

**Dr. Catherine Armwood-Gordon, Assistant Professor of Architectural Engineering** joins with Washington State University to win a \$7.5 million grant from the U.S. Department of Transportation to lead a national university transportation center focused on improving the durability and extending the lifespan of the nation's transportation infrastructure.

U.S. Department of Transportation just announced that two new university national transportation centers (UTCs) awardee. Dr. Armwood (PI) and Dr. Lin Li (co-PI) at the Department of Civil and Architectural Engineering are principal investigator at TSU, they will work with the leading university (Washington State University) in this center. "The new University Transportation Centers will help develop answers to key problems facing drivers in America - deteriorating infrastructure. Potholes cause daily problems for motorists, wasting their time and causing damage to vehicles," said Deputy Assistant Secretary for Research and Technology Diana Furchtgott-Roth. "These universities are taking practical approaches to these problems that will result in solutions that America needs now."



Much of the nation's highway infrastructure is now reaching the end of the lifetime for which it was designed. Since the late 1990s, the American Society of Civil Engineers has provided a report card of U.S. infrastructure that shows consistently failing grades of between D to D+. More than 9% of approximately 600,000 bridges in the U.S. are considered structurally deficient, and 25% of highway pavement is in poor condition. The problem is exacerbated by population and traffic growth and an increasing number of disruptive and extreme weather events. The center will provide support for research, education, workforce development, technology transfer, and industry and public partnerships as a way to catalyze interactions and innovations. Key research areas include new materials, like ultrahigh performance concrete and fiber-reinforced polymeric composites, as well as non-destructive ways of evaluating the condition of infrastructure. Researchers will also be studying asset and performance management and resilience, so that engineers and managers can make better and more cost-effective decisions around maintenance.