

NATIONAL ACCOLADES FOR ARCHITECTURE AND ENVIRONMENTAL DESIGN PROGRAMS

CAL POLY'S COLLEGE of Architecture and Environmental Design continues to shape exceptional careers. The college received top rankings in various categories in the 2007 *DesignIntelligence* survey of the nation's best architecture and design schools.

The undergraduate architecture and landscape architecture programs were chosen as "Best in Nation" for 2007 in a poll of Western practitioners. "We are particularly proud of our rankings in this year's *DesignIntelligence* report because it's based on responses from practitioners who recognize the strong skills of our graduates," said Landscape Architecture Department Head Margarita Hill.

Other top rankings include the landscape architecture program, ranked fifth nationally, moving up one position this year to tie with three other universities. The program also tied for first nationally with Kansas State and the University of Georgia in security design principles and ranked in the top five in computer applications and sustainable design practice.

The architecture program tied for second nationally with Texas A&M in construction methods and ranked third in analysis and planning. The undergraduate architecture program was ranked sixth along with two other universities in an overall ranking.

"This report gives much resonance to the integrity of our pedagogical responsibilities," said Architecture Department Head Henri de Hahn. "Our learn-by-doing philosophy combines common sense and intellectual curiosity, and our graduates are well positioned to become the next team players in a world of increased complexity." □

'PERHAPS THE MOST IMPORTANT GAUGE OF THE EFFECTIVENESS OF CAL POLY'S EDUCATIONAL PROGRAMS IS HOW WELL OUR GRADUATES DO, THEIR SUCCESS IN THE REAL WORLD'

— CAL POLY PRESIDENT WARREN J. BAKER

CAL POLY IS BEST IN WEST, ENGINEERING NO. 1 NATIONALLY

FOR THE 15TH 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 2008 *America's Best Colleges* guidebook.

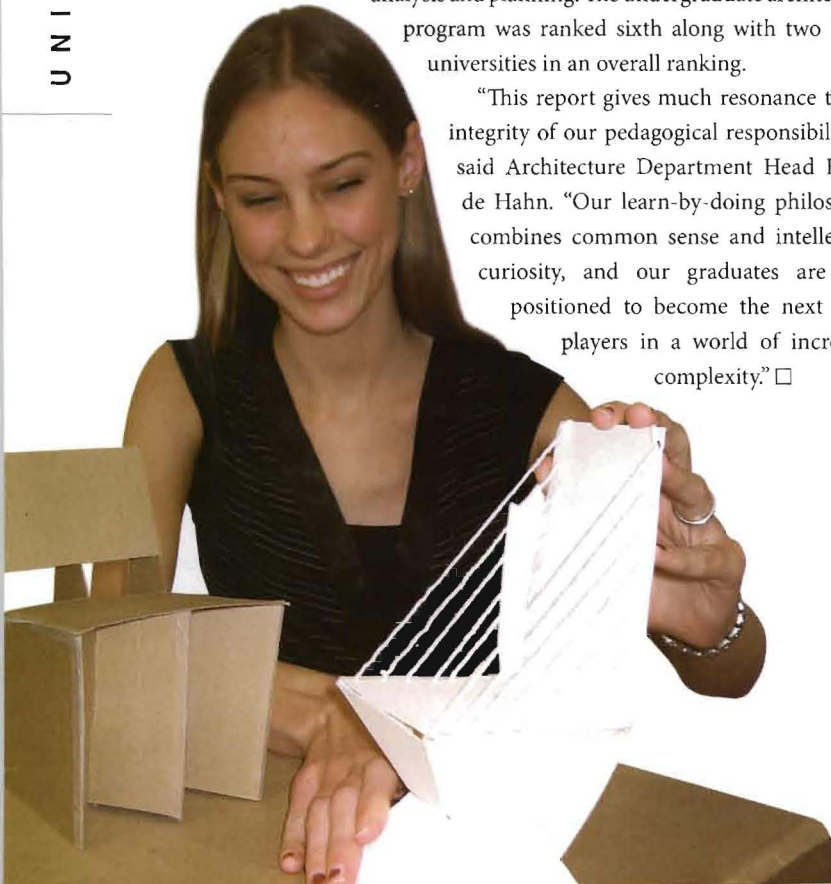
Cal Poly ranked 10th in the magazine's overall list of the West's best universities, including both public and private institutions, that provide "a full range of undergraduate and master's-level programs but few, if any, doctoral programs."

U.S. News ranks colleges that grant doctoral degrees, such as those in the University of California system, in a separate category.

"Perhaps the most important gauge of the effectiveness of Cal Poly's educational programs is how well our graduates do, their success in the real world," said Cal Poly President Warren J. Baker. "We hear that our graduates are doing great things and we take pride in that. Getting a ranking in *U.S. News* for the 15th straight year reflects the success of our gifted faculty in preparing students with an emphasis on learn by doing."

This year, Cal Poly's College of Engineering was named the No. 1 public engineering program in the nation in the magazine's Best Undergraduate Engineering Programs – for schools whose highest degree is a bachelor's or master's.

A number of College of Engineering programs also ranked high in the Best Undergraduate Engineering Programs in their individual specialty categories. Cal Poly's computer, electrical, industrial/manufacturing and mechanical engineering programs were each ranked as the top program at a public university in their respective specialty categories. Other engineering programs that ranked well are civil and aerospace at No. 2. □



ROBOTICS CLUB NO. 1 AT INTERNATIONAL ROBOGAMES

A ROBOT DESIGNED AND BUILT by Cal Poly students recently won the Robo-Magellan Competition at the International RoboGames held in San Francisco.

Dubbed "Spybot," the robot won the event by autonomously navigating an outdoor course with the use of GPS, camera, compass, encoder, and ultrasonic range finder. Spybot completed a nearly perfect last run in just over a minute and a half, clocking in at a record 1:31, substantially lower than the next runner-up time of 2:12.

The total straight-line distance between the course beginning and end was less than 300 feet. However, the route taken by the robots may be significantly longer due to obstacles.

The winning Robotics Club team members included mechanical engineering seniors Scott Barlow from Corona, Tyson Messori from Ventura, Chi-Yeh (William) Hsu from Mountain View, mechanical engineering graduate student Terry Cooke from Los Osos, and computer engineering senior Patrick McCarty from Simi Valley. Chris Clark, assistant professor of computer science, served as faculty advisor to the team.

Held twice each year, the Robo-Magellan competition reflects the growing importance of autonomous navigation for both military and commercial applications. The contest requires entrants to design and build a robot capable of GPS waypoint navigation, obstacle detection and color tracking. □

SUPPORT IS HIGH FOR ORFALEA COLLEGE OF BUSINESS

THE ORFALEA COLLEGE OF BUSINESS wound up the academic year on a high note. Fundraising efforts after 11 months were 116 percent above goal.

The college raised 35 of 40 new named scholarship endowments at \$25,000 each for incoming freshmen and the first named endowed scholarship of ten at \$100,000 each for transfer students. Both types of scholarship gifts are matched one-to-one by Orfalea matching funds.

In addition, accounting firms Ernst & Young, Deloitte and KPMG have pledged to create new term faculty fellowships in accounting at \$125,000 each over five years. □



CAL POLY CONCRETE CANOE PLACES FIFTH IN THE NATION

CAL POLY SOCIETY OF CIVIL ENGINEERS students paddled to fifth in the Concrete Canoe Competition, a year long contest involving design know-how, project management, engineering expertise, oral and written presentations, endurance, imagination and sheer muscle.

Approximately 220 colleges across the United States competed in the contest, held at the University of Washington on June 14-16. Cal Poly's team was led by civil engineering seniors Jason Kump from Nipomo, John Layous from King City, Jason Marshall from San Luis Obispo, and Skye Orvis from Livermore.

"One of the highlights was winning the design award," said Marshall. "It really represented the time, effort, and teamwork

CAL POLY'S WINNING FORMULA: FACULTY SUPPORT, STUDENT INTEREST, AND THE SPIRIT OF INNOVATION

that went into the project. We also won a race for the first time. Our coed sprint team placed first by a tenth of a second—it literally came down to a photo finish."

This was the second year in a row that Cal Poly scored well at the national level, coming in second last year. Cal Poly's winning formula, according to Marshall, includes faculty support, student interest, and the spirit of innovation. □



(L-R) Lt. Gov. John Garamendi and President Warren Baker in front of the Mustang Memorial Plaza (Photo by Scott Roark)

LT. GOVERNOR GARAMENDI COMES TO CAL POLY

CALIFORNIA RISKS DECLINE in its economic competitiveness unless it renews its commitment to education, especially in science, technology, engineering and mathematics (STEM) disciplines, according to Lt. Gov. John Garamendi, who hosted a forum on campus July 17.

Part of the Lt. Governor's "Listening Tour," which includes public university campuses around the state, the event featured panelists who discussed higher education's role in the state's economy, along with some 200 attendees from campus and the community.

"We are fortunate to have a lieutenant governor who understands that education is the pathway to a higher quality of life," said Cal Poly President Warren J. Baker, when he introduced Garamendi, who is a Berkeley graduate with an MBA from Harvard.

Garamendi joined President Baker in cautioning that unless the state improves rates of educational participation and degree completion, it risks a sharp decline in per capita income over the next decade. But he's looking to universities such as Cal Poly to prevent this from happening.

"Cal Poly is a powerhouse for science, technology, research and education – collectively known as STEM," he said, "and how these four elements factor into the state's economy is well known."

Los Osos middle-school teacher Diane Barnhart, one of the panel members, told the forum the first thing that needs to be done

to fill the STEM work force pipeline is to "teach the teachers."

Provide teachers with the release time and the resources they need – including intensive content-specific refresher training. In turn they can inspire students to study math and science and become engineers and scientists, she said.

Panelist and fourth grade teacher Jaime Cuello of Guadalupe immerses his students in a college-bound classroom culture, constantly promoting university attendance to his nine-year-olds, about half of whom are labeled "migrants."

"When they wear that Cal Poly sweatshirt, it tells them 'I can be there,'" he explained.

His classroom is festooned with campus banners and even the pencils are imprinted with school names. Instead of getting an "A," the student receives a "Cal Poly" stamp on his or her paper – or the name of whatever campus they hope to attend.

EXCERPTS FROM THE REMARKS OF THE OTHER PANELISTS FOLLOW:

Julian Crocker, *Superintendent of San Luis Obispo County Schools*

"We need to have teachers like Diana and Jaime in front of every student in the state. But as long as California stays in the middle of the state rankings in terms of investment in education, this isn't going to happen."

José Ortiz, *President of Allan Hancock College*

"Our labor market studies showed that there is a need in San Luis Obispo for dental hygienists, so we wanted to develop a program [but lacked the space]. We are partnering with K-12 to provide the classroom space. Our studies show the need

THE EVENT FEATURED PANELISTS WHO DISCUSSED HIGHER EDUCATION'S ROLE IN THE STATE'S ECONOMY

for other well-paying jobs in the county, too, such as nurses, medical assistants and truck drivers.”

Kristen Yetter, *President of Promega Biosciences*

“We need to recognize the importance of the teaching profession and compensate appropriately. We should pick up the pace on innovation, equipment, real-world applications, and bring in national and international scholars to work with our students.”

James Becker, *Vice President, Diablo Canyon Power Plant*

“We used to hire from the Nuclear Navy, but this source of manpower has dried up since the Cold War ended. The nuclear industry is starting to expand again, so there is a growing opportunity for college students who study nuclear engineering.”

Dave Garth, *President of the San Luis Obispo Chamber of Commerce*

“The productivity expectations in education should match those of the business world. I’m very worried that students entering the work force today don’t fully appreciate workplace performance standards. It takes a different set of skills to train and manage this new generation.”

Phil Bailey, *Dean of Cal Poly’s College of Science & Mathematics*

“We need a differential funding mechanism for polytechnic higher education programs. The antiquated formulas for funding must be updated. We must invest more in instruction, in facilities for research and in studio classrooms that encourage collaborative learning. We need more state investment in the polytechnic programs.”

Brandon Souza, *President of the Cal Poly Associated Students, Inc.*

“I agree that students must increase their understanding of workplace demands and that developing a strong work ethic is a high priority for graduates hoping to compete in today’s economy. We also need to continue to invest in education and to engage more students in the STEM areas.”

After listening to the panelists and comments and questions from the audience, Garamendi concluded that California has a serious problem with under funding education. “We heavily fund prisons and seriously under fund education,” he said.

He suggested that perhaps one solution is “to reframe our thinking.” Instead of talking about “education,” we need to make the case for “training our work force.” □

HONORARY DEGREES BENTLY, BONDERSON, AND ORFALEA

THREE HONORARY DEGREES were awarded to outstanding alums and supporters during this year’s Spring Commencement, held last June in Alex G. Spanos Stadium.

Donald E. Bently received an honorary degree of Doctor of Science in recognition of outstanding achievements in business, engineering and sustainable agriculture practices, and service in support of engineering education. Bently is president of the Bently Pressurized Bearing Co. and founder, former chairman and CEO of Bently Nevada Corp., the world’s leading supplier of monitoring instrumentation and services (now part of GE Power Systems).

Paul R. Bonderson Jr. (EL ‘75) received an honorary degree of Doctor of Science in recognition of his outstanding achievements in business and engineering and his leadership and support of project-based learning. Bonderson is currently president of Lone Oak Ventures LLC, and the former vice president of engineering and the co-founder of Brocade Communications Systems Inc., a leading provider of infrastructure solutions for Storage Area Networks. He is credited with developing the company’s product strategy, business strategy and business plan.

Paul Orfalea received an honorary degree of Doctor of Humane Letters in recognition of his outstanding achievements as a business leader and entrepreneur, his service to the cause of education and early childhood education, and the inspiring example he has set in overcoming personal adversity to achieve success and make important contributions to society. Orfalea is the founder and former chair of Kinko’s Inc. □

