

THE Current

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National Engineering Academy Elects Two From Santa Barbara

A prominent UC Santa Barbara faculty member and a distinguished alumnus of its College of Engineering are among the 68 new members elected today by the National Academy of Engineering.

Membership in the academy honors those who have made outstanding contributions to "engineering research, practice, or education, including, where appropriate, significant contributions to the engineering literature," and to the "pioneering of new and developing fields of technology, making major advancements in traditional fields of engineering, or developing/implementing innovative approaches to engineering education."

The new members affiliated with UCSB are:

David Awschalom, a professor of physics and of electrical and computer engineering. A pioneer in spintronics and quantum computation, Awschalom leads the California NanoSystems Institute at UCSB. He was cited for his "contributions to the understanding of spin coherence and spintronics."

Yulun Wang, an inventor and world-renowned authority on robotics and health care who earned his Ph.D. in electrical and computer engineering at UCSB. The founder and head of InTouch Health in Goleta, he was recognized for his "creation of remotely operated surgical robots and telemedicine devices."

"Professor Awschalom's groundbreaking research in spin dynamics and quantum information processing has been recognized with many important awards and accolades, and his election to the National Academy of Engineering is yet another indication of the high regard that engineers and scientists have for his work," said UCSB Chancellor Henry T. Yang. "We also are delighted to note the election of one of our alumni, Yulun Wang, who has pioneered the development of many telemedicine devices and surgical robots, and who is very involved with UC Santa Barbara and the local technology community.

"Our campus takes immense pride in the election of these two outstanding individuals by the Academy for their important contributions to science and humanity," Yang added. "We also take great pleasure in offering them our hearty congratulations."

Awschalom, who joined the UCSB faculty in 1992, is the Peter J. Clarke Professor and Director of the California NanoSystems Institute, and director of the Center for Spintronics and Quantum Computation. He has published more than 300 articles, has made over 700 invited presentations, and has been awarded four patents. His election brings to 24 the number of current UCSB faculty members in the National Academy of Engineering.

Among the many honors and awards Awschalom has received are the Oliver E. Buckley Prize from the American Physical Society in 2005; the Agilent Europhysics Prize from the European Physical Society in 2005; and the Newcomb Cleveland Prize from the American Association for the Advancement of Science in 2006. Awschalom is a Fellow of the American Physical Society and the American Association for the Advancement of Science, and a member of the American Academy of Arts and Sciences and the National Academy of Sciences. In 2008, he was honored with the UCSB Faculty Lecturer Award "for a combination of outstanding research contributions, scholarship, scientific leadership, broad contributions to enriching the intellectual stature of UCSB, and for his outstanding role as a teacher and mentor."

Awschalom's contributions to the area of spintronics include considerable devotion to educating students and young researchers in this emerging area of research. He has organized and participated in several international "Spintech" schools on spintronics and quantum information technology, intended to give students a broad overview of the field.

Wang, whose doctoral research at UCSB focused on robotics, is the chairman and chief executive officer of InTouch Health, which he founded in 2002. The Goleta company develops pioneering remote-presence robot systems that enable health care professionals to provide more effective and efficient care by allowing them to "be in two places at once." In 2008, InTouch Health received Deloitte's Technology Fast 500 Award, in recognition of the fastest growing technology companies in North America. Wang's company was ranked number 39.

In 1989, Wang founded Computer Motion, the company that pioneered surgical robotics. He was the principal architect and inventor of the voice-controlled robotic arm called AESOP, the first FDA-cleared surgical robot, as well as the ZEUS robotic surgical system, which performed the world's first transatlantic surgery. He has more than 40 publications and over 70 patents in the areas of robotics and computers.

Among his many honors and awards, Wang was recognized in 2000 by the National Academy of Engineering as one of the nation's top young engineers and selected to participate in its Frontiers of Engineering program. In 2005, Ernst & Young named him a Finalist for their Entrepreneur of the Year award. In 2007, he was recognized by UCSB's College of Engineering with its Venky Narayanamurti Entrepreneurial Leadership Award. Wang's involvement with the UCSB campus and the College of Engineering include his continuing membership on the Electrical & Computer Engineering and Mechanical Engineering Advisory Board.

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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.