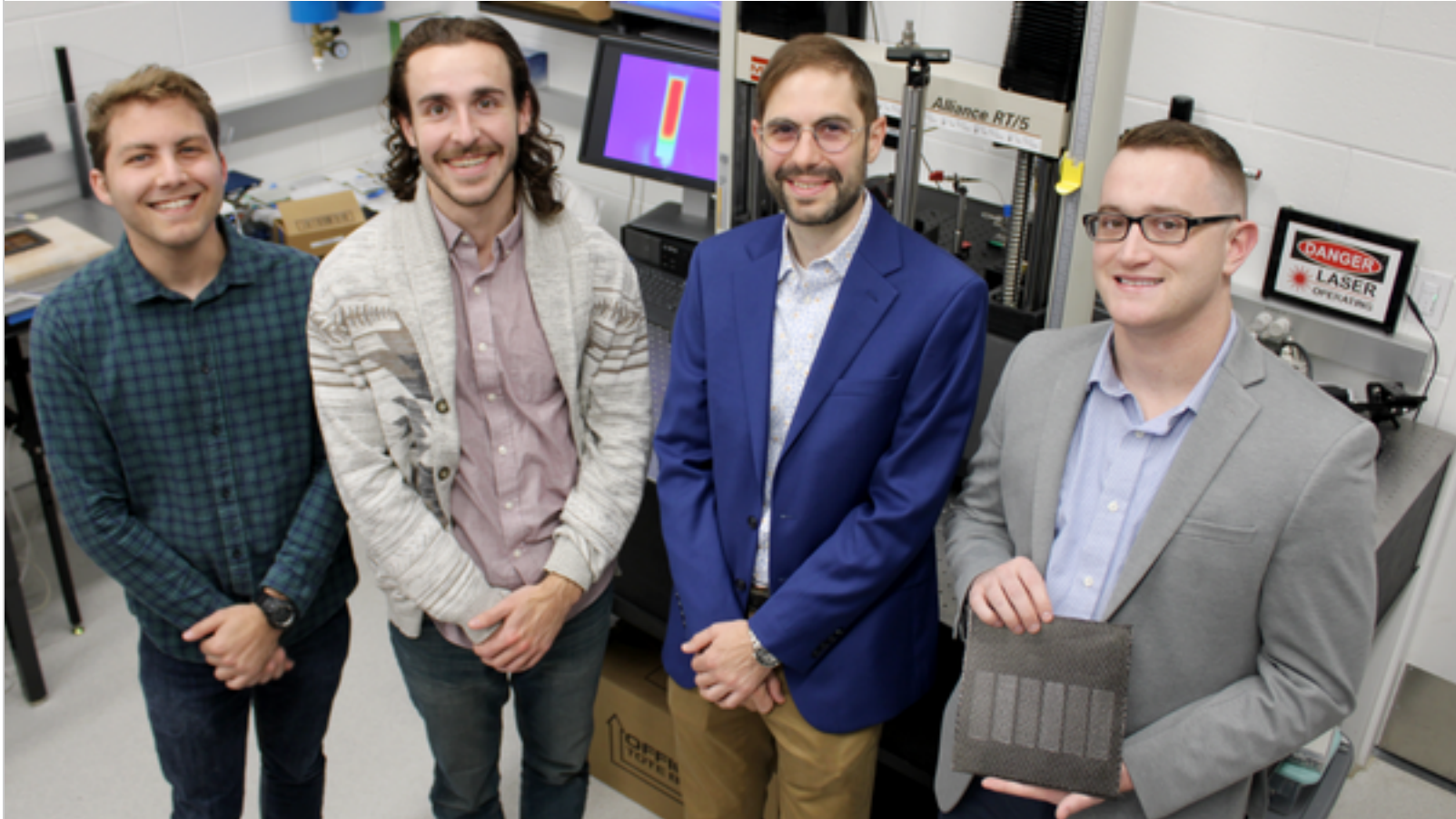


CCEE Winter 2022 News

A Newsletter of the Department of Civil, Construction, and Environmental Engineering



CCEE researchers overcome longstanding challenges for self-healing structural composites

CCEE researchers developed a new self-healing composite that allows structures to repair themselves in place, without having to be removed from service. This [latest technology](#) resolves two longstanding challenges for self-healing materials, and can significantly extend the lifespan of structural components such as wind-turbine blades and aircraft wings.

[Learn more about the study →](#)



Dr. Katherine Anarde named NASEM Early-Career Research Fellow

Assistant professor Dr. Katherine Anarde was among seven scientists named 2022 Early-Career Research Fellows in the Environmental Protection and Stewardship track by the Gulf Research Program of the National Academies of Sciences, Engineering, and Medicine.

[Read about Dr. Anarde's research on barrier islands →](#)



CCEE earns high rankings for civil, environmental engineering programs

CCEE's undergraduate civil engineering and environmental engineering programs continue to rank among the best in the nation, both claiming the No. 23 spot on U.S. News and World Report's annual Best Colleges list.

[Review this year's rankings →](#)



CCEE student team nabs 3rd in WEF design competition

Environmental Engineering student design team, advised by Dr. Francis de los Reyes, won third place at the 21st annual Water Environment Federation Student Design Competition at the WEFTEC conference in New Orleans on October 9. The team presented their design for the expansion and upgrade of the Graham County, North Carolina, Wastewater Treatment Plant.

[Dive into the team's design strategy →](#)



Helping autonomous vehicles navigate tricky highway merges

If autonomous vehicles are ever going to achieve widespread adoption, we need to know that they are capable of navigating complex traffic situations, such as merging into heavy traffic when lanes disappear on a highway. CCEE researchers have developed a technique that allows autonomous vehicle software to make the relevant calculations more quickly — improving both traffic and safety in simulated autonomous vehicle systems.

[Delve into the research →](#)



NC State chapter of ITE-ASHE-AREMA recognized for 25 years of service by Adopt-A-Highway Program

The NC State student chapter of the Institute of Transportation Engineers, American Society of Highway Engineers, and American Railway Engineering and Maintenance-of-Way Association (ITE-ASHE- AREMA) received recognition from the NC Department of Transportation (NCDOT) for its 25 years of participation in the Adopt-A-Highway Program.

[Read how CCEE students are making a difference in their community →](#)



CCEE Enhancement Fund

Your contribution to the CCEE Enhancement Fund will make an immediate impact and provide critical support for our department.

[Click here to give →](#)

Dec
16

[Fall 2022 Graduation →](#)

Jan
30

[CCEE Career Connections →](#)

CCEE IN THE NEWS

Dr. Jackie MacDonald Gibson was featured in a Daily Tar Heel story about detected lead levels in water sources on UNC Chapel Hill's campus. →

Dr. Ali Hajbabaie was interviewed on WRAL about his research using computer simulations to find ways to make autonomous vehicles safer. →

Dr. Detlef Knappe was highlighted on a CBS program focused on the negative effects of per- and polyfluoroalkyl substances (PFAS) compounds, which have been linked to several health issues such as cancer, liver damage and thyroid disease. →