INTRODUCTION

The Department of Civil and Environmental Engineering (CEE) at the University of Connecticut invites applications for a tenure-track position at the Assistant Professor level in the general area of Sustainable, Resilient, and Equitable Infrastructure Planning and Operations.

The Department of Civil and Environmental Engineering has a RU/VH: Research Universities (very high research activity) Carnegie Basic Classification. The Department has 32 faculty members, over 425 undergraduate students, and over 100 graduate students. The State of Connecticut has launched a new transportation plan called "Let's GO CT" that calls for $100 billion to be invested in the State's transportation over the next 30 years, and UConn is well-positioned to play a significant role in the long-range strategic plan to move Connecticut to a best-in-class transportation system. In addition, the Senate recently approved a $1 trillion infrastructure bill to rebuild the nation's deteriorating roads and bridges and fund new initiatives in infrastructure resilience, bringing new opportunities in infrastructure research and development.

The successful candidate will be expected to develop a vibrant federal-, state- and industry-funded research program, and pursue traditional and non-traditional external funding sources. Candidates will be expected to develop and sustain an internationally recognized research program to advance knowledge for addressing fundamental challenges at the intersection of transportation engineering and policy, focusing on key issues in transportation equity and sustainability. The candidate is expected to pursue a creative and innovative multidisciplinary research agenda that benefits owners, operators, decision-makers, and the traveling public. The candidate should have research expertise in at least one of the following areas:

Infrastructure Design in an Uncertain Future: Infrastructure planning decisions must consider the realities of the world today along with future changes and needs, including disruptive forces such as new transportation technologies (e.g., electric vehicles and the Internet of Things), an aging and increasingly culturally diverse population, and climate change and increased vulnerability to natural disasters. Existing planning and design methods must evolve to address the challenges of changing populations and landscapes, including disparate impacts and access, systemic underinvestment in infrastructure, and affordability and reliability of associated services. Continued research in making transportation infrastructure and investments more adaptive and resilient is paramount in the face of increasing and intensifying natural hazards combined with sea-level rise, new temperature norms, and other effects of climate change. Therefore, innovations are needed in building or retrofitting infrastructure to mitigate and adapt to changes in climate, improving the efficiency of transportation networks, reducing the vulnerability of transportation assets, and devising strategies to address disruptions.

Clean Transportation Planning and Policy: According to the U.S. Environmental Protection Agency, the transportation sector generates the largest share of greenhouse gas emissions among economic sectors. Examples of research areas include multimodal transportation development and green infrastructure assessment and development. The accelerated adoption of electric vehicles and deployment of suitable infrastructure is an essential component to enable a clean transportation future, and one that requires careful planning and policy development. Advancing

sustainable transportation requires understanding the trade-offs at play, the environmental and social externalities, impacts on energy use, new risks and vulnerabilities, and equity considerations. Key research areas in this domain include modeling of transportation electrification and charging infrastructure development, determining policies that accelerate decarbonization, and capturing interdependencies with the electricity grid and other systems.

Supply Chain Resiliency: The Covid-19 pandemic challenges the resilience of our supply chain systems with widespread disruptions due to lockdowns and movement restrictions. At the same time, global supply chains' efficiency proved essential for the timely delivery of medical products, the vaccine, and other products that supported the emergence of new business models based on e-commerce. These challenges and new opportunities prompt the need for robust and efficient design and operation of supply chain and logistics networks under new and uncertain scenarios; the development of strategies for the mitigation of the impact of uncertainty and disruptions on freight systems; integration of new data sources in understanding global freight patterns; understanding of the impacts of new technologies such as unmanned aerial vehicles and drones in freight system optimization; and understanding of the broader social, economic, and environmental impacts of supply chain and logistics systems.

Founded in 1881, the UConn is a Land Grant and Sea Grant institution and member of the Space Grant Consortium. It is the state's flagship institution of higher education and includes a main campus in Storrs, CT, four regional campuses throughout the state, and 13 Schools and Colleges, including a Law School in Hartford, and Medical and Dental Schools at the UConn Health campus in Farmington. The University has approximately 10,000 faculty and staff and 32,000 students, including nearly 24,000 undergraduates and over 8,000 graduate and professional students. UConn is a Carnegie Foundation R1 (highest research activity) institution, among the top 25 public universities in the nation. Through research, teaching, service, and outreach, UConn embraces diversity and cultivates leadership, integrity, and engaged citizenship in its students, faculty, staff, and alumni. UConn promotes the health and well-being of citizens by enhancing the social, economic, cultural, and natural environments of the state and beyond. The University serves as a beacon of academic and research excellence as well as a center for innovation and social service to communities. UConn is a leader in many scholarly, research, and innovation areas. Today, the path forward includes exciting opportunities and notable challenges. Record numbers of undergraduate applications and support for student success have enabled the University to become extraordinarily selective.

The successful candidate will also be expected to enhance inclusion and broaden participation among members of underrepresented groups, as demonstrated through their research, teaching, and/or public engagement; strengthen the richness of diversity in the learning experience; integrate multicultural experiences into instructional methods and research tools; and, provide leadership in developing pedagogical techniques designed to meet the needs of diverse learning styles and intellectual interests.

MINIMUM QUALIFICATIONS

Completion of all requirements for a Ph.D. in Civil or Transportation Engineering or a related field by the time of appointment (equivalent foreign degrees are acceptable); possess research

expertise in at least one of the following areas: Infrastructure Design in an Uncertain Future, Clean Transportation Planning and Policy, or Supply Chain Resiliency; demonstrated potential for excellence in teaching, with a commitment to effective instruction at the undergraduate and graduate levels; ability to teach transportation engineering courses, as well as basic civil engineering courses; demonstrated potential in establishing and undertaking successful research and scholarship; and, demonstrated commitment to enhancing inclusion and broadening participation among members of underrepresented groups.

PREFERRED QUALIFICATIONS

Professional Engineering license or the ability and intent to obtain one within five years; an undergraduate degree in civil or transportation engineering; an outstanding record of research and scholarship excellence; demonstration of effective teaching and integrating technology into instruction; an established record of excellence in teaching; the ability to effectively communicate and a record of public engagement; demonstrated experience promoting diversity in civil and environmental engineering; and, the ability to pursue collaborative opportunities with UConn faculty. Applicants who can collaborate and perform inter-disciplinary work in addition to individual research efforts will be preferred, as well as candidates who demonstrate a commitment to developing and expanding academic and scholarly initiatives of the Department and School of Engineering in the topic of infrastructure systems.

APPOINTMENT TERMS

This is a full-time, 9-month, tenure-track position with an anticipated start date of August 23, 2022. The successful candidate's primary academic appointment will be at the Storrs campus, with the possibility of assignment at one of UConn's regional campuses. Salary will be commensurate with qualifications and experience.

TERMS AND CONDITIONS OF EMPLOYMENT

Employment at the University of Connecticut is contingent upon the successful candidate's compliance with the [University's Mandatory Workforce COVID-19 Vaccination Policy](https://academicjobsonline.org/ajo/jobs/20447). This Policy states that all workforce members are required to have or obtain a Covid-19 vaccination as a term and condition of employment at UConn, unless an exemption or deferral has been approved.

Employment of the successful candidate is contingent upon the successful completion of a pre-employment criminal background check.

TO APPLY

Please apply online to Academic Jobs Online https://academicjobsonline.org/ajo/jobs/20447 and submit the following application materials:

- **A cover letter**;
- **Curriculum vitae**;

- **Research and scholarship statement** (innovative concepts that will form the basis of academic career, experience in proposal development, mentorship of graduate students, etc.);
- **Teaching statement** (including teaching philosophy, teaching experience, commitment to effective learning, concepts for new course development, etc.);
- **Commitment to diversity statement** (including broadening participation, integrating multicultural experiences in instruction and research and pedagogical techniques to meet the needs of diverse learning styles, etc.);
- **Two (2) sample journal articles;**
- Contact information, including email and phone number for **three (3) references**.

Evaluation of applicants will begin immediately and continue until the position is filled.

At the University of Connecticut, our commitment to excellence is complemented by our commitment to building a culturally diverse community.

This position will be filled subject the budgetary approval.

All employees are subject to adherence to the State Code of Ethics which may be found at http://www.ct.gov/ethics/site/default.asp.

The University of Connecticut is committed to building and supporting a multicultural and diverse community of students, faculty and staff. The diversity of students, faculty and staff continues to increase, as does the number of honors students, valedictorians and salutatorians who consistently make UConn their top choice. More than 100 research centers and institutes serve the University's teaching, research, diversity, and outreach missions, leading to UConn's ranking as one of the nation's top research universities. UConn's faculty and staff are the critical link to fostering and expanding our vibrant, multicultural and diverse University community. As an Affirmative Action/Equal Employment Opportunity employer, UConn encourages applications from women, veterans, people with disabilities and members of traditionally underrepresented populations.