



KEYNOTE LECTURE:

Toward Sustainable and Resilient Roadway Infrastructure

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Dr. Hao Wang is Professor and Graduate Program Director of Department of Civil and Environmental Engineering at Rutgers University. His research is focused on integrating innovative materials, computational modeling, non-destructive testing, and AI tools to realize sustainable, resilient, and smart pavement and transportation infrastructure. He has been PI or Co-PI of more than 70 research projects sponsored by over 20 federal government and state agencies in U.S. He has published over 200 journal papers with Google Scholar total citations over 16,000, and h-index of 69.

Abstract: Roadway infrastructure poses challenges to the vision of sustainable world because it consumes massive energy and non-renewable materials while generating greenhouse gas emission. At the same time, roadways need to be designed and constructed with resilience in response to climate change impacts such as flooding, global warming, and sea level rise. This presentation will discuss how to advance sustainability and resilience of roadway infrastructure from multiple aspects, including 1) decarbonization of asphalt pavement; 2) multi-functional pervious concrete; 3) energy harvesting; 4) assessment and mitigation of flooding impact on pavement.