## **Engineering professor receives Navy 'Young Investigator' Grant**

## Irvine, Calif., May 1, 2002

Peter J. Burke, assistant professor in the <u>Department of Electrical and Computer Engineering</u>, was awarded a highly selective Young Investigator grant by the Office of Naval Research. Burke will receive \$300,000 over three years, the maximum award. His research proposal, "Quantum Information and Noise Studies With Semiconductor Nanodevices," was one of only 10 percent selected this year.

Burke works in an emerging area called nanotechnology, in which researchers create novel electronic and optical devices and materials the size of a few atoms.

"My team is approaching nanotechnology from two directions," Burke said. "We are using standard semiconductor techniques to make the next generation of computers, cell phones and fiber-optic communications systems. We also are using chemistry to assemble new devices and materials one atom at a time."

He hopes eventually to fabricate a computer with one bit per atom and to use the laws of quantum physics to manipulate, transmit and store information in new and more powerful ways.

The Young Investigator Program supports basic research by exceptional faculty at U.S. universities who received a Ph.D. or equivalent degree within the preceding five years. Young Investigators are chosen on the basis of prior professional achievement, the submission of a meritorious research proposal and evidence of strong support by their respective universities. This year, the ONR received 260 proposals and awarded 26 Young Investigator grants totaling \$8.4 million.

The Henry Samueli School of Engineering encompasses the departments of civil and environmental engineering, chemical engineering and materials science, electrical and computer engineering and mechanical and aerospace engineering. The school also is home to numerous research centers, including the Center for Pervasive Communications, National Fuel Cell Research Center, Integrated Nanosystems Research Facility and Center for Biomedical Engineering. In addition, the school is an integral part of the California Institute for Telecommunications and Information Technology, one of three California Institutes for Science and Innovation. Additional information is available at <a href="https://www.eng.uci.edu">www.eng.uci.edu</a>



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