Civil & Environmental ENGINEERING

UCONN SCHOOL OF ENGINEERING

Civil and Environmental Engineering

Present

Emerging Transportation Technologies and the Climate Crisis

Speaker:

Carol Atkinson-Palombo, PhD
Professor, Department of Geography

Globally, transportation accounts for a significant and growing component of the greenhouse gas (GHG) emissions responsible for the ongoing climate crisis. In various cities around the world, two distinct pathways are emerging as potential solutions for climate mitigation—Connected, Autonomous, and Electric Vehicles (CAVs); and expansion of public/active transportation. Supporters of CAVs argue that widespread adoption of electric self-driving vehicles will not only reduce vehicle emissions, but will also virtually eliminate traffic deaths, a large majority of which are caused by people such as distracted driving. A second school of thought focuses on urban design to create built environments that are conducive to walking, biking, and public transportation systems. This talk will discuss the pros and cons of these two emerging pathways and their ability to generate Sustainable Transportation Systems, that meet the following criteria: (1) Allows the basic access needs of individuals and societies to be met safely and in a manner consistent with human and ecosystem health, with equity both within and between generations; (2) Is affordable, operates efficiently, offers choice of transport mode, and supports a vibrant economy; and (3) Limits emissions and waste to those within the planet's ability to absorb them, minimizes consumption of nonrenewable resources, limits consumption of renewable resources to the sustainable yield level, reuses and recycles components, and minimizes the use of land and the production of noise. The analysis draws upon theories of Socio-Technological Transitions and also addresses the concept of Technosalvation.

Bio:

Having spent five years as a National Science Foundation IGERT scholar in Urban Ecology, Dr. Atkinson-Palombo has been trained to collaborate with interdisciplinary teams to pursue use-inspired policy-relevant research. She uses geographical techniques such as GIS-based spatial analysis, statistical modelling, and qualitative methods to assess the impact of policies intended to promote sustainable cities. Much of her work to date has focused on transportation sustainability, which shapes a wide array of societal concerns such as air pollution, land use, global climate change, and social and environmental equity. An emerging area of interest is the ongoing transition to a low carbon economy in the United States, and the debates about what role technology will play in this transition. She is also interested in understanding what factors shape the social acceptance of technology, particularly renewable energy technologies.

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12:20 – 1:10 PM

McHugh Hall (MCHU) - Room 106