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UNIVERSITY OF SAN DIEGO

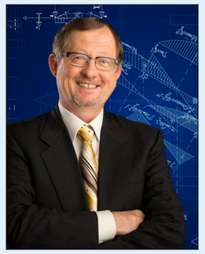
FALL 2014

IMAGINE • INNOVATE • INSPIRE

SHILEY-MARCOS SCHOOL OF ENGINEERING

To imagine, innovate and inspire

A message from Shiley-Marcos School of Engineering Founding Dean Chell Roberts



I am thrilled to present the new issue of the official magazine from USD's Shiley-Marcos School of Engineering, *I³*, which stands for "imagine, innovate and inspire." With all of the exciting things taking place, I hope you will agree that these words capture our vision of engineering. Our growth has been exponential! This past May, we celebrated the graduation of 64 newly minted USD engineers — our biggest group yet. And we have over 400 students currently enrolled in our school!

This issue describes some of the ways we are changing to accommodate this growth: new faculty, new studio and learning spaces and new curriculum options. But one thing will remain the same: Our students will continue to receive a values-based education and personalized attention from our dedicated faculty. Truly, that is what inspired me to become the school's inaugural dean. And our collective dedication to that goal continues to inspire me every day.

The first feature story in this issue provides an introduction to our five new exceptional faculty members. Two are mechanical, two are industrial and the fifth is a software engineer. I am very pleased that two of them are women, further increasing our strong representation of women engineering faculty members.

The next story presents a vision for the future and outlines the motivation for renovating Loma Hall and enhancing our curriculum. If you visit campus, you'll see that the bookstore and mailroom have moved to make room for new engineering "garages" and learning spaces, designed to inspire student teams to imagine and innovate everything from new ideas to functional prototypes. New curricular options available in Fall 2015 will allow more flexibility for students and will include specializations in software engineering, bioengineering and sustainability.

The third feature highlights the many ways that our engineering students and faculty are using their knowledge and skills to help communities around the globe. I was delighted when the engineering student-led Rice Pollution Solution project won the grand prize in USD's Social Innovation Challenge. Assistant Professor of Industrial and Systems Engineering Truc Ngo, PhD, and two engineering students also traveled to the Dominican Republic to design a sustainable water filtration system for a local community in that region. And Associate Professor of Industrial and Systems Engineering Bradley Chase, PhD, brought the Engineers Without Borders student chapter to Tijuana to assess a collaborative project with Amor Ministries. This dedication to compassionate service is a defining feature of a USD education.

Of course, all of this is made possible by the extraordinary generosity of Mrs. Darlene Shiley. Her gift is a true inspiration to all of us who have the privilege of working here.

As we grow, we want to stay in contact with our alumni and friends. Please "friend" us on Facebook at USDEngineering, visit our website for upcoming events and make sure we have your updated contact information. We invite you to join us as we imagine, innovate and inspire our engineering future.

Chell Roberts, PhD
Founding Dean, Shiley-Marcos School of Engineering

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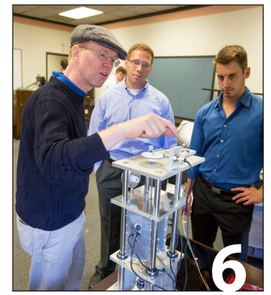

class notes

shiley-marcos school of engineering
Chell Roberts, PhD
Founding Dean
croberts@sandiego.edu

Elisa Lurkis
Director of Development / Alumni Relations
elurkis@sandiego.edu

magazine staff
Julene Snyder
Editor / Senior Director, University Publications

Barbara Ferguson
Senior Creative Director, University Publications

writers
Ryan T. Blystone
Elisa Lurkis
Tim McKernan
Mike Sauer
Julene Snyder

contact
University of San Diego
Shiley-Marcos School of Engineering
Loma Hall
5998 Alcalá Park
San Diego, CA 92110-2492
(619) 260-4627

www.sandiego.edu/engineering
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engineering news

One Brilliant Career

Qualcomm VP first Alumni Honors engineering recipient

by Tim McKernan

The $20 million gift from Donald and Darlene Shiley that created the Shiley-Marcos School of Engineering paves the way for generations of Torero engineers. But the sixth school at USD — that, along with the college, provides the academic muscle that consistently ranks the university among the nation's elite — already has its first star.

Not surprising really. The school may be new, but the study of engineering at USD is not. And last April, Mauricio López-Hodoyán '93 (BS/BA), '95 (IMBA) became the school's first recipient of the Hughes Career Achievement Award during the university's annual Alumni Honors event.

If you have a smart phone, or tote a tablet, you have a connection with López- Hodoyán, Qualcomm's vice president of strategy and analysis. The electronic nerve center of that device was almost certainly made by Qualcomm.

The challenge of the team López- Hodoyán heads up is to continually assess the rapidly shifting wireless landscape to ensure those gadgets do what consumers expect them to do — work that is a key driver of the strategy of a multi-billion dollar company. Especially now, gauging the practical applications of the emerging technology of so-called "wearables," López-Hodoyán and his team quite literally help map the road that transforms science fiction to commodity.

The son of Mexican immigrants who sacrificed much to give their children the best — including sending five of six to USD — López-Hodoyán followed in his father's footsteps to become an engineer. But unlike his dad, he sought something more than a steady job.

The Shiley-Marcos School of Engineering's first Hughes Achievement Award honoree, Mauricio López-Hodoyán '93 (BS/BA), '95 (IMBA) , relaxes with his wife, Gabriela, and children.

NICK ABADILLA

López- Hodoyán first took his dual degree in business and engineering to the Department of Defense. Wanting more responsibility and more intensity, he got both when he joined Qualcomm just as it was emerging as an industry leader.

Forecasting the future of the volatile wireless technology business may seem a daunting responsibility, but it conforms perfectly to his own professional philosophy. Unlike some industries where "busy" is a measure of effectiveness, López- Hodoyán sounds very much the engineer when outlining the expectations for his team.

"Never," he says, "confuse effort with results."

Incredibly, López- Hodoyán may even be busier at home than at the office. He and his wife, Gabriela, are the parents of two young children, Mauricio and Valeria. In what passes for spare time, Lopez-Hoyoden is an avid indoor soccer player. Whether the day is filled with work or play or both, when he looks in the mirror, he sees the reflection of his own parents looking back at him, a hard worker whose ultimate goal is to make life better for his own family.

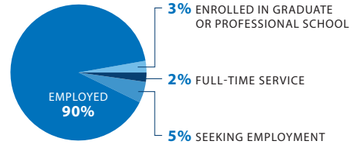
To see videos celebrating all the 2014 Alumni Honors recipients, including Mauricio López-Hodoyán, go to www.sandiego.edu/alumni/honors/honorees.html.

Employment Numbers

USD Career Services compiles data on students completing their undergraduate degrees. The following data, gathered from multiple sources, reflects the initial career destination for 75 percent of engineering majors who graduated between August 2012 and May 2013.

Current Status

95% of 2012-13 respondents are employed or are in graduate school.



Sample Employers of Graduates

Broadcom
Genentech
General Atomics
Jet Propulsion Laboratory
Leidos
Lockheed Martin
PepsiCo
Shell Oil Company
Qualcomm Inc.
US Navy
Western Digital Technologies, Inc.

Annual Salaries

$63,990 Average Salary

$61,500 Median Salary

$24,000-$120,000 Salary Range

Full-Time Employment by Industry

65%	Engineering and Design
19%	Finance and Business
7%	Public Services
3%	Arts, Media and Entertainment
3%	Information Technology
3%	Law

Internship

Engineering students who participated in an internship while at USD **80%**

[news] BRIEFS

Alumni Events Near and Far Shiley-Marcos School of Engineering Dean Chell Roberts and Director of Development Elisa Lurkis hit the road over the past year to meet engineering alumni and friends all over the country as well as at USD. Events were held at O'Toole's Pub on campus, and in targeted cities including Tempe, Ariz., Seattle, Wash. and Chicago, Ill. Dean Roberts also was an enthusiastic participant in the inaugural multi-city Torero Tour, which had stops in Phoenix, Ariz., San Francisco and Los Angeles. Stay tuned for more in 2014-2015!

New Executive Advisory Board Dean Roberts has created a new executive advisory board for the School of Engineering. The board will help with career placement, industry partnerships, as well as fundraising for scholarships and new spaces for hands-on projects. Current board members include: Matthew Craig '03 (Meijer Inc.), Klaus Etzel and David Furuno (General Atomics), Emiliano Gallego '00 (Pegasa), Minoo Gupta (Citrix), Henry Eisenson (Introtech), Carlos Nunez (CareFusion), Charles Pateros (ViaSat Inc.), Becky Vincent (Vincent Enterprises) and Jarvis Tou (Enevate Corp.).

Kathleen Kramer Nominated for Athena Pinnacle Award Professor Kathleen Kramer was nominated for the prestigious Athena Pinnacle Award, which recognizes leaders who pave the way for women and girls in STEM fields. When Dr. Kramer came to USD in 1991, she was the first and only female engineering faculty member and one of a handful at the larger universities in the nation. Today, thanks in large part to her leadership, 33 percent of USD's engineering students are female, far higher than the national average.

At this spring's "Evening with Industry" event, students, faculty and alumni came together with representatives from a variety of top companies to network and discuss career opportunities.

The Places They'll Go

Evening with Industry provides atmosphere infused with possibility

by Ryan T. Blystone

At the climax of her powerfully poignant speech on the value of self-belief, "An Evening with Industry" keynote speaker Delores Dos Santos scanned the audience for a volunteer to help her define the word "passion," and what it means to them.

She didn't know the majority of the USD Shiley-Marcos School of Engineering students, faculty and staff in attendance at the March 2014 event, but a familiar face smiled from the audience. Chell Roberts then stood up and likened it to what he's experiencing in his new role as the school's founding dean.

"Our students think about passion, they dream about it, they wake up in the night with it on their mind. They're excited about it, it's what keeps them going and they want to do it, which is like building a school of engineering," he said.

The event, held in the Joan B. Kroc Institute for Peace and Justice, was organized by USD student Society of Women Engineers (SWE) student leaders, including President Harmonie Edelson, and Truc Ngo, PhD, faculty advisor and assistant professor of industrial and systems engineering. It consisted of a career fair with nine top companies — Illumina, NuVasive, Pratt & Whitney AeroPower, SPAWAR, Trane, General Atomics, L-3 Communications, ThermoFisher Scientific and Zimmer Dental — as well as extended networking opportunities at dinner and a career-focused pep-talk presentation by Dos Santos, senior director of engineering for Edwards Lifesciences.

Rachel Michel, a junior industrial and systems engineering major, said the career fair was a chance to job search while simultaneously working on her networking skills. She felt that a pair of conferences she'd attended previously via the SWE helped to lay the groundwork for the evening: "Those networking opportunities were good practice for me," she said, before returning to conversations with company representatives regarding industrial engineering opportunities.

One way for the USD student engineers to ease any lingering nervousness was to be sure to meet with those who are well acquainted with all things USD. Three engineering alumni — Ashlee Enriquez '09 (L-3), Chad Loftis '05 (NuVasive) and Colleen Sevier '13 (General Atomics) — were on hand to represent their companies at the fair. They stayed for dinner to continue the conversation and provide advice to current engineering students.

After dinner, Dos Santos, who has more than 30 years of experience in the textile, medical device and pharmaceutical industries, delivered a three-point plan for accelerating one's career: Have passion for what you do, continuously practice leadership and believe in yourself. She then screened a Ted Talk by Ivan Joseph, a champion soccer coach and athletic director at Ryerson University, who spoke on "The Skill of Self-Confidence."

The night was really about matching student skill sets with company needs. Dos Santos' talk spoke to the importance of developing and mastering soft skills to complement technical expertise.

Meaningful as the evening with industry was, the potential for even greater synchronicity is definitely there, particularly as USD engineering students continue their academic path to graduation, into the workforce and the future.

RYAN T. BLYSTONE

faculty notes

Every full-time member of USD's Shiley-Marcos School of Engineering faculty has a breadth of practical experience as well as a strong commitment to student learning and scholarship. The quality of our faculty is one of the reasons the program is so highly rated among its peer insitutions.

NICK ABADILLA

Bradley Chase, PhD, associate professor of industrial and systems engineering, completed a study and paper on EMG and electrogoniometer measures of upper extremity forces during prolonged tablet computer use. He was selected by graduate students in the Supply Chain Management Program as a "professor of impact." As the advisor of USD's new Engineers Without Borders (EWB) student chapter, he took a group of EWB students to Tijuana to introduce them to the humanitarian work of Amor Ministries. He is also the faculty advisor for the Institute of Industrial Engineers student chapter. Over the past year, he supervised four industrial and systems engineering senior design projects at Thermo Fisher Scientific and L-3 Communications.

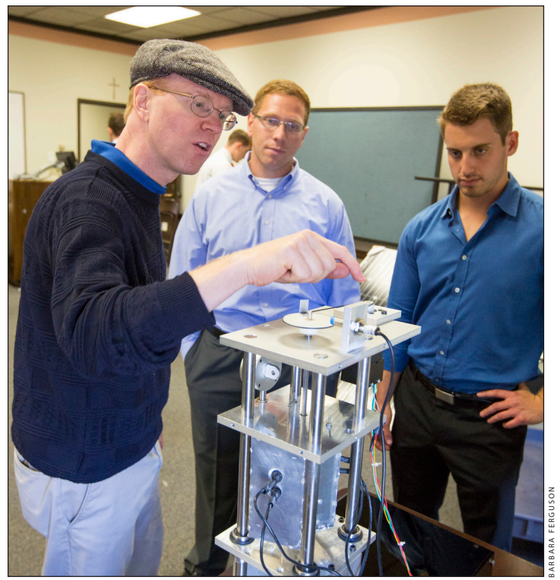
Ming Huang, PhD, chair and professor of mechanical engineering, has been leading the school's curricular improvement efforts in streamlining the mechanical engineering curriculum with the goal of increasing its value and flexibility for ME majors. His current research focuses on the design and development of special robotic mechanisms for use in dental surgery. He is collaborating with a research group led by Professor Edward Yau at National Chung Cheng University at Taiwan on this initiative.

Frank Jacobitz, PhD, professor of mechanical engineering, continued his work on turbulence dynamics in flows with shear and rotation. As part of an international team of scholars, he published an article entitled "Nonlinear Dynamics and Anisotropic Structure of Rotating Sheared Turbulence" in the journal Physical Review E. Co-authors are Aziz Salhi (Tunis, Tunisia), Kai Schneider (Marseille, France) and Claude Cambon (Lyon, France). The study disentangles linear and nonlinear dynamics at different scales of the turbulent motion. Dr. Jacobitz feels strongly about developing research skills in undergraduate students. With a group of juniors, he published an article on creativity in engineering, which started out as a freshman project. The study, entitled "Free Your Mind — Unlock Your Inner Creativity," was published in the *International Journal of Innovative Technology and Creative Engineering* with USD students Alyssa Black, William Dow, Stephanie Harrison, Adam Krebs, Kathleen McGuire, Philipp Storch, and Jessica Urbano as well as USD faculty members Bradley Chase and Thomas Schubert. Furthermore, Dr. Jacobitz published a book chapter entitled, "A Microvascular Model in Skeletal Muscle Fascia" with Niki Yamamura and Adam Jones (USD graduates) as well as Geert Schmid-Schönbein (UCSD bioengineering faculty). Dr. Jacobitz taught a senior-level study-abroad fluid mechanics course in Marseille in 2013 and a sophomore-level thermodynamics course in London in 2014. He also participated in a USD faculty development trip to South Africa.

Ernest M. Kim, PhD, associate professor of electrical engineering, Thomas F. Schubert, Jr., PhD, professor of electrical engineering and Frank G. Jacobitz, PhD, professor of mechanical engineering, authored a paper entitled, "Student Peer Teaching in Engineering Laboratory Situations," which was awarded the Best Paper Award in the ASEE Division of Experimental and Laboratory Oriented Studies.

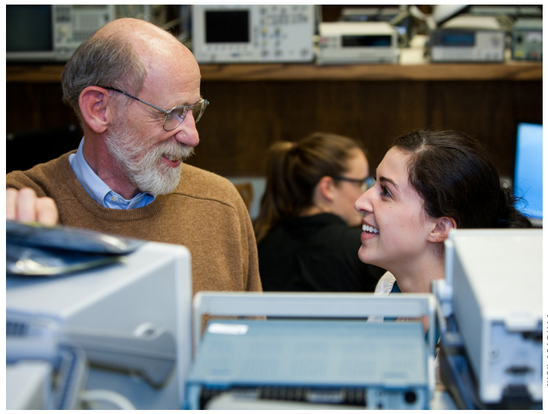
James Kohl, PhD, professor of mechanical engineering was promoted from associate to full professor.

Kathleen Kramer, PhD, professor of electrical engineering, recently joined the Engineering Accreditation Commission of ABET whose members lead the review of programs and render decisions about accreditation for engineering programs at 468 universities worldwide. She presented her paper on "Threat Assessment for GPS Navigation" at the International Symposium on Innovations in Intelligent Systems and Applications in Alberobello, Italy in June 2014, and chaired that conference's session on industrial applications. Last spring, she was also nominated for an Athena Pinnacle Award in recognition for paving the way and providing high-level opportunities for women in science and technology.



BARBARA FERGUSON

Susan M. Lord, PhD, professor and chair of electrical engineering, received the Nikola Tesla Chain for outstanding achievements in the field of engineering and pedagogy from the International Society of Engineering Education at its conference in Kazan, Russia in September 2013. In June 2013, she was the first USD faculty member to be named a fellow of the American Society for Engineering Education. The grade of fellow is conferred for outstanding and extraordinary qualifications and contributions to the field. Dr. Lord and Michelle Camacho, PhD, chair of Sociology at USD, published *The Borderlands of Education: Latinas in Engineering* in 2013, which is available on Amazon.com. Dr. Lord presented work about her experience teaching in China at the EDUCON conference in Istanbul, Turkey in April 2014.



NICK ABADILLA

Mikaya Lumori, PhD, professor of electrical engineering, has had many major achievements in 2013, including a technical paper on system identification and signal processing in which he was the lead author, titled, "Smoothing the LPM Estimate of the Frequency Response Function via an Impulse Response Truncation Technique." He also continued a research collaboration that's been ongoing since 2007 with Professor Johan Schoukens, chair of the Department of Electrical Engineering at the Free University of Brussels, Belgium. He spent the past summer in Brussels to continue this research collaboration.

Truc T. Ngo, PhD, assistant professor of industrial and systems engineering, is currently mentoring 10 USD undergraduate engineering students working on several research projects, with a common theme of sustainability, some with a humanitarian focus. Among these are the Rice Pollution Solution (the 2014 USD Social Innovation Challenge grand-prize winning project), a Dominican Republic water treatment project and an organic semiconductor project with SPAWAR. Dr. Ngo traveled to the Dominican Republic last spring with two students to assess and identify potential engineering student opportunities. In July 2014, Dr. Ngo attended a conference in Washington, D.C. with one of her co-authored students for a research presentation. Dr. Ngo has also published a research paper this year in the Polymer-Plastics Technology and Engineering journal.

Rick Olson, PhD, professor of industrial and systems engineering, has been appointed associate dean of the Shiley-Marcos School of Engineering. He is responsible for student affairs. Last year, he used the innovative "flipped classroom" strategy to teach Engineering Probability and Statistics and presented the experience at the annual American Society for Engineering Education conference in June 2014.

For a list of all engineering faculty, go to www.sandiego.edu/engineering.

new faculty

To the fifth power

Five new faculty members join the School of Engineering

by Julene Snyder

Five new faculty members joining USD's Shiley-Marcos School of Engineering this fall will help to shape new curricular specializations in bioengineering, sustainability and software. These positions are part of the school's overarching strategy to offer students a more flexible curriculum that includes authentic, real-world engineering challenges and projects.

"We are rapidly becoming one of the premier undergraduate schools of engineering in the country," says Founding Dean Chell Roberts. "We welcome these five outstanding new faculty members, and are confident that they will make significant contributions to our students and strategic goals."

Judging from the quintet's impressive achievements thus far — coupled with their enthusiasm, expertise and passion for teaching — that's most definitely an understatement.

Human perspective

For Odesma Dalrymple, PhD, there's nothing more important than making a positive impact on real lives. "Not just for profit, or for financial gain," she says. "Finding the place where engineering intersects with global development really resonates for me." Dalrymple, a native of the Republic of Trinidad and Tobago, is an engineering education scholar by training. She earned a PhD in engineering education from Purdue University as well as a master's degree in industrial engineering and a BS in electrical engineering, both from Morgan State University.

"I switched to industrial engineering for my master's because I wanted something with a more human side," she explains. Her work on a research project studying cardiovascular disease in Baltimore's public housing projects further sparked her interest in staying engaged with community. While for a time, she considered going into public health, in the end, engineering education proved a perfect fit.

"This field allows me to do what I always had a passion for, and not abandon what I've been doing for so long." Her research focuses on tools and techniques that can be readily applied in real engineering learning environments to improve student learning and teaching. "It's all about engaging in the more humanistic side of engineering."

ODESMA DALRYMPLE

Founding Dean Chell Roberts has an overarching strategy to offer students a more flexible curriculum that includes authentic, real-work engineering challenges and projects. He feels these five new faculty members will make significant contributions to students.

Dalrymple is excited to be joining the faculty of USD's Shiley-Marcos School of Engineering as assistant professor of industrial and systems engineering. "The university has a strong interest in global development, and is a study abroad leader, and that resonates for me. I too have an appreciation and respect for global interaction, and I plan to share that global perspective with my students. While of course my teaching will be hands-on — they'll be doing, making, building — we'll stay focused on the human aspect of engineering."

Hands-on

It's safe to say that Daniel "Danny" Codd, PhD, has no problem getting his hands dirty. This is nothing new; as a teenager, local skate shops would ask him to build their skateboard ramps. Although on day one he didn't know what he'd major in as an undergraduate student at the University of California, San Diego, he did know what was most important to him: "I wanted something I could see and put my hands around."

After earning his BS summa cum laude in mechanical engineering, he went away from home for the first time when he chose Stanford for graduate school. It was a perfect fit. "While UCSD was theoretical and rigorous, Stanford was very hands-on, it was the engineering science behind design approach." Clearly, he'd found his people: "One guy used WD40 as an air freshener," he laughs.

DANIEL CODD

A trusted advisor urged Codd to get some real-world experience before pursuing further studies; it was advice he took to heart, working with a number of consumer product, industrial and medical device development firms throughout Southern California for the next several years. Perhaps the one closest to his heart is KVA Stainless. "It grew out of my garage," he says. "That was my first start-up experience." After the company — which produces ultra-high strength welded stainless structures — got a "great licensing deal," Codd was accepted to MIT's doctoral program and ultimately earned his PhD in 2011.

He then returned to San Diego, continuing to consult with a number of Sorrento Valley companies and serving as an adjunct professor at USD. He's excited to be a part of the nascent School of Engineering as an assistant professor of mechanical engineering. "My students should expect a hands-on, problem-based learning environment," he explains. "I like to keep them engaged, keep it challenging, yet enjoyable."

And they probably shouldn't worry too much about getting their hands dirty.

Practical applications

Imane Khalil, PhD, has displayed an aptitude for math dating back to her early childhood. In fact, her parents had a habit of presenting her to a roomful of people who would call out long strings of numbers, which she would add together on the spot. "Like show-and-tell," laughs Khalil, who says she grew up knowing she wanted to be an engineer. "I was always fascinated by how things work."

Born and raised in Lebanon during that country's violent civil war, Khalil moved to San Diego in 1989 and earned a BS, MS and PhD in mechanical engineering from UCSD. She says that being one of very few women in her classes never bothered her. "Instead, it prepared me for the working world," she says. "I'm very used to being one of the only women in the room."

Her career, much of which has focused on industrial and government research, has been impressive. After a stint at Hamilton Sundstrand, she worked at Sandia National Laboratories, where she was a developer on nuclear power plant modeling software and Sandia's primary physics simulation codes. In her last 10 years at Sandia, she managed teams of engineers working on multi-million dollar projects like the Mars Curiosity Rover and the Strategic Petroleum Reserve. She's also worked as an adjunct professor teaching thermal dynamics and the senior engineering design class at the University of New Mexico.

"Students like to do a lot of practical application, and that's great. And as much as I love digging into equations, I want to make sure that everything makes sense," says Khalil. "The most important thing a professor can do is to keep students motivated and excited." Which isn't to say that her students shouldn't expect to work hard.

IMANE KAHLIL

"I expect a lot from people. I'm a hard worker and I think that those who want to get somewhere in life have to learn how to work hard in college. And I'm the first to lead by example."

New faculty joining the Shiley-Marcos School of Engineering will help fufill the promise to imagine, innovate and inspire.


JAE KIM

Big issues

Perhaps the most salient fact about Jae Kim, PhD, is his endless energy. "I've always been interested in many different things, and in seeing the world from multiple perspectives" he says. While he initially majored in civil engineering as an undergraduate at UC Berkeley, he subsequently switched majors to mechanical engineering and applied concurrently to the business school, earning a dual BS in 2007.

"In graduate school, I started getting more serious about engineering," he recalls. "But it was climate change that struck me the most, even in the non-engineering courses I took. It's the defining problem of our generation, a big issue that affects everyone." Subsequent degrees followed — an MS in mechanical engineering from UC Berkeley in 2008, an MS in operations research engineering from the University of Southern California in 2011, and most recently, a PhD in industrial and systems engineering from USC in 2014 — all feeding his interest in issues surrounding energy and sustainability.

"As income around the world rises, what's great for the middle class isn't always great for the environment," he says. "It's complex: What leads to climate change starts as many, many small problems. To solve it is going to take a lot of work, a lot of young people devoting their entire careers to it."

Kim's research interests are in renewable energy systems, the environmental impacts of new technology, evaluation of transportation technologies and sustainable enterprises. His current work focuses on modeling the mass-market adoption of electric vehicles in Los Angeles to assess its impact on energy load and greenhouse gas emissions.

"I think it's important to understand the world in a broader sense. Throughout my life, I've interacted with different types of people. The advantage, for me, is that I'm not rigid in my views." When it comes down to it, USD's new assistant professor of industrial systems engineering is a glass half-full kind of guy.

"I see teaching as a great privilege. It truly is one of the most noble professions."

Straight answers

Throughout his long and multi-faceted career, David Mayhew, PhD, has straddled the intersection where hardware meets software. A successful entrepreneur, software engineer, system design engineer and educator, he earned his PhD from Virginia Tech in computer science, and has worked for companies including IBM, Digital Equipment Corporation, Intel and Advanced Micro Devices (AMD).

"For AMD, I invented interesting stuff," he says. Part of that stuff was a project in which he pioneered an entirely new switch technology, termed the Server Aggregation Switch, a mechanism for building monolithic switches on a scale and speed that is otherwise impossible.

Although he's had many successes in the corporate world, Mayhew's heart truly belongs to higher education. "Teaching is the most wonderful experience there is," he says. "My style is that I wave my arms a lot, I'm Socratic, I do things wrong so that students can discover how to do things right. The simple solution is usually wrong. I ask them, 'If this isn't right, what's wrong?' Students learn quickly not to use a pen in my class. There's a lot of erasing."

He's given a lot of thought to providing students with knowledge that will stick with them throughout their working lives. "If you give someone a fact without anything to attach it to, they'll forget it in hours, if not minutes. Without context, it's simply not remembered."

During a stint as professor of practice at Arizona State University, Mayhew continued his long association with School of Engineering Dean Chell Roberts. "We've talked at length about the future of higher education. I believe what he's doing at USD is the right thing. We are in agreement that in the modern world, engineers don't build stuff with their hands so much as they build stuff with computers. Our major goal is to figure out how to integrate computers and software into what they're learning across the school as a whole."


DAVID MAYHEW

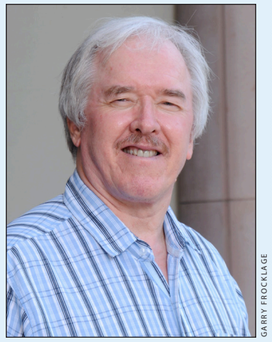
Clearly, Mayhew is on board with his new position as professor of practice at USD. In fact, his son will be starting school here as a freshman this fall and plans to major in engineering. "If you need any further proof that I believe Dean Roberts is doing the right thing, well, there you go," he says.

Our dedicated faculty and staff are committed to the success of the Shiley-Marcos School of Engineering. We are proud to be part of the only school in the United States where all engineering graduates automatically earn a BS/BA degree. We want to hear from you!

University of San Diego
Shiley-Marcos School of Engineering
Loma Hall
5998 Alcalá Park
San Diego, CA 92110
(619) 260-4627
usdeng@sandiego.eduiego.edu


SAM BURT

Name: Sam Burt
Title: Laboratory technician
When did you join engineering?
September 2012
Favorite part of my job:
"Working with students and watching them grow with their machining-type work."


GARRY FROCKLAGE

Name: Garry Frocklage
Title: Engineering manager
When did you join engineering?
July 1989
Favorite part of my job:
"So many jobs, so little time! It's exciting to work with the different types of students and the excellent faculty/staff/janitors we have."


JEFF HOIT

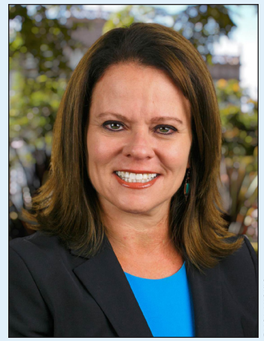
Name: Jeff Hoit
Title: Laboratory technician
When did you join engineering?
September 2011
Favorite part of my job:
"I get paid to play!"


CHOA KANG

Name: Choa Kang
Title: Budget manager
When did you join engineering?
September 2013
Favorite part of my job:
"Bringing continuous process improvement and working with great coworkers."


JOCELYN KUYKENDALL

Name: Jocelyn Kuykendall
Title: Executive assistant
When did you join engineering?
January 2005
Favorite part of my job:
"Always busy in the department … never a dull moment! Also, the faculty is nice to work with."


ELISA LURKIS

Name: Elisa Lurkis
Title: Director of development and alumni relations
When did you join USD?
January 2009
Favorite part of my job:
"Working with a dean who has an exciting vision and knows how to make things happen!"


LORENA SILVAS

Name: Lorena Silvas
Title: Executive assistant to the dean
When did you join USD?
April 2004
Favorite part of my job:
"Working with all sorts of groups of people — such as administration, faculty, industry, parents and students — always keeps my job exciting."

Dreams into Reality

Entering an exciting new era of engineering at USD

by Trisha J. Ratledge

The public often defines engineering by its tools: the math and science, formulas and precise labors that frame the day-to-day work.

But look around Chell Roberts' office and you see instead the ideas that have sprung to life through those tools — the patents, discoveries and inventions that elevate our lives. These ideas represent the essence of engineering and its process of discovery, says the founding dean of USD's Shiley-Marcos School of Engineering. It's how some of our brightest minds lit up the night, transmitted voices across continents, and catapulted astronauts from the Earth to the moon.

Engineers ask, "What if?" And then they find the answer. While their tools are precise, the practice of engineering is messy and fuzzy and open-ended, Roberts says. It's where ideas are tested and genius is realized. It's where the inconceivable becomes tangible. It's where darkness turns to light.

And it's about to enter a new era at USD.

How We Got Here

USD's engineering program was founded in 1987 with a handful of students and two faculty members, housed first within the College of Arts and Sciences, and then in the School of Business Administration. By 2013, the program was widely respected, with 360 students, 20 faculty and a ranking of 22nd nationally among schools that do not offer a PhD by *U.S. News & World Report*.

A transformational gift of $20 million from Darlene Marcos Shiley made the next step possible: to establish the Shiley-Marcos School of Engineering, the name honoring the philanthropist and her late husband, Donald Shiley, co-inventor of the artificial heart valve that revolutionized heart surgery and saved nearly a half million lives.

With this gift came the opportunity to define the future of engineering education at USD, from curriculum to facilities. Industry leaders have long called for young engineers who can step into their first job and solve complex problems to industry standards. Building upon its solid foundation, the school will meet this call by emphasizing a rich discovery process and expanded design core, coupled with technical expertise and multidisciplinary collaboration from day one.

Where We're Going

"You walk in the front door and there is an ideation space, where you write on the walls, you create an idea," Roberts explains, tapping the blueprints for the school's new design center that will support project-based learning, scheduled to open in Loma Hall by the fall of 2015. From ideation, budding engineers move next door to Donald's Garage, where they will fabricate prototypes and test ideas. The third area is the production room, where students will build a finished, tested piece. Phase 2, scheduled for completion in the summer of 2016, will include more studios and garages.

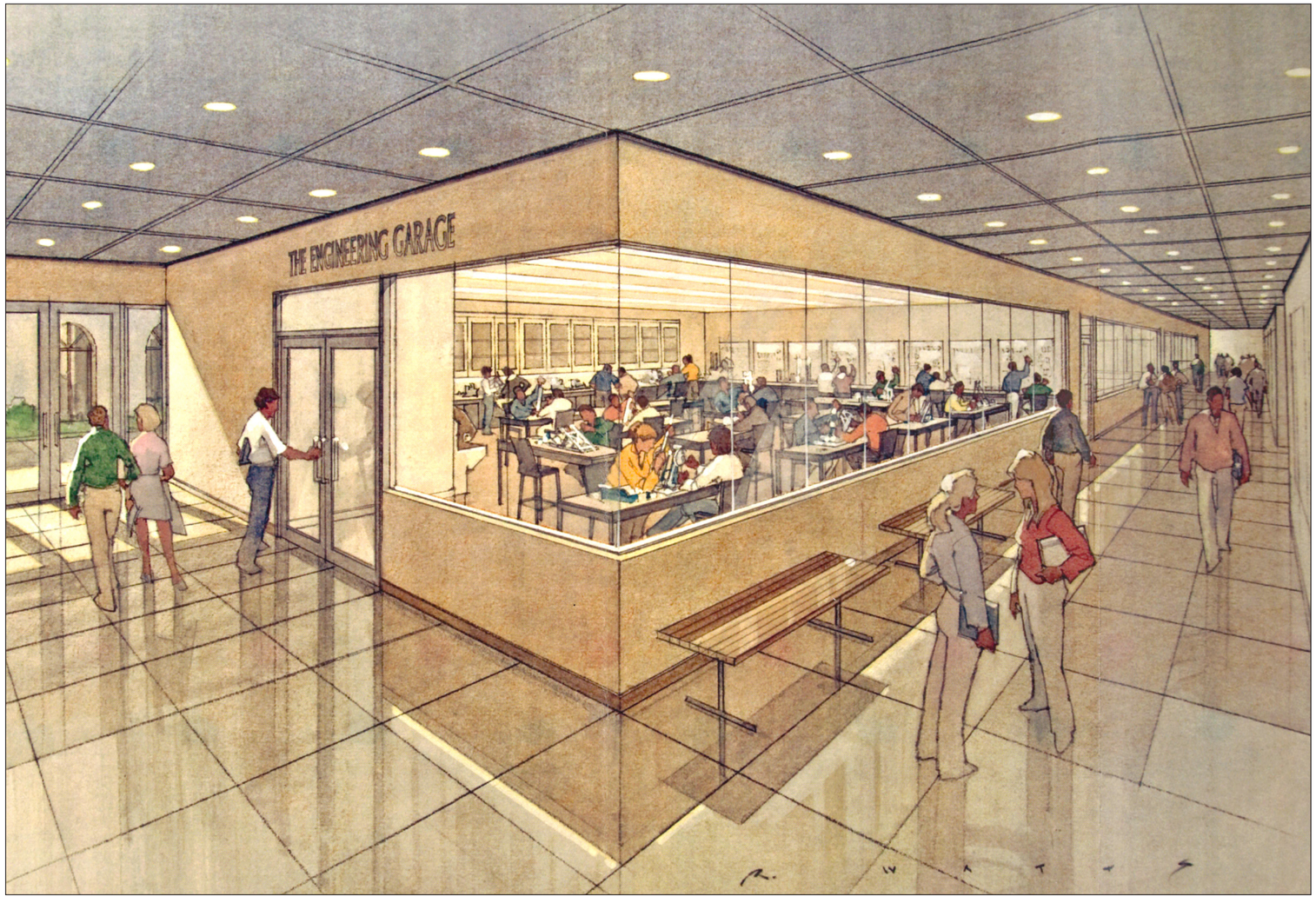
"If you are going to invent and create and solve problems where the answer can't be dictated immediately on a blackboard, you don't do that in a traditional classroom," Roberts explains. "You have to be able to tinker with things, to make mistakes and errors and then build and test and create."

This same dedication to innovation will be applied to the curriculum, which is already known for its unique dual BS/BA degrees in mechanical engineering, electrical engineering, and industrial and systems engineering. The school is developing a fourth BS/BA degree in engineering with three specialization options: software engineering, bioengineering and sustainability. Any of these specializations can be spun into separate degree programs when student interest calls for it. A master's program may be introduced in the next few years as well.

What Comes Next?

Complementing the enhanced curriculum and design components will be faculty with high-level entrepreneurial and industry experience who can mentor student teams "to work in the engineering cycle and create the next innovation," says Roberts.

In fact, by the time these engineering students are seniors, they will have the technical proficiency and creative savvy to take on meaningful projects, he adds, which could involve developing a new product with an industry partner or entrepreneur, bringing their own enterprise to fruition, or fulfilling a humanitarian mission through engineering.



Rather than a departure, these developments are the logical extension of an engineering discipline that has grown in stature year after year, Roberts points out. With technical expertise as well as a strong liberal arts core, USD engineers are different by design.

A Broader Context

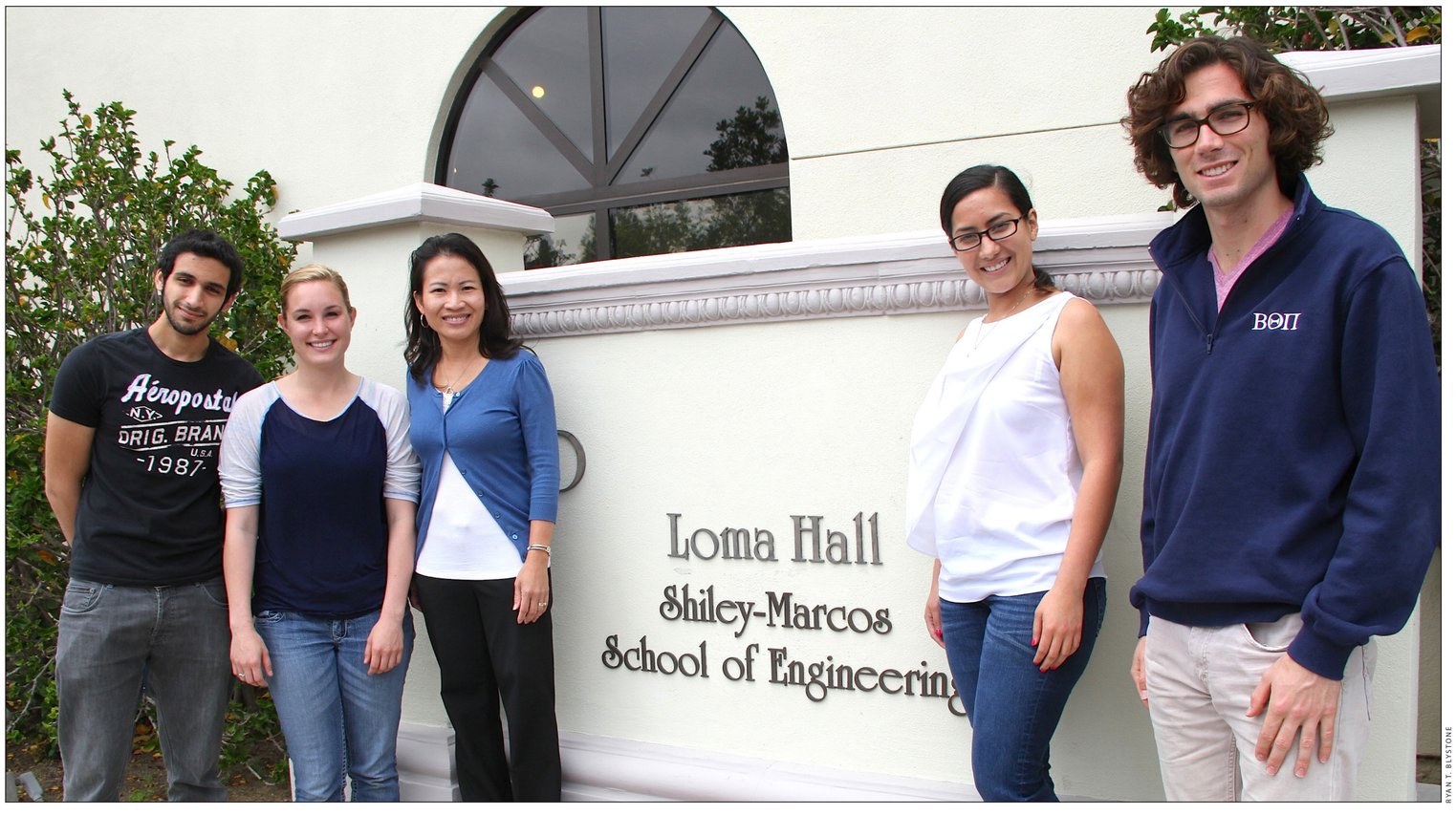
"Our students graduate not only with the technical engineering depth but with breadth of understanding, cultural awareness, global awareness, communication skills, ethics and more," Roberts says.

"They will lead the more examined life, and will think and care about what they do in a broader context and about how their engineering work impacts society. These are characteristics that are natural to this program."

Even at full capacity, the Shiley-Marcos School of Engineering will remain a place where students are individually mentored to develop superior skills and to express their engineering capabilities in ways that are personally gratifying. With a maximum enrollment of approximately 700 students, Roberts anticipates having 40 to 50 full-time faculty and 10 to 20 industry partners. Importantly, USD's engineering enrollment is 33 percent female, compared to a national average of 19 percent. Roberts hopes to continue increasing that percentage.

A PhD-level engineer with the heart of an inventor — he previously served as executive dean and chair of engineering for the College of Technology and Innovation at Arizona State University — Roberts' mission is just a glance from his desk.

"It's not only 'Build a better mousetrap and the world will beat down a path to your door,'" he says, gesturing to the quote painted on his wall and the vintage 1800s mousetraps that sit below it. "It's, 'Build a better engineering program' and they will, too. We are building the best. It's an exciting time to be here."



RYAN T. BLYSTONE

Industrial and Engineering Systems Assistant Professor Truc Ngo (third from left) is flanked by student Social Innovation Challenge winners, the Rice Pollution Solution.

Compassion. Creativity. Connection.

Engineering faculty members committed to building a better world

by Mike Sauer

In a quiet corner office on the western end of Loma Hall's second floor, Industrial and Systems Engineering Assistant Professor Truc Ngo pauses to reflect on her position at the forefront of USD's efforts to build a better world — and her ear-to-ear grin suggests she's exactly where she wants to be.

"You know, I've always had an inclination to find solutions to problems, and I've been that way ever since my childhood," she explains. "This idea of using the discipline of engineering to help those less fortunate is not a new one, but that doesn't make it any less exciting or gratifying to be working with students and faculty who have a heart for helping."

Ngo's bubbling enthusiasm stems from the Shiley-Marcos School of Engineering's commitment to supporting the principles of humanitarian engineering, which, by definition, is research and design meant to directly improve the well-being of marginalized communities around the world. It's an undertaking near-and-dear to Ngo's heart, and she's excited about the creative projects her students are developing in the name of compassion.

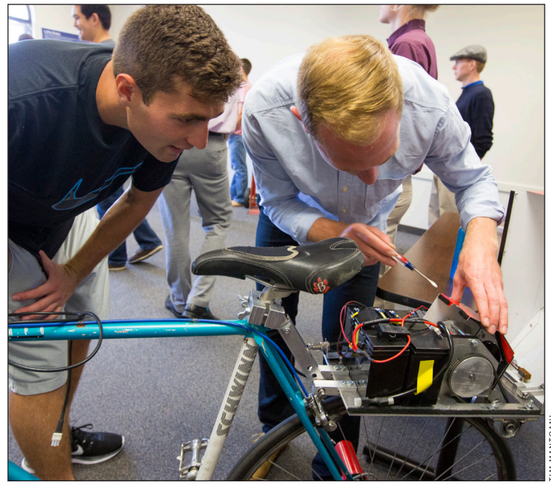
"I was born in Vietnam, which had and has its own share of problems as a developing country," she says. "This idea of humanitarian engineering — using our research and skill-sets to help the underserved — is something I've always been interested in. In fact, it's one of the reasons I'm here at USD."

Charged with creating an elective engineering course that would connect students with the real-world problems facing certain populations, Ngo developed "Sustainability in Engineering," a class that was first introduced in the spring of 2013. Not sure how students would respond to a course of study where service and conceptual innovation shared equal billing with nuts-and-bolts scientific research, Ngo was floored when the course filled within a week — and had a waiting list that seemed to grow by the hour: "I thought it might be well-received, but I didn't think it would be that popular!" she enthuses. "It shows what I think we all knew; our students are well aware of the problems in the world, and they want to help solve them."

While the projects she's reviewed have ranged widely in scope and significance, Ngo has been consistently impressed by her students' aptitude for providing creative and sustainable solutions to some of the world's most pressing problems. "We've had everything from a backpack equipped with essential items needed to deal with natural disasters to a rainwater catchment system for rural populations in Vietnam," she says. "Oh, and then there was the Rice Pollution Solution."

Conceptualized by students Abdalla Almulla, Chase McQuarrie, Miluska Garcia and Clay Mosilino (pictured from left to right in photo at left with Professor Ngo), the Rice Pollution Solution project examined and developed a solution to the rice contamination issue currently prevalent in several of China's agricultural provinces. The team's innovative approach was to alter basic rice farm infrastructure in order to take advantage of phytoremediation techniques. They submitted a proposal for inclusion in USD's Social Innovation Challenge (SIC) last spring, and ultimately received a $20,000 award for their efforts.

All told, six group projects from Ngo's course were submitted for consideration in the SIC, and their innovative concepts went above and beyond. "I told them up front that they have to submit their projects for the SIC, and that they had to be sustainable solutions that needy populations could implement and operate themselves. They came up with some wonderful ideas, and really exceeded my expectations."



TIM MANTOANI

Not one to rest on her laurels, Ngo recently traveled to the township of El Cercado in the Southern Dominican Republic, a rural community plagued for decades by water contamination issues. After meeting with residents to discuss their primary needs, Ngo developed a plan to install chlorinators for water distribution, and to build basic cooking stoves to help protect villagers from the ravages of disease brought on by consuming spoiled and improperly prepared food. She hopes to implement her plan when she and several of her engineering students return to the community in January 2015.

Associate Professor of Industrial and Systems Engineering Brad Chase is Ngo's next-door neighbor in Loma Hall, and shares his peer's passion for connecting students with the value and necessity of service. "Dr. Ngo and I have hallway conversations about what we can do to help our students understand firsthand how their education can help people, and we both really believe that those interested need to be out in the field implementing their ideas into action."

Case in point: Chase encourages students to join him on day trips to Tijuana with Amor Ministries, a nonprofit group dedicated to improving the quality of life for underprivileged communities across the globe. There they build basic, two-room homes for needy families in the area. Student response has been immediate and positive.

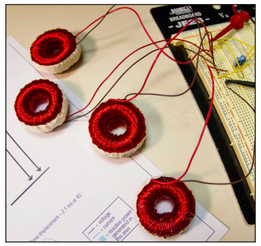
Looking to capitalize on the forward momentum, Chase, who also serves as faculty advisor for the USD chapter of the international nonprofit organization Engineers Without Borders, is developing a plan for a water quality project that would serve rural populations in El Salvador. He's buoyed by the fact that the work is in lockstep with his and Ngo's big-picture educational vision for their students.

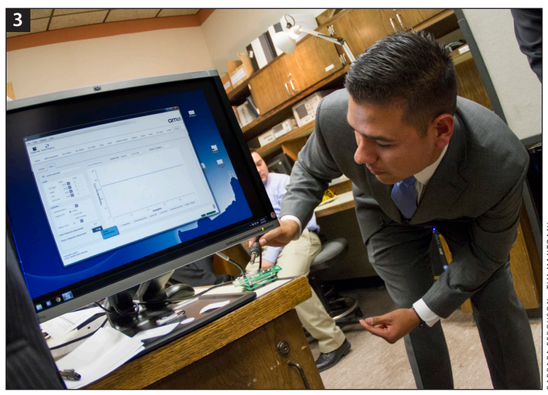
"Ideally, I'd like to see all of my students get involved in service projects before they graduate," Chase says. "Having them experience these opportunities while they're still in school — so they can take that knowledge forward and help people — that's something that benefits us all."

Industrial and Engineering Systems Assistant Professor Truc Ngo (third from left) is flanked by student Social Innovation Challenge winners, the Rice Pollution Solution.

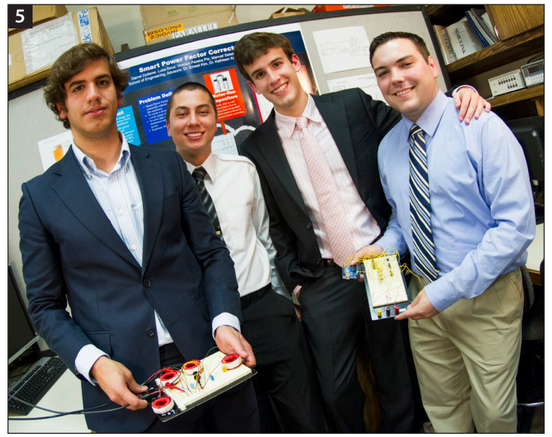
AN INNOVATION STATION

2014 Engineering Showcase highlights sustainable solutions





BARBARA FERGUSON - TIM MANTOANI



Engineers are always looking for ways to do things faster, better and more efficiently. Now they're looking for ways to make them greener, too. All of these efforts were on display at the Engineering Showcase last spring, which featured both senior design and other projects. Founding Dean Chell Roberts looked pleased as he visited students and discussed their work with them. "This year has started the path to creating engineering programs where students design, innovate and inspire," he said. "And when you look at all of this, doesn't that inspire you?"

Pictured here are students, professors and observers of the 2014 Engineering Showcase: **1)** Antwane Green, Lucia Romero Tejera and Professor Mikaya Lumori; **2)** First year student Ryan Merrill and Kellen Griffiths; **3)** Sergio Palacios; **4)** Adam Krebs and Reem Alfazran; **5)** Manuel Salazar, Darrel Dotterer, Vinicius Pereira and Luke Nicol; **6)** Chase McQuarrie and Xiao Jin; **7)** Showcase observer and Julian Ringhof; **8)** Shane Fontaine, Ryan Maliszewski, Dean Chell Roberts, Christopher Anderson and Gonzalo Albaledejo.

6) Chase McQuarrie and Xiao Jin;

class notes

Vision Statement

USD's Shiley-Marcos School of Engineering is nationally recognized for developing world class engineers empowered to become leaders with global perspective and social awareness.

[1997]

Cmdr. Tom Mack (EE) transferred to the Navy Communications Satellite Program Office at SPAWAR San Diego, where he is working as a systems engineer for the next generation satellite communications system.

[2000]

Ricardo Valerdi (EE), associate professor of systems and industrial engineering at the University of Arizona, recently started a company, The Science of Sport, to work with professional sports teams to promote STEM education. So far, they've established Science of Baseball programs with several Major League Baseball teams (Red Sox, Nationals, Diamondbacks, Padres and Angels) and a Science of Soccer program with one Major League Soccer team (LA Galaxy).

[2001]

Sally Mahdavi (EE) was promoted to project engineering manager at General Atomics.

Ika Santoso (ISyE) works at Bank Central Asia where she is a credit card unit business officer. On May 15, 2014, she gave birth to a beautiful baby girl, Isabel Maia Setiawan.

ISABEL MAIA SETIAWAN

[2003]

Andrew Putnam (EE) is the lead research engineer for Microsoft's Catapult system, which provides a way to "massively increase the computing capabilities of its data centers," according to a June 2014 article in The Register. The project was highlighted in a tweet by Microsoft CEO Satya Nadella. The paper Andrew contributed to that represents several years of work is entitled, "A Reconfigurable Fabric for Accelerating Large-Scale Datacenter Services."

[2004]

Melody Ablola (ISyE) was awarded an Arup University scholarship to attend the opening weekend of the 2014 Venice Biennale in Venice, Italy. This year's Biennale is entitled "Fundamentals," and focuses on the evolution of architecture over the past 100 years. The prize allowed Melody and an architect partner to spend three days in Venice viewing the pavilions and exhibitions to discuss architectural design and to promote engineering collaboration. She continues to advise on operational performance and logistics at Arup.

Russell DeCaprio (ISyE) celebrated five years at Booz Allen Hamilton in January 2014 and recently completed the INCOSE Certified Systems Engineering

MELODDY ABLOLA

Professional certification. Outside of work, Russell and his wife, Lauren, have been keeping busy with their two boys, Jackson, 3, and Lincoln, 2, and their home business, Papercut Invites, a special occasion stationery company.

Russell DeCaprio (ISyE) celebrated five years at Booz Allen Hamilton in January 2014 and recently completed the INCOSE Certified Systems Engineering Professional certification. Outside of work, Russell and his wife, Lauren, have been keeping busy with their two boys, Jackson, 3, and Lincoln, 2, and their home business, Papercut Invites, a special occasion stationery company.

Kyle Thompson (ISyE) is still employed at Northrop Grumman, where he has a new job as a commodity manager for assemblies, leading a cross-functional supply chain team. In August 2013, he was selected for, and kicked off, a yearlong developmental rotational assignment in the business development organization. In October 2012, he and his wife moved into their first house in Playa Del Rey, Calif. after completion of a full remodeling project.

[2005]

Erin (Fullinwider) Alex (EE) and her husband welcomed their son, Emmet Jon, into the world on Aug. 5, 2013. The couple recently bought their first home in Redondo Beach, Calif. Erin is working at AMA Consulting Engineers in Los Angeles. Emerson College, a project on which Erin was the lead electrical engineer, just won the grand prize at the Los Angeles Architects Awards.

John Crawford III (ISyE) has been working as a senior engineer at SpaceX for the past five years. He married Beth Eberlein in July 2013; the couple is expecting their first child in December 2014.

Michelle Esteban (EE) recently accepted a new position with Hewlett-Packard as patent counsel in its legal department.

Holly Lyons (ISyE) continues to work in Chula Vista, Calif. with United Technologies, which acquired her previous company, Goodrich, in 2012. She was recently promoted to the position of deputy regional manager for supplier development. This position is responsible for developing and improving the performance suppliers in the Western United States for all business units under the United Technologies Aerospace Systems division. She married Teddy Minner in May 2013. The couple celebrated their one-year anniversary with a vacation in Ireland.

Matt Nelsen (ISyE) is still working at Dish, and has been promoted to senior manager of process improvement, leading a team charged with finding efficiencies, standardizing processes and driving down costs. "As a team, we save the company millions of dollars a year! In my personal life, Aubrey and I built our dream home in Colorado, which we have been living in for about a year and a half. Additionally, we are expecting our first child (a boy) in July of this year. Life is good," he writes.

ALI ALMATROUK

[2007]

Ali Almatrouk (EE) reports that Makers Inc. signed an agreement with National Instruments as a value-added reseller in Kuwait. They also invested in Studio Toggle, a design studio, and acquired the delivery company Porter Express. They are working on growing the latter by integrating technology into operations and adding new products and services to customers. Additionally, Ali was elected as a board member in the American Business Council - Kuwait (ABCK). The accompanying photo shows visitors to the Kuwait Chamber of Commerce and Industry. They are, from left to right: Scott Beverly, vice chairman of ABCK; Yousef Dashti, board member of ABCK; Khaled AlSagar, vice chairman of KCCI; Ali Almatrouk, board member of ABCK and Gregg Stevens, chairman of ABCK.

Stephanie Hay Graham (ISyE) married her longtime boyfriend in July 2012. "We went on an amazing two-month honeymoon in South America where we hiked Machu Picchu and did other once-in-a-lifetime things," she writes. "Last year, we moved to Oregon where I am now a manufacturing engineer at Veris industries. We bought a house and instead of having kids, we bought a dune buggy."

Mark Kondrat (ISyE) is an instructor pilot at Naval Air Station North Island, where he teaches new pilots how to fly and operate the MH-60R. He is midway through his MBA at UCSD. He and his wife, Brittney, have lived in Coronado, Calif., for more than a year. Last year, the couple traveled to Australia, New Zealand and Tahiti. They are hoping to be stationed in Hawaii for Mark's next assignment.

[2008]

Jason Gasmin (ME) was recently promoted to manual filtration solutions manager in February. He is now responsible for managing a team of technical sales specialists, design engineers and project coordinators for Eaton's cast and bag filtration product lines.

[2009]

Ashlee (Enriquez) Pitt (ISyE) married her best friend, Michael Pitt, on April 13, 2014, in San Diego.

ASLEE (ENRIQUEZ) PITT

Karl Riesen (EE) was promoted to manager of the SOC applications group at Western Digital in Irvine, Calif. He graduated No. 1 in his section of the MBA program at UC Irvine's Paul Merage School of Business.

Rich Sanchez (EE) is with SPAWAR Systems Center, Pacific's Navy research lab in San Diego, where he works on satellite communication systems for military tactical and strategic forces. He graduated from the Naval Postgraduate School with a Master of Science in systems engineering. He is also a founding member of the local MAES professional chapter, an outreach organization that promotes the development of STEM leaders in the academic, executive and technical communities.

[2010]

Sulaiman Abanumay (ISyE) worked as an intern with Citi in London for two months in 2010 and moved to Geneva for several months for an internship with HSBC in Geneva. He then returned to Citi for two years before coming back to USD to pursue his MBA degree. He adds, "I got married to Abeer Al-Sheaibi. This is definitely the most important update."

Michael Buelsing (ME) started the Leaders for Global Operations (LGO) program at MIT in June. LGO is a dual-degree fellowship program with the MIT Sloan School of Management and the MIT School of Engineering.

Luma Desautel (ISyE) is living in Austin, Texas, working for BAE Systems as a value stream lead supervisor. She is pursuing an MBA at the University of Texas at Austin.

Kassandra Galvan (EE) was married to Scott Kahler on Sept.13, 2013 in San Clemente, Calif. She is a project support engineer for Regional Maintenance Center Southwest.

Justin Hall (ISyE) writes: "What am I up to these days? I'm living seasonally! I work half the year (November through March/April) in Chilean Patagonia as a guide in Torres del Paine National Park. Last season, I guided for a luxury hotel called Awasi Patagonia, but now I'm returning to work for a smaller backpacking guide service owned by a friend. In the summertime, I spend the season working for the Northwest Outward Bound School in Oregon as a whitewater/rock/mountain instructor. We offer 15- and 22-day course expeditions where we spend a week rafting on the Deschutes River, and either a week climbing at Smith Rock State Park or two weeks in the Central Cascade range. Our motto is 'changing lives through challenge and discovery!'"

Rachael McKay (ISyE) is currently working as the only engineer for the U.S. distribution center of Lululemon Athletica. She is hoping to take more of a managerial position in the near future.

Tommy Mellin (ISyE) is working at NuVasive, a medical device company in San Diego focused on the spine. He is currently a senior quality engineer supporting new product development and just received his ASQ Certified Quality Engineer (CQE) certification.

Alisa Sieber (ISyE) commissioned as a 2nd Lt. in the US Marine Corps through USD's ROTC program. After graduation, she and her husband founded a nonprofit, called Dogs on Deployment, which provides an online network for military members to connect with registered foster homes during their military commitments. The couple is now living in San Diego; Alisa is training to be a c-130 cargo pilot at Miramar, has joined a local flying club and is enjoying her home, husband and six pets.

Jessica Skaar (ISyE) is a project engineer at UTC Aerospace Systems and is pursuing an MBA.

[2011]

Brian Partida (ISyE) has been promoted to a value stream manger at GKN Aerospace. He is in charge of more than 200 people, and of manufacturing more than 10 product lines that make parts for Trent engines, military F-35 engines and the V-22 Oprey. He is happily married and the father of two.

Michael Rios (EE) is pursuing his PhD in electrical engineering at the University of Wisconsin in Madison.

[2012]

Andrew Disotell (ISyE) has worked for the past two years as an industrial engineer at General Atomics Aeronautical Systems, focusing on process improvement efforts to improve all facets of the organization. "Working closely with all groups of the organization, such as supplier quality and production control, has helped me to develop a better understanding of how an industry-leading company operates," Andrew says. "It's an exciting and rewarding experience to improve such complex manufacturing processes."

Matt Gigli (EE) accepted a new position as software developer with the Wireless Modem Firmware team in the QTI group at Qualcomm. He finished his master's of advanced studies in wireless embedded systems at UCSD in June 2014.

Roy Leyrer (ISyE) is currently working as a program quality engineer at Pratt & Whitney AeroPower in San Diego. He started as an intern in October 2010 and was hired on full-time in May 2012. "In my role as a QE, I support the APS5000A program, which supplies an APU that is used on Boeing's new 787 Dreamliner aircraft as well as supporting the MALD program that has a U.S. military application," Roy says.

Tony van der Zee (ISyE) is a first lieutenant in the United States Marine Corps stationed in Camp Lejeune, N.C. He is working as a ground supply officer with the Second Intelligence Battalion and is enrolled in the distance education program for Expeditionary Warfare School. He writes: "I'm excited to hear that we now have our own engineering school!"

[2013]

Christian Fetters (EE) recently earned a promotion at Alliant Techsystems (ATK), and is now a deputy program manager. He is responsible for the technical, financial and schedule performance of aerospace programs. He plans to apply for grad school at USD's evening MBA program for the spring of 2015. He recently spent time in the Grand Canyon and Antelope Canyon in Arizona.

CHRISTIAN FETTER

***I³@USD*, the University of San Diego's engineering magazine, is published annually each fall. Class notes are solicited each summer from alumni of the Shiley-Marcos School of Engineering.**

To submit a class note to *USD Magazine*, which is published three times a year, please email classnotes@sandiego.edu.

In 2014, USD's Shiley-Marcos School of Engineering conferred diplomas to 64 students, our largest graduating class ever. The class was comprised of 20 electrical engineers (EEs), 14 industrial and systems engineers (ISyEs) and 30 mechanical engineers (MEs).

Here is what some of our 2013 and 2014 grads have been up to:

Reem Alfazran (ISyE) is a quality control engineer for CCS in Kuwait.

Nemi Alvaro (ISyE) is working for Heb Plus Pharmacy in Houston, Texas.

Alexandra Ambrosio (ISyE) is an industrial engineer with Erb Engineering, Inc. in Poway, Calif.

Julie Brown (EE) is a junior signal processor with the Science Applications International Corporation in San Diego.

Stacy Castner (ME) is senior analyst for HVAC systems at Terremark in Miami, Fla.

Carmen Chavez (ME) is a manufacturing intern at GKN Aerospace in El Cajon, Calif.

Alex Demler (ME) is an administrator of commercial laying hens at Pine Hill Egg Ranch in Ramona, Calif.

Vanessa Donnelly (ME) is a test engineer at General Atomics in Poway, Calif.

Harmonie Edelson (ISyE) plans to take a three-week detour in London, Paris, Venice, Rome and Barcelona before starting to work full-time with Thermo Fisher Scientific in its operations rotational program. She will be a senior associate business excellence specialist; her first rotation will be global planning.

Sophie Fallon (ME) is a manufacturing engineer at Absolute Technologies Inc. in Yorba Linda, Calif.

Ian Gray (ISyE) is working at Disneyland in Anaheim, Calif.

Kaila Harris (EE) is a software developer for the Jet Propulsion Lab in Pasadena, Calif.

Travis Hill (EE) is an electronics engineer with the Lockheed Martin Corporation in Littleton, Colo.

Philip Hoskinson (ME) is a Marine combat veteran who was recently selected for a fellowship at the prestigious National Renewable Energy Lab in Golden, Colo. In 2015, he will continue his work for the U.S. Department of Energy by supporting its Sunshot Initiative, as well as continuing his research in the area of concentrated solar power as a graduate student at San Diego State University.

Travis Jackson (ISyE) is an engineering sales account manager for the Trane Company in San Diego.

Lynsey Johnson (EE) is an electrical engineering intern at CVS in Wailuku, Hawaii.

Dillon Keim (ME) is serving as a second lieutenant in the U.S. Army in Columbus, Ga.

Robert Kreyer (ISyE) is an officer in the U.S. Navy.

Connor Lind (ME) is in sales and development at Optimizely in San Francisco, Calif.

George Lockbaum (ME) is serving in the U.S. Navy.

Nachapal Methakul (ME) is an intern at GKN Aerospace in El Cajon, Calif.

Gary McLean (ISyE) is employed as an officer in the U.S. Marines.

Veronica Mora (ME) is a product design engineer for Breg Inc. in Carlsbad, Calif.

William Muldowney (ME) is a rackspace cloud onboarding specialist at Rackspace, Ltd., in Hayes, Middlesex, in the United Kingdom.

Tyler Otteson (ME) is a naval aviator.

Sergio Palacios (EE) is a military officer in the U.S. Navy in San Diego.

Ivan Reyes (ISyE) is a nuclear engineer for the U.S. Navy, stationed in San Diego.

Byron Riemhofer (ME) is a mechanical engineer at GKN Aerospace.

Michael Rose (ME) is an engineer at the Carrington Charitable Foundation in Greenwich, Conn.

Victoria Ross (ISyE) is employed with Thermo Fisher Scientific in Carlsbad, Calif.

Nathaniel Scherrer (ME) is a design engineer at Hardy Process Solutions in San Diego.

Luke Scherer-Mueller (ME) is serving in the U.S. Navy.

Justin Snelling (ME) is a field engineer at AP Water Conditioning in Santa Fe Springs, Calif.

Robert Thompson (ME) is working at San Diego Electric Sign in El Cajon, Calif.

Andrew Wood (ME) is serving with the Jesuit Volunteer Corps in Baltimore, Md.

We want to hear all about what you've been up to since graduation. Keep in touch with us by calling (619) 260-4627.

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December 12, 2014
Engineering Expo

April 25, 2015
Alumni Honors

May 8, 2015
Engineering Showcase

Darlene Marcos Shiley *established the Shiley-Marcos School of Engineering in 2013 with a $20 million gift, which honors her dedication to education and pays tribute to her late husband, renowned engineer Donald P. Shiley. Her gift gives USD engineering students the chance to be true changemakers.*