In this edition of Cal Poly Magazine, we present to you many examples of students, faculty and alumni embracing the learn-by-doing methodology and finding ways to improve the world through applied research.

Natural Resources Management students and professors are turning burned areas of Cal Poly's Swanton Pacific Ranch near Santa Cruz into a living laboratory. A Cal Poly alumna is developing a new gadget that could help children be more active and healthy – and that caught the attention of President Barack Obama this summer. And see our cover story for a look at cutting edge research projects happening in each of Cal Poly’s six colleges.

In spite of cutbacks in state funding and the tough economic times we face, the heartbeat that drives Cal Poly – our learn-by-doing philosophy – is still very much alive.

We trust you will take great pride as you read about it in our Winter 2009 edition of Cal Poly Magazine.

Please let us know. You can e-mail us your comments at mlazier@calpoly.edu.

Leah Kolt
Matt Lazier

CAL POLY TEAM TAKES SILVER IN AIRCRAFT DESIGN CONTEST

STUDENT AIRCRAFT DESIGNERS from Cal Poly continued to soar at the American Institute of Aeronautics and Astronautics (AIAA) annual Undergraduate Team Aircraft Design Competition. The team took second place in the competition, which drew 22 international entries.

Cal Poly's Hummingbird Aeronautics won the silver for its design of the Tersus, a 150-seat “environmentally compatible” transport aircraft.

Hummingbird Aviation – which included aerospace engineering students Ashley Evans, Kevin Lovell, Markus Purdoe, Jason Stavros and Jonathan Wilson – received a $1,500 award from the AIAA Foundation for their second-place design.

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Virginia Polytechnic University won $2,500 for first prize, and Georgia Institute of Technology received a $1,000 award from the AIAA Foundation for their second-place design.

K-12 TEACHING WITH CAL POLY TO IMPROVE

CAL POLY HAS RECEIVED a shared $12.6 million grant to strengthen the quantity and scale of successful techniques in K-12 teacher preparation with special focus in math, sciences and special education.

Cal Poly is partnering with CSU Monterey Bay and CSU Bakersfield in the grant program, which will focus on high-needs schools in Central California.

The $12.6 million grant will be spread over the next five years to fund the Central California Partnership for Teacher Quality Programs (CCP-TQP).

The Tulare County Office of Education and the Kern County Superintendent of Schools are also participating in the program.
In this edition of Cal Poly Magazine, we present to you an innovative approach to learning, particularly in the realm of technology and education.

The essence of Cal Poly’s learn-by-doing philosophy — its core value — is still very much alive. Learn-by-doing was a core value for Cal Poly when it was founded in 1907. “It was easy for us to excel,” said one of our alumni. “We learned by doing.”

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We recently surveyed nearly unanimous sentiment: Cal Poly’s learn-by-doing educational experience was crucial to their professional success. This didn’t happen because we were smarter or worked harder; it was simply because Cal Poly’s incredible training course with 250 new hires from around the world.

As Honored Alumnus Darran Littlefield said, “After being hired by a large consulting company, I was placed in an intensive training course with 250 new hires from around the world. I learned by doing.”

In spite of cutbacks in state funding and the tough economic times we face, the heartbeat that drives Cal Poly — our students, faculty and alumni — is turning burned areas of Cal Poly’s Swanton Pacific Ranch near Santa Cruz into a living laboratory. A Cal Poly alumna is developing a new gadget that could help children be more active and healthy — and that caught the attention of President Barack Obama.

We’re proud of the work our students, faculty and alumni are doing every day to examine real-world problems, question assumptions and find practical solutions. That comes to life in Cal Poly’s laboratories and in the field, where things are the way they are — and whether we can make them better.

The essence of that philosophy is the act of questioning why things are the way they are — and whether we can make them better. The essence of that philosophy is the act of questioning why things are the way they are — and whether we can make them better.

Please let us know. You can e-mail us your comments at editor@calpoly.edu.

#CHECKOUT#ALOOLYS&ACEBOOK#TWITTERAND9OU4UBESITES

UNIVERSITY NEWS

FOR THE 17TH YEAR IN A ROW, Cal Poly has been rated the best public-master’s university in the West by U.S. News & World Report, in its 2010 America’s Best Colleges guidebook. Cal Poly moved up four spots, from 10th to sixth, in the magazine’s overall list of the West’s best universities, including both public and private institutions, that provide “a full range of undergraduate and master’s-level programs but few, if any, doctoral programs.”

U.S. News ranks colleges that grant doctoral degrees, such as those in the University of California system, in a separate category. Cal Poly President Warren J. Baker observed, “This is a wonderful tribute to the quality of our faculty and students. This ranking should be reassuring to employers, who have already expressed to us a high regard for our graduates. Because of Cal Poly’s renowned learn-by-doing teaching methods, employers know that our graduates are ready to contribute on day one.”

Cal Poly’s College of Engineering program ranked third among public engineering programs, bested only by the U.S. Military and Naval Academies, for schools whose highest degree is a bachelor’s or master’s.

CAL POLY TEAM TAKES SILVER IN AIAA UNDERGRADUATE DESIGN COMPETITION. The student aircraft design team from Cal Poly, entrusting Ashley Evans, Kevin Lovell, Marko Pavlovic and Georgia Institute of Technology, received a $1,000 award for finishing third.

Astronautics (AIAA) annual Undergraduate Team Aircraft Design Competition, which drew 22 international entries.

For more information about sustainable practices at Cal Poly, visit http://www.facilities.calpoly.edu/sustainability/index.htm.
FINANCE MAJOR IS 2009 CAL POLY HEARST SCHOLAR

PHONG V. DANG, a finance major in Cal Poly’s Orfalea College of Business, is the 2009 California Polytechnic State University recipient of the prestigious William Randolph Hearst CSU Trustees’ Award for Outstanding Achievement.

Dang was among 23 students selected by the California State University to receive the 2009-10 William R. Hearst/CSU Trustees’ Award for Outstanding Achievement. The winners, one from each campus in the system, were honored by the trustees in September at the CSU Office of the Chancellor in Long Beach.

The award is among the highest forms of recognition for student achievement in the CSU. Hearst Scholars demonstrate superior academic achievements, community service, financial need and the ability to overcome adversity.

Dang, who transferred to Cal Poly in fall 2008 from Santa Rosa Junior College, is working on a bachelor’s degree in business with an emphasis in finance management. Now a junior with a 3.70 GPA, he plans to complete his degree in business, gain career experience and then return for an MBA. Ultimately he hopes to pursue a career in finance.

Dang first arrived in the United States from Vietnam with his father and two younger brothers in 2005 at the age of 21. At Santa Rosa Junior College, despite language and cultural differences, he earned the Dean’s Highest Honor every semester while also working as a computer and math lab assistant.

In 2006, his father and brothers moved to Houston, where his father works supporting the family and sending funds to Phong’s mother, who is still in Vietnam. Dang stayed behind in California to finish his studies. The family hopes Dang’s mother can join them in the United States in the next two years.

For details on Dang and the other 2009-10 Hearst Scholarship winners, visit the CSU Web site at www.calstate.edu.
**FIRST-PLACE AWARDS ABOUND FOR SOCIETY OF WOMEN ENGINEERS**

CAL POLY’S CHAPTER of the Society of Women Engineers showed well at the organization’s annual national conference in October with four first-place awards.

The Cal Poly group brought home a top honor for Outstanding Outreach Event/Series for its “Building an Engineer Day.” Held in the fall, the event brings middle school students to campus for hands-on laboratory experience in several engineering disciplines, to give the youngsters an idea of the career possibilities in engineering.

In addition, the group took first place for Outstanding Collegiate Section, Gold Level.

Cal Poly SWE also had two teams competing in the Boeing-sponsored Team Tech Competition at the conference.

One team worked with Lockheed Martin on a Hinge Moment Measuring System (lead by Nadia Shrabati, a 4th year BMED), and the other worked with Walt Disney Imagineering on a Vertical Drop Test Tower (lead by Nate Hager, 5th year ME, and Eric Davis, 4th Year LAES).

The Cal Poly teams tied for first place in what was the first time two teams from the same school competed in the SWE Nationals.

**IN REMEMBRANCE**

FRANK CALABRESE, a Cal Poly graduate and longtime university employee, died Sept. 19, 2009, in San Luis Obispo after battling brain cancer. He was 62.

Calabrese attended St. Mary’s Elementary School, Bellarmine College Preparatory, Gavilan Community College, and Cal Poly.

For the past 30 years, Frank devoted his energies and talents to Cal Poly, working in various capacities, including instructor in the field of industrial arts and technical specialist in fire and security alarms systems. He is survived by his wife, Pamela Logan, and many siblings, nieces, nephews and cousins.


Sandlin received his master’s degree in aeronautical engineering from the Air Force Institute of Technology while stationed at Wright Patterson Air Force Base near Dayton, Ohio, and his doctorate from the University of Arizona in 1967. Between March 1967 and February 1968, he served as a flight test officer for a fighter wing in Vietnam. In 1969, he accepted a position as a professor of aeronautical engineering at Cal Poly, where he started the departmental master’s program with research grants from NASA. He served as department head during the late 1980s and early ’90s, retiring in 1992.

He is survived by his wife of 50 years, Terri, three children and seven grandchildren.

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