)) Weather Systems and Assessment Program ([WSAP](#)) specializing in research at the intersections of [transportation](#), [weather / climate](#), and [artificial intelligence](#). He brings over 11 years of surface transportation meteorology research, development, and project management experience. He is also a Section Co-Lead for University Partnerships within NCAR's Education, Engagement, and Early-Career Development Center of Excellence.



Friday, October 28, 2022

12:20 – 1:10 PM

**United Technologies Engineering Building
(UTEB) - Room 150**