

UC SANTA BARBARA

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National Academy of Engineering Elects Two More UCSB Professors

Two University of California, Santa Barbara professors have been elected members of the prestigious National Academy of Engineering.

John E. Bowers, a professor of electrical and computer engineering, and Robert M. McMeeking, a professor of mechanical and environmental engineering and of materials, were among 74 new members and 10 foreign associates elected in balloting by the academy's members, the results of which were announced in Washington today (February 11).

The academy cited Bowers "for contributions to the development of high-speed semiconductor lasers and other special optical devices for optical switching and communications systems."

McMeeking was cited "for contributions to the computational modeling of materials and for the development of codes widely used by industry."

Both professors serve on the faculty of the College of Engineering at UCSB, which now boasts 26 members of the National Academy of Engineering.

The National Academy of Engineering is an independent, nonprofit institution that provides leadership and guidance to the nation on the application of engineering resources to vital problems and issues. Established in 1964, it operates under the Congressional charter granted to the National Academy of Sciences in 1863.

Election to the academy is one of the highest professional distinctions that can be accorded an engineer. Academy membership honors those who have made "important contributions to engineering theory and practice" and those who have demonstrated unusual accomplishment in the pioneering of new fields of engineering, making major advancements in traditional fields of engineering, or developing or implementing innovative approaches to engineering education.

UCSB Chancellor Henry T. Yang, who is himself a member of the National Academy of Engineering, called this year's election to the academy of two more UC Santa Barbara professors "a magnificent achievement that brings great honor and distinction to our campus and our community."

"This news recognizes the extraordinary contributions that both of my colleagues have made to engineering and to research," said Yang. "Being elected to this important academy by one's peers is an important affirmation of hard work and years of groundbreaking research. I am very proud to salute my distinguished colleagues and I know that our entire campus community joins me in applauding their achievement."

Said Matthew Tirrell, dean of the College of Engineering and a National Academy member:

"Professors McMeeking and Bowers have made major contributions to mechanics and optoelectronics, respectively. They are superb examples of the strong, fundamental research and the effective technology development for which our College of Engineering is so well known."

Bowers is director of the Multidisciplinary Optical Switching Technology Center (MOST) at UCSB, where he heads the optoelectronics research group. He earned his Ph.D. at Stanford University and joined the UCSB faculty in 1987 after working for AT&T Bell Laboratories and Honeywell, where he worked on semiconductor lasers and photodetectors. His research interests are in the development of novel optoelectronic devices for the next generation of optical networks. He is the author of more than 400 journal articles and conference papers.

A fellow of the Institute of Electrical and Electronics Engineers and the American Physical Society, Bowers has received the IEEE's Lasers and Electro-optics Society William Streifer Award, among other honors. Earlier in his career he was awarded a Ph.D. fellowship by the National Science Foundation and was named a Presidential

Young Investigator by the NSF. At UCSB he helped establish and was executive director of the Center for Entrepreneurship and Engineering Management, now known as the Technology Management Program, with which he is still affiliated.

McMeeking, who earned his Ph.D. at Brown University, joined the UCSB faculty in 1985 after serving on the faculty of the University of Illinois Urbana-Champaign for seven years.

His research is focused on solid mechanics, materials, and structures, including the mechanics of materials, fracture, plasticity, composite materials, and materials processing. He has published more than 180 scientific papers on a range of related subjects, such as plasticity, fracture mechanics, computational methods, glaciology, tough ceramics, composite materials, and materials processing, among other topics.

A fellow of the American Society of Mechanical Engineers and the American Academy of Mechanics, McMeeking has been recognized by the Institute for Scientific Information as a "Highly Cited Researcher" in the fields of materials science and engineering. He is active in consulting for medical-device manufacturers and other industrial entities on topics of mechanical stress, fatigue life, fracture and ferroelectric devices. He is the editor (until 2007) of the Journal of Applied Mechanics, and is a member of the editorial boards of several journals in the fields of solid mechanics and materials.

Wm. A. Wulf, president of the National Academy of Engineering, said the recent election brought the organization's total U.S. membership to 2,195 and the number of foreign associates to 178.

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[National Academy of Engineering](#)

[John Bowers' web page](#)

[Robert McMeeking's](#)

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The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.