

## CCEE Winter 2023 News

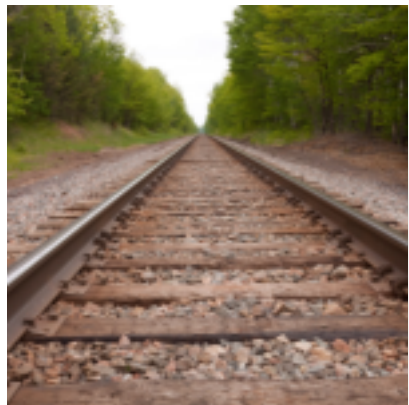
A Newsletter of the Department of Civil, Construction, and Environmental Engineering



### N.C. Section of ASCE holds 100-year celebration on Centennial Campus

The North Carolina Section of the American Society of Civil Engineers celebrated its 100-year anniversary on NC State's Centennial Campus on October 6. The celebration included guest speakers, awards, a scholarship presentation and a tour of CCEE labs in Fitts-Woolard Hall. There were dozens of attendees, including ASCE members, CCEE students and faculty, and ASCE President Maria Lehman.

[Delve into the event details →](#)



### Researchers tackle rail decarbonization with innovative A-STEP software tool

CCEE researchers developed a toolset that can be used to identify ways to reduce freight rail's carbon footprint, expanding the use of lower emission power sources. A-STEP (Achieving Sustainable Train Energy Pathways) is a first-of-its-kind, integrated, open-source software tool that can help guide freight rail decarbonization decision-making.

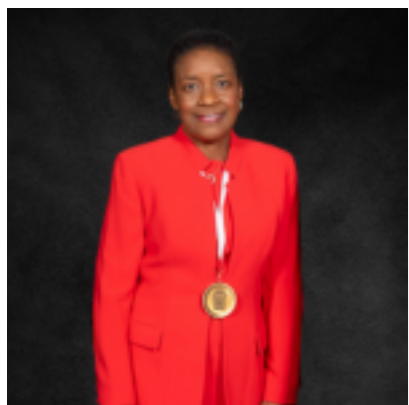
[Learn more about the new tool →](#)



### CCEE's environmental, civil programs continue to climb in annual ranking

CCEE's undergraduate environmental engineering and civil engineering programs continue to rank among the best in the nation, claiming the No. 15 and No. 21 spots, respectively, on U.S. News and World Report's annual Best Colleges list. The environmental engineering program rose eight spots from last year's ranking, and the civil engineering program rose two spots.

[Review this year's rankings →](#)



### Alumnus Deborah Young receives Distinguished Engineering Alumni Award from College of Engineering

CCEE alumnus Deborah Bell Young (BSCE 1977) received the NC State College of Engineering Distinguished Engineering Alumni Award during a dinner and ceremony on campus on October 25 as part of Red and White Week. The award was established by the College's faculty in 1966 and is the highest honor bestowed upon alumni.

[Read about Young's accomplishments →](#)



### Eleni Bardaka to lead NSF research on equitable microtransit systems

A team of researchers led by CCEE Assistant Professor Eleni Bardaka was awarded a \$1.8 million grant from the National Science Foundation Smart & Connected Communities Program to develop, test and evaluate smart, technologically enabled, and community-supported solutions for distributing travel demand over time and increasing ridesharing and efficiency in public microtransit systems in an equitable manner.

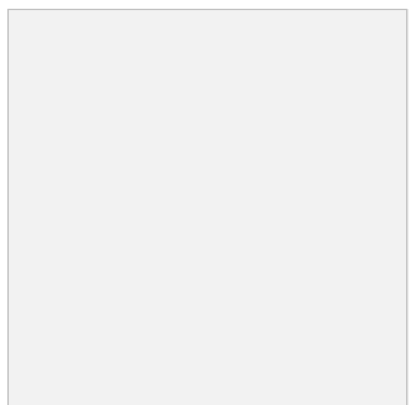
[Read about the study →](#)



### CCEE student team places fourth in WEF Student Design Competition

A team from CCEE's Environmental Engineering Project CE 481 Senior Design Team won fourth place in the Water Environment Federation Student Design Competition on October 1 in Chicago. The team, which included Elizabeth Bates, Sydney Crisanti, Mitch Edney and Hailee Sicknick, presented a design for the Biosolids Infrastructure Expansion for the Manchester Creek Wastewater Facility in Rock Hill, South Carolina.

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



### Katherine Anarde receives federal funding to help underserved communities develop greater resilience to flooding

Assistant Professor Katherine Anarde received funding from the Department of Commerce and National Oceanic and Atmospheric Administration's Climate Adaptation Partnerships Program to study chronic flood risk in underserved coastal communities in North Carolina and Hawai'i. The project will incorporate community workshops, measurements of flooding and flood models to identify key vulnerabilities and impacts.


[Learn more about Anarde's research →](#)


### 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](#) 

### CCEE IN THE NEWS

**Professor Sankar Arumugam and Ph.D. student Hemant Kumar's work on a crop and water use computer modeling tool was featured in AP News.** 

**Postdoctoral Research Scholar Pegah Ghasemi was interviewed on technical society Geo-Institute's web series Director's Cut.** 

**Professor Ali Hajbabaie discussed his work with self-driving cars on CBS 17.** 

**Professor Morton Barlaz was cited in a L.A. Times story on chemical reactions in local landfills.** 

**Professor Francis De Los Reyes was featured in a Radio IQ story about Virginia's water quality challenges.** 