

National Science Foundation Director Visits UT College of Engineering

Arden L. Bement Jr., Director of the National Science Foundation (NSF), visited the UT College of Engineering Sept. 13 and was a featured speaker in the Department of Nuclear Engineering Colloquium Program.

Bement's talk, "The Globalization of Science and Engineering: Competing and Collaborating," focused on current global challenges facing United States scientists and engineers.

NSF is one of the major sources of American research funding. As NSF Director, Bement oversees an agency providing support to 200,000 scientists, engineers, educators and students each year with a budget of about \$5.5 billion.

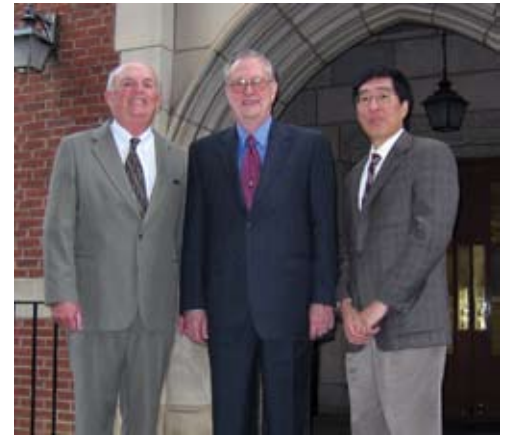
Bement discussed the challenges faced by the

country in maintaining technology leadership in the face of major growth by countries like India and China, which are making major investments in both scientific talent and infrastructure.

"There are few people as close to this issue as Dr. Bement," said Lee Riedinger, UT's Interim Vice Chancellor for Research. "He brings a unique perspective to the table on global scientific competition."

In addition to increased competition for scientific talent, there is increased global pressure on the United States to further develop a national ability to convert knowledge into applications.

Bement pointed to the need for increased investment in science and engineering research and



Nuclear Engineering Department Head Dr. Lee Dodds (left) called upon his colleague NSF Director Dr. Arden Bement (center) to visit UT and address the global nature of science and engineering. Dean Way Kuo (right) has been instrumental in the development of the college's international initiatives.

education and also addressed enhancing the nation's role as both a scientific leader and trusted international partner.

Prior to becoming NSF Director in 2004, Bement was director of the Department of Commerce's National Institute of Standards and Technology. He was previously a Distinguished Professor and Head of the School of Nuclear Engineering at Purdue University.

Dr. Lee Dodds, Professor and Head of the UT Nuclear Engineering Department, met Bement in the early 1990s when they both had students competing in the American Nuclear Society's Annual Student Design Competition in Washington, D.C. Dodds stayed in touch with Bement over the years, and recently invited him to speak in the UTNE Department Colloquium Program.

"Arden's breadth of knowledge goes way beyond his roots in nuclear engineering," Dodds said. "Our country needs more science and technology leaders like Arden Bement, and we are immensely pleased to have him participate in our Colloquium Program."

"We are honored that Arden chose to visit UT," said Way Kuo, COE Dean. "We are very grateful for the support NSF provides to our college, and his address offered a great deal of valuable information for our researchers."

UT Chancellor Loren Crabtree hosted a dinner to welcome Bement to Knoxville and the university on the evening prior to the colloquium.

An archive of Bement's web cast address is available at <http://www.engr.utk.edu/nuclear/colloquia/Archive>.

—Story by Kim Cowart

Two Female Faculty Members Claim NSF CAREER Awards

The National Science Foundation's (NSF) prestigious Early Career Development Awards (CAREER) support new tenure track faculty planning to develop highly integrative and effective careers in research and education. In 2005, two faculty members of the College of Engineering were added to the growing list of CAREER Award recipients in the college.

Dr. Hairong Qi, Associate Professor in the Department of Electrical and Computer Engineering, received her award for research titled "Collaborative Signal and Information



Dr. Hairong Qi

Processing in Sensor Networks." Dr. Qi received her Ph.D. from North Carolina State University and through her research hopes to

tackle challenges of collaborative processing such as contradictory requirements between energy efficiency and fault tolerance.

Dr. Jayne Wu, Assistant Professor in the Department of Electrical and Computer Engineering, received her CAREER Award for research titled "Developing Asymmetric-Polarization AC Electrosynthesis for Lab-on-a-Chip." Dr. Wu received her Ph.D. from the University of Notre Dame and has been part

of the ECE faculty since August 2004. Dr. Wu supports interdisciplinary research in the areas of microfluids, bioMEMS, sensors and actuators through her development of a Micro-Sensors and Actuator Laboratory at UT.



Dr. Jayne Wu

"Dr. Qi and Dr. Wu's achievements change the perception of engineering as a male-dominated field. Their accomplishments help to attract more females to this promising field and encourages them to succeed," said Dr. Samir El-Ghazaly, head of the electrical and computer engineering department. "These awards are a statement and testimony of the quality of junior faculty recruited by the ECE department and show promise for the future."

"The number of CAREER Awards in the College of Engineering has increased substantially in the last several years," said Dr. Wayne Davis, associate dean of research and technology. "This increase indicates that our faculty members are highly qualified and very competitive on the national scene."

—Story by Amanda Womac