

CEE @ Illinois



News from the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign



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[CEE RailTEC Researchers Conducting High-Speed Rail Research](#)

As high-speed rail (HSR) comes to the U.S., CEE researchers are conducting projects essential to its success. Railroad engineering lecturer and CEE alumnus J. Riley Edwards (MS 06) is leading a \$3.3 million study to improve HSR track components. Professor Chris Barkan, head of the Rail Transportation and Engineering Center (RailTEC), is leading a study to determine the feasibility of an HSR line between Chicago and Champaign. [More on the HSR research](#)



[IDOT to Invest \\$23 Million in Illinois Center for Transportation Research](#)

The Illinois Department of Transportation (IDOT) will invest more than \$23 million over the next five years to continue transportation research conducted by the Illinois Center for Transportation (ICT), headquartered within CEE at the University of Illinois at Urbana-Champaign. Since its inception in 2005, ICT has grown to become one of the leading transportation centers in the nation. The center's varied research includes developing better designs for sustainable and environmentally friendly pavements and highway systems, improving work zone safety, implementing technologies to improve bridge construction and safety, and achieving energy savings for Illinois' transportation facilities. [More on the IDOT grant](#)



[Research Team Studying Hydrologic, Environmental Effects of Missouri Flooding](#)

When the U.S. Army Corps of Engineers saved the town of Cairo, Ill., from flooding in May by using explosives to breach a protective levee and divert the rising waters of the Mississippi and Ohio rivers, about 130,000 acres of Missouri farmland were inundated. Calling the intentional flooding a "once-in-a-scientific-lifetime" occurrence, University of Illinois researchers are studying the hydrologic and environmental effects to determine the extent of the damage and develop recommendations to inform such decisions in the future. "This is the largest flood that the lower Mississippi has seen—ever," said Civil and Environmental Engineering Professor Praveen Kumar, who is leading the study. [More on the flood research](#)



[Reconnaissance Mission Studies Japan Earthquake, Tsunami Damage](#)

As part of an engineering reconnaissance mission to Japan, Professor Youssef Hashash got a first-hand view of the aftermath of the massive earthquake and subsequent tsunami that devastated the country in March. The purpose of the trip was to gather data about the response of the country's infrastructure to the disaster, said Hashash, the John Burkitt Webb Endowed Faculty Scholar. Experts in structural engineering, geotechnical engineering, and tsunamis made up the team, which traveled to Japan April 9-15. The group was briefed by faculty at Tokyo Institute of Technology before traveling north to Sendai, where some of the worst damage occurred. [More about the Japan earthquake mission](#)



[Into Africa: Students Tackle Water Projects in Ethiopia, Kenya](#)

Professor Benito Mariñas has broadened the scope of his popular environmental lab course to include student design projects related to water treatment in sub-Saharan Africa. In addition to

ongoing work in Mexico, Mariñas added class projects in Ethiopia and Kenya. Three student teams traveled to their designated project sites this spring to gather information and water samples and collaborate with college students at universities local to the various projects. “The places that really need this, where most people are dying because of lack of access to clean water and lack of access to sanitation, are in sub-Saharan Africa,” said Mariñas, the Ivan Racheff Professor of Environmental Engineering. [More on the Africa project](#)



[Jon Khachaturian Joins Structures Faculty as Visiting Adjunct Professor](#)

Jon E. Khachaturian (BS 78) has joined the structures group of CEE as a visiting adjunct professor. As the CEO of Versabar Inc. of Houston, Texas, he directs a group of six companies with more than 650 employees engaged in heavy lift engineering and field operations both on-shore and offshore. Khachaturian holds more than 50 patents and has been a leader in heavy lift technology in the Gulf of Mexico for more than 30 years. In 2010, Khachaturian was named to the National Academy of Engineering “for developing innovative, safe, reusable, and economical heavy lifting systems to advance the international marine industry.” [More about Khachaturian's appointment](#)



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