faculty awards

From left to right: Ning Xi, Ramakrishna Mukkamala, Steven Shaw, Bruce Dale, and Carl Boehlert.

Five Faculty Honored at MSU Awards Convocation

Five College of Engineering faculty members were recognized at the annual university-wide Awards Convocation February 12 at the Pasant Theatre, Wharton Center: Bruce Dale, Steven Shaw, Ning Xi, Carl Boehlert, and Ramakrishna Mukkamala. They were among 30 members of the campus community honored at the ceremony.

Distinguished Faculty Awards

Bruce Dale, professor of chemical engineering and associate director of MSU's Office of Bio-based Technologies, is an internationally recognized leader in the application of biotechnology principles to produce fuels, chemicals, and other industrial products from renewable plant resources. His pioneering research on the ammonia freeze-explosion process, a leading pretreatment method for lignocellulose, is now being commercialized by a major ethanol producer. As a teacher and mentor, he is sensitive to the human element involved in the application of engineering science and encourages this sensitivity in his students. Dale met with President Bush at the White House in Feb. 2007 as part of a group of experts on the subject of alternative fuels for transportation, then testified in April before the U.S. Senate. He was selected as the 2007 Sterling B. Hendricks Memorial Lecturer by the Agricultural Research Service (ARS), the USDA's primary research agency, in recognition of his outstanding contributions to the chemical science of agriculture.

Steven W. Shaw, professor of mechanical engineering, is recognized internationally for his research in nonlinear dynamics. His eclectic suite of contributions ranges from the extremely theoretical to the pragmatic. His research has made fundamental and original contributions to the understanding of systems undergoing chaotic dynamics and nonlinear vibrations. His seminal works on dynamic vibration absorbers have been translated into contemporary practice in the automobile industry; this environmentally sensitive design protocol could be responsible for fuel savings of more than 20 million barrels of oil each year. He is a fellow in the American Society of Mechanical Engineers and received the Society of Automotive Engineers Arch T. Colwell Merit Award (1997). He has delivered several keynote and invited lectures at international conferences, including the 2001 JSME Minisymposium on "Nonlinear Dynamics and Chaos in Mechanical Systems" in Tokyo. He is known for his mentorship of undergraduate and graduate students.

Ning Xi is the John D. Ryder Professor in the Department of Electrical and Computer Engineering and director of the Robotics and Automation Laboratory at MSU. His pioneering work on Internet-based telerobotics has laid the foundation for integrating robotics with information technology. He was named an IEEE fellow in 2007 for his contributions to the field of nanorobotic manipulation and assembly. He received the SPIE Nano Engineering Award (2007) and the Best Paper Award of *IEEE Transactions on Automation Science and Engineering* (2007). His major research contributions include the development of a nanorobotic manipulation and assembly system that enables a human to visualize and manipulate nano-scale objects in real-time. He is a consummate educator, providing students with an education that extends beyond the curriculum. He has mentored 10 doctoral students who are enjoying successful careers in academia and industry.

Teacher-Scholar Awards

Carl Boehlert, associate professor of chemical engineering and materials science, has an international reputation for his work on titanium-based alloys for high-temperature aerospace materials and biomedical implants. Honors include an NSF CAREER Award (2002); a Department of Energy Presidential Early Career Award for Science and Engineering (PECASE) (2002); and the American Institute of Mining, Metallurgical, and Petroleum Engineers "Rossiter W. Raymond Memorial Award" (2003). He is regarded by students as an enthusiastic, approachable, and dedicated teacher who creates a positive learning environment. He relates coursework to real-life situations and involves undergraduates in research projects.

Ramakrishna Mukkamala, assistant professor of electrical and computer engineering, is internationally recognized for his recent innovations in cardiovascular monitoring by signal processing. He received an NSF CAREER Award in March 2007 for his project: "Integrated Research and Education in Cardiovascular Signal Processing for Automated and Less Invasive Monitoring of Central Hemodynamics." Passionate about teaching, he emphasizes the understanding of major concepts, rather than rote memorization, and provides students with a means to apply theory through real-world computer assignments. Students remark that his highly interactive lectures "provoke critical thought" and "develop the problem solvers and inventors of tomorrow." ▸

U.S. Army Honors Associate Dean Wolff

Thomas F. Wolff, associate dean for undergraduate studies in the College of Engineering, was recognized by the U.S. Army for his work on a report on the performance of levees in Hurricanes Katrina and Rita. He was a member of the Internal Technical Review Team responsible for the nine-volume Interagency Performance Evaluation Team (IPET) report, authored by more than 150 experts affiliated with government agencies, consulting firms, and universities. Wolff received the U.S. Army "Commander's Award for Public Service" by Major General Don T. Riley, Director of Civil Works, U.S. Army Corps of Engineers. This award is the fourth highest honor that the Army can bestow upon a civilian.

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