Cal Poly Engineering Announces Faculty Awards and Outstanding Staff

SAN LUIS OBISPO – Cal Poly Engineering announced the recipient of a Raytheon faculty award and outstanding College of Engineering staff awards for 2011-12.

Biomedical engineering professor Kristen Cardinal received the Raytheon Excellence in Teaching and Applied Research Award and $1,000.

Outstanding Staff awards were presented to Ron Leverett, an equipment systems specialist in civil and environmental engineering, and Eric Pulse, an equipment technician in mechanical engineering. Both staff members received $500 with their awards.

Cardinal was recognized for her tissue engineering research. Under her direction, undergraduate and graduate students grew new blood vessels from adult human cells.

“We have a goal of growing tissue-engineered blood vessels to use as preclinical testing systems. Currently we are working on creating a new scaffold — the tube they grow in — for our blood vessels as well as new methods for analyzing the vessels,” Cardinal said.

Cardinal has also increased collaboration with cutting-edge companies to assure high employment for biomedical engineering grads.

Cardinal graduated summa cum laude in general engineering from Cal Poly in 2003. After receiving her doctorate from the University of Arizona, Cardinal joined Cal Poly’s Biomedical Engineering Department in 2007. Research activities now play a large role in her teaching. She said her research interests — tissue-engineered "blood vessel mimics," bioreactor design, stent development and stent healing capabilities — figure prominently in two senior-level classes.

At Cal Poly, the population of biomedical engineering students has grown from several dozen students in 2006 to more than 450 today. “It’s been really exciting to see more and more students absorbed by the material,” Cardinal said. “And as the demand for biomedical research grows, so does the demand for biomedical engineers.”
Leverett is in charge of a network of more than 200 computers.

"Ron is always willing to assist students, staff and faculty no matter how busy they are," said Gregg Fiegel, civil engineering professor. "This is no easy task. We have 900 students, and more than 30 faculty and four staff members who rely heavily on all of the computer resources: workstations, software, networks, printers, scanner, servers and more. We don't worry about computer problems, because we know we have Ron. That has made our department among the most efficient and productive around."

Pulse is widely admired for revving up the Mustang '60 machine shop to full throttle.

“He established the shop from scratch, including creating the layout, purchasing all of the equipment, hiring the student staff with George Leone and setting policies for use of the facility," said Andrew Davol, department chair.

Pulse manages the shop located in the Bonderson Project Center, where he works with students and faculty from across the university. He also assists with projects in the mechanical engineering labs, currently leading efforts to get a new water turbine experiment running for the undergraduate fluids lab. He also teaches the sophomore CAD class.

Pulse and the Mustang '60 shop have made it possible to secure more than $500 million in project funding over the last three years, according to the department.

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