

UC SANTA BARBARA

# THE *Current*

June 21, 2005

Joan Magruder

## **UCSB Professor Wins Prestigious National Award for Distinguished Teaching and Scholarship**

Evelyn Hu, a professor of electrical and computer engineering and of materials at UC Santa Barbara and co-director of the California NanoSystems Institute, will receive the National Science Foundation's Director's Award for Distinguished Teaching Scholars at a ceremony in Washington, D.C. today. She is one of seven national winners. The award includes approximately \$300,000 in project support over four years.

With these awards, the National Science Foundation (NSF) seeks to promote improvement in the education of those who study science, technology, engineering, or mathematics (STEM).

The NSF Director's Award for Distinguished Teaching Scholars recognizes and rewards individuals who have contributed significantly to the scholarship of their discipline and to the education of students in STEM disciplines, and who exemplify the ability to integrate their research and educational activities.

This award program is part of the NSF's efforts to foster an academic culture that values a scholarly approach to both research and education.

The Director's Award is the highest honor bestowed by the NSF for excellence in both teaching and research in STEM fields, or in educational research related to these disciplines.

Professor Hu's proposed project, Insights on Science and Technology for Society (INSCITES), will form teams of undergraduate and graduate Student Teaching Scholars from departments of science, engineering, political science, economics, and history. These teams will develop and teach a series of modular courses that focus on the science, economics and sociology of innovative technologies that are an intrinsic part of our everyday life. Grounded in both science and social science, these courses are intended to provide the basis of a "liberal arts" of science.

The NSF cited Hu for her multidisciplinary activities that focus on the study of novel nanometer-scale structures and devices and the nanofabrication processes that are required for their formation. Her research on the heterogeneous integration of novel materials and the electronic structure of interfaces led to significant developments in new research areas including superconductor-semiconductor heterostructures and coherent quantum information processing and computation. Hu's pioneering atomic scale synthesis, fabrication, and patterning techniques enabled the demonstration of highly coupled quantum dot-optical microcavity interactions as a testbed to explore concepts in quantum information processing and computation.

In recognition of her many scientific contributions and accomplishments, Hu was elected to the National Academy of Engineering in 2002, and to the Academia Sinica in Taiwan in 2004.

Previously, she was named a Fellow of the Institute for Electrical and Electronic Engineers in 1994; the American Physical Society in 1995; and the American Association for Advancement of Science in 1998. She was also awarded an Honorary Doctor of Engineering degree from the University of Glasgow in 1995. She has published more than 300 papers and serves on the Board of Reviewing Editors for Science magazine.

Hu has provided leadership in the design and development of an educational portfolio that partners research scientists at UC Santa Barbara with K-12 and community college teachers and students. Through her leadership in two major research centers, she has developed and sustained a number of mentorship-based education activities, many of which reach out to traditionally underrepresented and

disadvantaged groups that typically do not have personal role models in the STEM disciplines.

In addition, she has introduced inquiry-based courses and activities at the undergraduate level drawing upon her cutting edge research as a means of engaging students. For her pioneering and sustained efforts in teaching and mentoring, Hu received the Lifetime Mentor Award of the American Association for Advancement of Science in 2000. In addition, she received the UCSB Academic Senate Distinguished Teaching Award in 1999 and the Outstanding Faculty Teacher Award in the Department of Electrical and Computer Engineering Award in 1989-90 and in 2004-5. This year the UCSB faculty selected Hu as the 2005 UCSB Faculty Research Lecturer, UCSB's most prestigious faculty award.

Hu received her B.A. in physics from Barnard College in 1969 and M.S. and Ph.D. degrees in physics from Columbia University in 1971 and 1975, respectively. She was appointed a professor of electrical and computer engineering at the UCSB in 1984 after having served on the technical staff of AT&T Bell Laboratories since 1975.

---

## **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.