

# CEE @ Illinois



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



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## [Reducing Carbon Particles a Strategy for Controlling Global Warming](#)

One immediate way to reduce the current levels of global warming and avert rapid climate change, researchers say, would be to focus on pollutants with short atmospheric lifetimes, like soot, also known as black carbon. Black carbon is composed of fine particles produced from the incomplete combustion of diesel fuel, wood, crop waste, and other biomass, oil, refuse, and, in some cases, coal. Tami Bond, associate professor and Arthur and Virginia Nauman Faculty Scholar, says these particles absorb light and turn it into heat, whether they are suspended in air or darkening and melting snow. [More on carbon particles in the atmosphere](#)



## [CN Makes Major Gift to Railroad Engineering Program](#)

CN has made a \$325,000 donation to the Railroad Engineering Program, a gift which renews the company's generous commitment to railroad engineering education. The company has now donated more than \$1 million since 2002 in support of the Railroad Engineering Program, which is the largest in North America. In 2002, the company's initial gift of \$400,000 was matched by the University and endowed an ongoing fellowship supporting graduate students' research and education in rail engineering. In 2006, a \$300,000 gift helped establish a lecturer position. Railroad engineering Lecturer J. Riley Edwards (MS 06) is the current holder of the CN-sponsored lectureship. [More on CN's gift](#)



## [Liang Liu Appointed CEE Associate Head and Director of Undergraduate Studies](#)

Associate Professor Liang Y. Liu has been appointed CEE Associate Head and Director of Undergraduate Studies. He succeeds Professor David A. Lange, who served in the position since 2004. Since he joined the faculty in 1992, Liu has taught graduate and undergraduate courses in Construction Productivity, Cost Estimating, Construction Management Information Systems, and Construction Case Studies. His research program includes both basic and applied research in construction engineering and management, including project controls, productivity analysis and improvement, cost engineering, information technologies, facility life-cycle analysis, risk management, and computer simulation. [More on Liu](#)



## [Student's Work Promises Better Construction Project Monitoring](#)

The use of digital photos to monitor construction projects has become commonplace, thanks to inexpensive cameras, low-cost memory and Internet access on construction sites. CEE student Mani Golparvar-Fard (PhD 10) developed a new modeling technique that uses such common photos to visualize and automatically track construction progress in four dimensions, offering

construction professionals a new, low-cost way to keep an eye on projects. Using digital photos of modest resolution, building information models, and construction schedules, the system allows monitoring of progress, productivity, safety, quality and more. [More about D4AR Modeling](#)



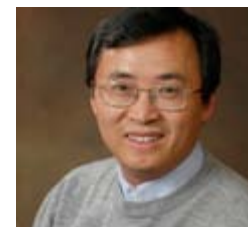
### [Paulino Elected Member-at-Large of U.S. Association for Computational Mechanics](#)

Professor Glaucio Paulino has been elected Member-at-Large of the United States Association for Computational Mechanics (USACM) for the upcoming term. The USACM promotes research, and commercial and academic activities, in computational mechanics in the U.S. Members-at-large serve on the organization's Executive Council for four-year terms. A member of the CEE faculty since 1999, Paulino is the Donald Biggar Willet Professor in Engineering. He has taught classes in mechanics of materials, fracture mechanics, plates and shells, continuum mechanics, tensor analysis, methods of structural analysis, finite element method, and boundary element method. [More on Glaucio Paulino](#)



### [Ximing Cai Named First Ven T. Chow Scholar](#)

Associate Professor Ximing Cai has been named the first Ven T. Chow Faculty Scholar in Water Resources. The late Professor Ven Te Chow (PhD 50) developed a world-renowned program in water resources engineering at the University of Illinois and was instrumental in obtaining funding from the National Science Foundation to build the Hydrosystems Laboratory. Since joining the faculty in 2003, Cai has become one of the department's rising stars in water resources engineering and management. He teaches courses in water resources engineering, surface water hydrology and application of geographic information systems, and river basin management. [More about Ximing Cai](#)




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