

UC SANTA BARBARA

# THE *Current*

February 20, 2003

Gail Gallessich

## **National Academy of Engineering Elects Three UC Santa Barbara Professors**

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

Glenn H. Fredrickson, Sanjit K. Mitra, and Shuji Nakamura were among 77 new members and nine foreign associates elected in balloting by the academy's members, the results of which were announced in Washington on February 14.

All three professors serve on the faculty of the College of Engineering at UCSB, which now boasts 22 members of the National Academy of Engineering.

The academy 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 National Academy of Engineering 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 three of his faculty colleagues "a stunning achievement that brings great honor to our campus and our community."

"I am absolutely thrilled by this news, which recognizes the extraordinary contributions that each of these three scholars has made to engineering and to research," added Yang. "Being elected by one's peers is an important affirmation of the hard work and creativity that have gone into years of research. I am proud to salute my distinguished colleagues and I know that our campus and community join me in applauding their achievement."

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

"The faculty in engineering at UCSB is extraordinary, and we have the numbers in the National Academy to prove it.

I am pleased to congratulate our newest members. Their professional achievements are indeed of the highest order."

The three newly elected members of the academy all expressed delight in being selected.

·Fredrickson, a professor of chemical engineering and director of the Mitsubishi Chemical Center for Advanced Materials, was cited by the academy for "advancing our understanding of the behavior of block copolymers and other polymeric and complex fluids." He joined the UCSB faculty in 1990 and served as chair of the chemical engineering department from 1998-2001. His areas of expertise include polymer physics, statistical mechanics, glass transition phenomena, composite media, and the design of plastic materials. "I am truly honored to have been elected to the National Academy of Engineering," said Fredrickson. "This is a great recognition of my research and teaching contributions to the fields of chemical engineering and soft materials science. It is a nice surprise and significant distinction to have been elected so early in my career."

·Mitra, a professor of electrical and computer engineering, has been on the UCSB faculty since 1977. He works mostly in the areas of analog and digital signal processing, with an emphasis on image and video processing.

He has had a long-term international collaboration with researchers from many countries. He was cited by the academy "for his contributions to signal and image processing, for research supervision, and for writing pioneering textbooks." Said Mitra: "I am honored and pleased. I owe this and other honors I have received to my former students and many colleagues from UCSB and other institutions with whom I had the opportunity to work."

·Nakamura, a professor of materials, was elected as a Foreign Associate of the academy. He was cited for "contributions to optoelectronic engineering of gallium-nitride materials, culminating in the development of violet/blue lasers and light-emitting diodes."

Nakamura joined the UCSB faculty in February 2000 and is director of the Center for Solid State Lighting and Displays. He invented the first blue laser while working for Nichia Chemical Industries in his native Japan. He continues to work in the areas of blue lasers, gallium nitride, white light emitting diodes (LED), and solid state illumination. "I'm very pleased, very honored," said Nakamura. "I'm also very lucky to have come to UCSB. Santa Barbara is the best place for studying and for living."

Wm. A. Wulf, president of the National Academy of Engineering, said the recent election brought the organization's total U.S. membership to 2,138 and the number of foreign associates to 165.

---

## **About UC Santa Barbara**

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.